



Varying occupational stress and organisational commitment within the university staff of contrasting economies

(Cross-sectional comparative study of middle range public universities in Pakistan and the UK)

A Doctoral Thesis presented by

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ABSTRACT

This thesis investigates the varying occupational stressors and organisational commitment of the contrasting genders at the teaching and administrative positions in the contrasting economies of the UK and Pakistan. Whilst the existing literature is focused on individual cases of personal strain and resources, occupational therapists' role, social support and organisational commitment of employees, this thesis extends the current knowledge with comparative analysis in the context of gender, faculty and economy. The mixed method used is based on the combination of SEM, Chi-Square and multiple regression informed by the total of 408 survey responses, followed by a qualitative study of 98 interviews.

The results confirmed that overall organisational factors cause higher stress while psychological effects are common in the education sectors of both economies. Overall stress, and organisational commitment, is higher in Pakistan despite higher power distance and collectivism. Overall, personal factors cause more stress to females and non-teaching staff, while organisational factors often make males and teaching staff stressed. Furthermore, the physical and behavioural effects are higher amongst males and non-teaching staff, while females and teaching staff have higher psychological symptoms. Nevertheless, the causes and consequences of stress, and job-related preferences differ for gender, faculty, and economy. The statistical tests confirmed non-significant impact of occupational therapists on the affective commitment (AC), normative commitment (NC), and continuance commitment (CC). All other predictors, to some extent, have a significant effect on OC. Furthermore, males exhibit higher AC, while females often report NC and CC. Social support and stress management programmes are effective in sustaining human capital and reducing strain. The qualitative findings supported the statistical outcomes. Based on above results, practical implications are recommended to public universities for reducing stress and improving organisational commitment to sustain human capital.

Keywords: *Causes of Stress; Consequences of Stress; Comparative Analysis; Organisational Commitment; Public Universities in Contrasting Economies*

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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Haque A. U., and Oino, I. (2017) Sustaining Human Capital by Reducing Stress through Social Support Programme in Contrasting economies. Accepted in Conference Proceedings at 4th *European Conference of Behavioural Sciences and Psychology*, Brighton, UK.

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
AC	Affective commitment
AFGI	Adjusted Goodness-of-Fit Index
AMOS	Analysis of a moment structures
ANOVA	Analysis of Variance
BREXIT	British exit
CAOT	Canadian Association of Occupational Therapists
CC	Continuance Commitment
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CIPD	Chartered Institute of Personnel Development
C.R	Critical Ratio
CSHS	Centre for Studies on Human Stress
DAB	Demographic, Attitudinal, and Behavioural
DCS	Demand Control Support
DRIVE	Demand Resources and Individual Effect
DSS	Demand-Skill-Support
EFA	Exploratory Factor Analysis
EOP	Effectiveness of Occupational Therapist
ERI	Effort-Reward Imbalance
GAS	General Adaption Syndrome
GDP	Gross Domestic Product
GFI	Goodness-of-Fit Index
GW	Global Wellness Institute
KMO	Kaiser-Meyer-Olkin
HCEC	Housing Consumer Education Centers
HEFCE	Higher Education Funding Council for England
HEWS	Higher Education Workforce Survey
HDI	Human Development Index

HR	Human Resource
ID	Identity Document
IT	Information Technology
JD-R	Job-Demand Resource
JS	Job Satisfaction
M.E	Margin of Error
MS	Microsoft
NC	Normative Commitment
OC	Organisational Commitment
OST	Organisational Support Theory
PAK	Pakistan
P-E Fit	Person and Environment Fit
PJS	Perceived Job Stress
POS	Perceived organisational support
PR	Personal Resource
PS	Personal Strain
Q-Q	Quantile-quantile
RMSEA	Root Mean Square Error of Approximation
RR	Rate of Representation
SEM	Structural Equation Modeling
SPSS	Statistical Package for the Social Sciences
SS	Social Support
THC	The Health Centre
TWB	The World Bank Report
UK	United Kingdom
UKPS	UK Professional Standards Framework

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

The introduction the background and context of stress, our research agenda, aims and objectives, followed by the research problem and significance of the study. This chapter also introduces our methodology, definitions of key concepts, and the structure of the thesis.

1.2 Background and Context

Stress is present in life at various stages; it is constructive to some while destructive to others (Haque and Aston, 2016). It is an influencer - disturbing the body's natural equilibrium (Stranks, 2005). Selye classified four types of stress, namely: eustress (good stress), distress (bad stress), hyper-stress (too much stress), and hypo-stress (too little stress), (Garg and Rani, 2014). Stranks (2006) argued that from the point of distress, an individual develops either acute stress or chronic stress.

Organisational commitment is another variable that has been the focus of attention among scholars in organisational behaviour. It is defined as a psychological pact between worker and workplace (Buchanan, 1974). Allen and Meyer (1996) treat it as a positive intent exhibited by employees for attaining the organisational goal (cited Haque and Yamoah, 2014). Affective, normative and continuance commitment are claimed to be distinguishable antecedents of organisational commitment (Mowday *et al.*, 1982; Haque and Yamoah, 2014).

The education sector is critical to the economy, contributing also to society in many ways (World Economic Reforms, 2015). The sector contributes to economic growth and development (ibid). Because stress experienced by staff in educational institutions is higher in developing countries it has been argued that they require support programmes to ensure that they utilise resources more effectively (Fimain and Sontaro, 1983; Terry, 1997). Indeed, Bhatti *et al.*, (2011) and Yusoff and Khan, (2013) argued that stress has a negative impact upon the performance and job satisfaction of employees in Pakistan's education sector.

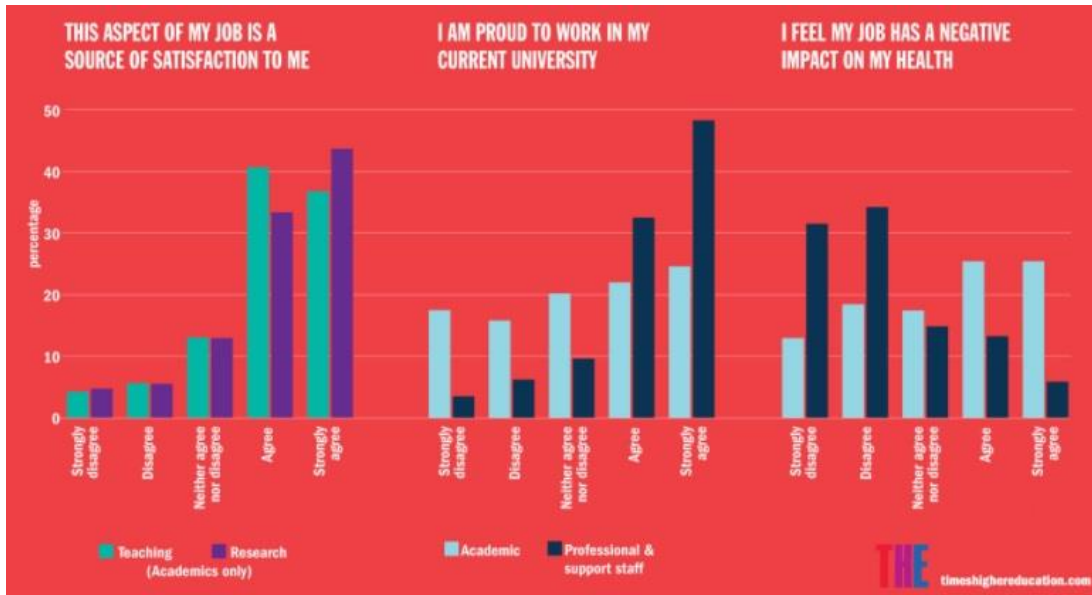


Figure 1. 1: Source – “The Workplace Survey 2016: Results and Analysis” (Grove, 2016)

Grove’s workplace survey of 2016, covering more than twenty universities, revealed a difference between academic and non-academic staff concerning job satisfaction, commitment and stress. Overall, academic staff (teaching and research) have higher job *satisfaction* in the university sector (Grove, 2016). However, according to Grove (2016), the *commitment* among professional and support staff is higher (41% against 23%). Job-related stress, affecting the health of academic staff, is higher than among non-academic staff (ibid). Frith (2017) cites Robert Half’s Survey which showed that two-thirds (63%) of the UK university workforce experience through their jobs. There is no equivalent survey data for Pakistan and economy and society that offers a useful comparison.

Most of the relevant literature confirms that stress affects employees’ wellbeing and performance (Cicei, 2012; Kumasey *et al.*, 2014; Haque and Aston, 2016; Haque *et al.*, 2016; Zehra and Faizan, 2017; Zahid *et al.*, 2017; Zehra *et al.*, 2017), as does the Global Wellness Institute’s (GWI) report (2016).



Figure 1. 2: "Increasingly unwell at the workplace" (GWI, 2016)

This report revealed that one of the major causes affecting the wellness of the workforce globally is economic insecurity (77%), followed by health concerns (76%), whereas 38% experienced occupational stress and 24% felt disengaged at work. This report revealed that stress is one of the most significant factors affecting the wellness and, to some extent, the performance of the workforce.



Figure 1. 3: “Increasing unwell at the workplace” (GWI, 2016)

The GWI (2016) results revealed that 52% of North American employees have access to wellness (social support) programme and services, followed by Europe (23%), whereas only 5% of Asian employees have access. Here, the UK was included in Europe and Pakistan is included in Asia. Therefore, we can infer that the UK workforce has greater access to wellness programmes at a workplace, than is typical in Pakistan.

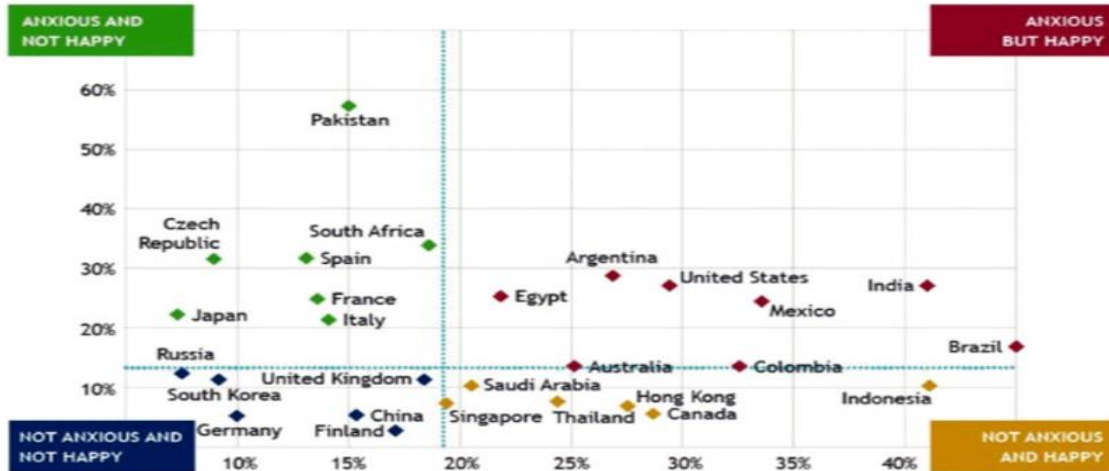


Figure 1. 4: “Anxiety Index Study - Global Report 2013” (Tribune, 2013)

According to the Anxiety Index Study Global Report (2013), Pakistan has a higher number of individuals who are “anxious and not happy” (60%), while, more UK workers are under the “not anxious and not happy” (neutral stage). In other words, whilst stress and anxiety are different concepts, (see Section 1.9), anxiety to some extent reflects stress and depression amongst individuals.

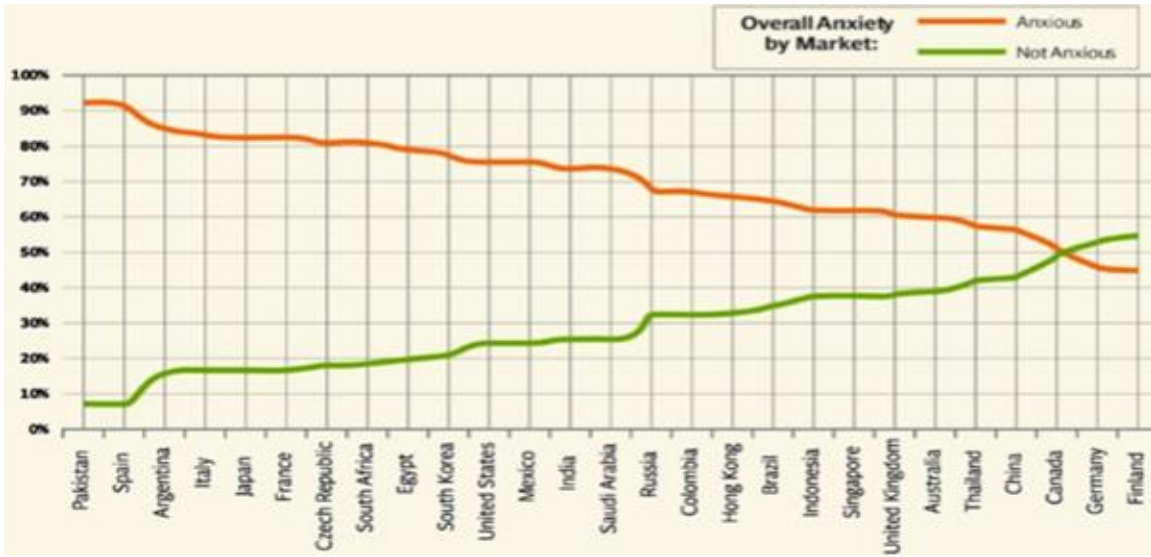


Figure 1. 5: “Anxiety Index Study - Global Report 2013” (Tribune, 2013)

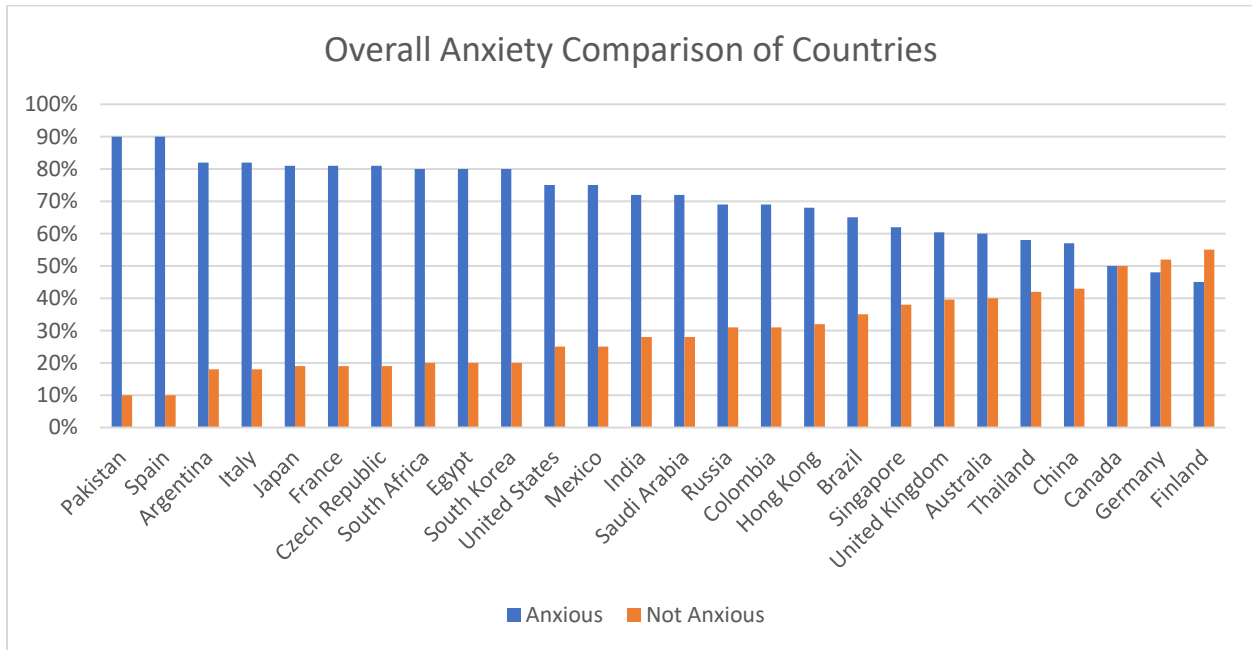
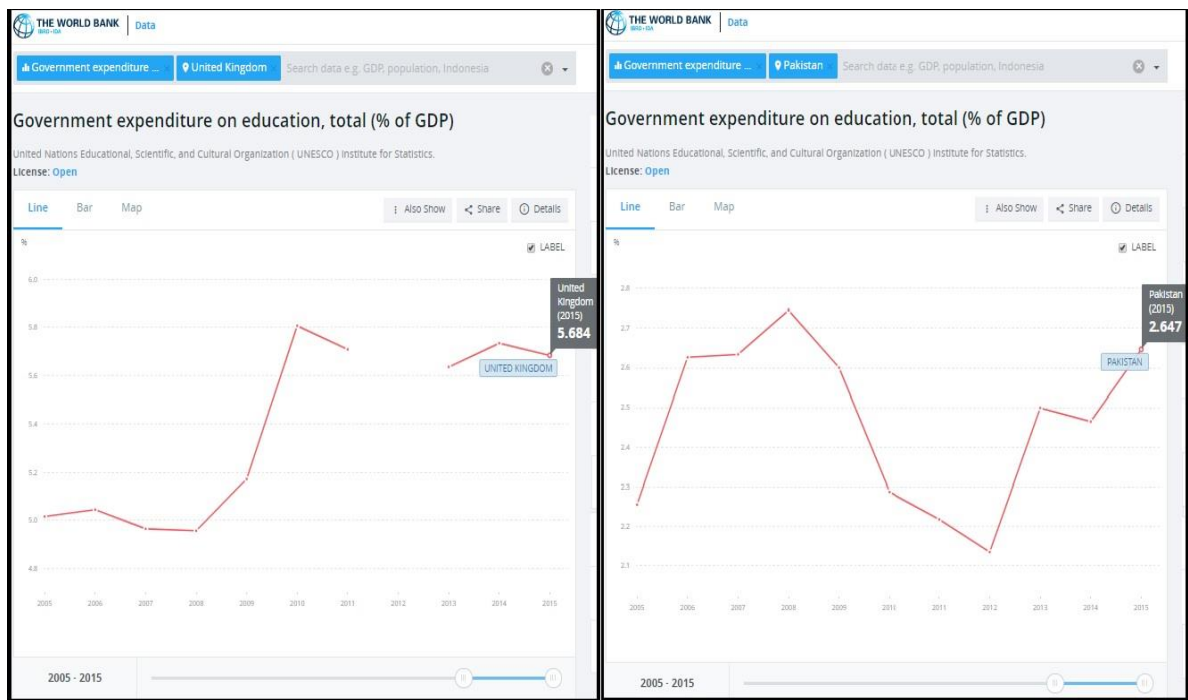


Figure 1. 6: Illustrative own interpretation of Global Report (2013).

For the ease of understanding, Anxiety Index Study Global Report (2013) are re-presented in bar diagram comparing the percentages of anxious and non-anxious individuals in Pakistan and the UK. It is shown that 9 out of 10 Pakistanis are anxious, while in the UK the percentage is lower (60%). It is believed that Canada sits at the intersection (50% anxious and 50% non-anxious) because of higher levels of social assistance, a protective environment and lower competition for jobs (Burns, 2020; US News, 2020). The above graph and bar diagram show the comparison of

Pakistan with some of the other countries. On the scale of “anxious to non-anxious”, Pakistan is the *least contented country* on the scale, while the UK appears to have a much higher number of happy workers, reflecting lower anxiety, depression, and stress. However, there is no direct report to compare and conclude the relationship between the two countries’ occupational stress and commitment. In other words, there is no conclusive comparative study which offers an analysis. Moreover, the study above was a general study rather than sector-specific leaving a need for more focused research on occupational stress and organisational commitment in the higher education sectors of the UK and Pakistan.



United Kingdom

Pakistan

Figure 1. 7: “Government expenditure on the Education in the UK and Pakistan” (The World Bank, 2015)

The variations within the two countries are presented below:

Table 1. 1: Comparison of components in contrasting economies

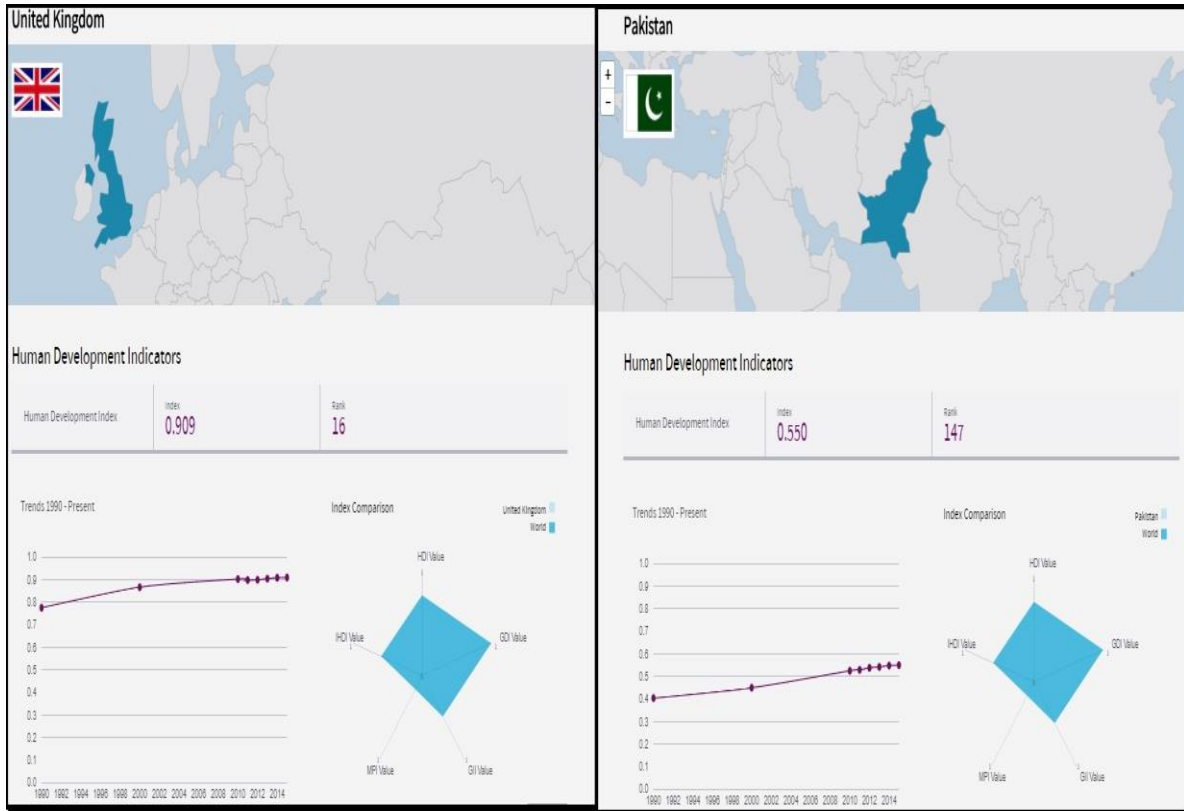
Components	Pakistan	United Kingdom
Human Development Index	0.59	0.90

World Ranking	147 th	16 th
Education	8.1	16.3
Budget spending on Education	2.6%	5.68%
Education Sector contribution to GDP	3.6%	2.8%
Gender Inequality in the Education sector	0.38	0.83
Employment Vulnerability	51.0	59.3

Currently, the government of Pakistan is spending 2.64% of its budget on the education sector (The World Bank Report, 2015; Higher Education Workforce Survey, 2015), while its universities are estimated to contribute 3.6% to GDP (Ministry of Education, 2015). Conversely, UK government spending on the education sector is 5.68% (TWB Report, 2015), while its universities are estimated to contribute 2.8% to GDP (HEWS, 2015; UKPS, 2016). Interestingly, the government of Pakistan spends less in comparison to the UK government, but the Pakistani education sector's contribution is higher than is the UK's education sector.

Chaudhry (2012) finds a negative relationship between stress and job satisfaction within universities in Pakistan. Danish *et al.*, (2015) argued later that organisational commitment and job satisfaction results from organisational climate and Khan *et al.*, (2015) reported that stress affects the organisational commitment of employees in Pakistan. Nevertheless, these studies focused on teaching faculty, while the present study attempts to examine both academics and administrators using a multi-dimensional approach to these variables of interest. Jackson and Rothmann (2006) found a surprising positive relationship between job stress and organisational commitment in the UK education sector, while Khatibi *et al.*, (2009) identified a negative relationship between stress and organisational commitment in educational institutions. We see a need to investigate these relationships more depth, explicitly in the education sectors of the UK and Pakistan.

The UK and Pakistan were chosen based on the researcher's axiological view. His priorities are reinforced by the huge difference in the Human Development Index (HDI) of these two countries.



United Kingdom

Pakistan

Figure 1. 8: “HDI of the UK and Pakistan” (Human Development Report, 2016)

The above figure gives an HDI for the UK of 0.900 whereas Pakistan's HDI is 0.550. It indicates that the UK’s HDI is *double* that of Pakistan’s. Detailed analysis revealed that the UK’s HDI is more stable than Pakistan’s which has improved at a constant rate during the last half decade. The UK is ranked 16th while Pakistan is lying at 147th, which reflects the enormous differences between the two economies.

United Kingdom		Pakistan	
+ Health	Life expectancy at birth (years) 80.8	+ Health	Life expectancy at birth (years) 66.4
+ Education	Expected years of schooling (years) 16.3	+ Education	Expected years of schooling (years) 8.1
+ Income/Composition of Resources	Gross national Income (GNI) per capita (2011 PPP) 37,931	+ Income/Composition of Resources	Gross national Income (GNI) per capita (2011 PPP) 5,031
+ Inequality	Inequality-adjusted HDI (HDI) 0.836	+ Inequality	Inequality-adjusted HDI (HDI) 0.380
+ Gender	Gender Development Index (GDI) 0.964	+ Gender	Gender Development Index (GDI) 0.741
+ Poverty	Multidimensional Poverty Index (MPI) n.a.	+ Poverty	Multidimensional Poverty Index (MPI) 0.237
+ Work, employment and vulnerability	Employment to population ratio (% ages 15 and older) 59.3	+ Work, employment and vulnerability	Employment to population ratio (% ages 15 and older) 51.0
+ Human Security	Homicide rate (per 100,000 people) 0.9	+ Human Security	Homicide rate (per 100,000 people) 7.8
+ Trade and Financial Flows	Exports and Imports (% of GDP) 56.8	+ Trade and Financial Flows	Exports and Imports (% of GDP) 28.1
+ Mobility and Communication	Internet users (% of population) 92.0	+ Mobility and Communication	Internet users (% of population) 18.0
+ Environmental sustainability	Carbon dioxide emissions per capita (tonnes) 7.1	+ Environmental sustainability	Carbon dioxide emissions per capita (tonnes) 0.8
+ Demography	Population, total (millions) 64.7	+ Demography	Population, total (millions) 188.9

United Kingdom

Pakistan

Figure 1. 9: “Comparison of the different attributes of the UK and Pakistan” (HDI Report, 2016)

The above-mentioned comparative figure shows different attributes of the two economies. However, in the education sector, there is a massive difference, as the UK has a score of 16.3 while Pakistan has a score of approximately half (8.1). Interestingly, *inequality is higher* in the UK at 0.836, while Pakistan scored comparatively lower (0.38). It is reasonable to infer that occupational stress and the level of commitment will vary in these different economies. Additionally, work, employment and vulnerability are higher in the UK in contrast to Pakistan (59.3 to 51.0). This is not too significant a difference, but it could affect the performance of the workforces. This study

attempts to fill this identified gap. Additionally, despite Pakistan having a lower HDI than the UK, both countries are experiencing higher stress levels and challenges regarding retaining employees in the education sector (Metcalf *et al.*, 2005; CIPD Annual Report, 2007; Haq, 2013; HEWS, 2015, Akhtar *et al.*, 2015; Nasir and Mahmood, 2016; HCEC, 2017).

The researcher has extended the parameters by considering the education sectors of the UK and Pakistan, owing to its reputation of being one of the few sectors to contribute significantly towards GDP during the post global economic recession of 2008 (TWB Report, 2015; HEFCE, 2015). Furthermore, the trends, operations, and structure of higher education in both countries are similar (Ramzan, 2015), yet Saleem and Qamar (2017) found that the ratio of employee turnover and low job satisfaction is significantly higher amongst university in Pakistan. Henley *et al.*, (2016) reported that 15% of UK university staff might quit their jobs owing to Brexit. Indeed Savage (2017) revealed that a 25% of UK teaching staff had left their jobs after 2011 and, in the last five years, the tally has increased to 31%. The trends, variations and challenges in both countries' education sectors are similar to a large extent and detailed analysis is needed to tease-out variations in occupational stress and its effect on the organisational commitment of both academic and non-academic (administrative) staff. This thesis critically examines the relationship between research variables in the education sector of the UK and Pakistan by exploring variations through gender and faculty type.

Researchers usually opt for comparative analysis as it tends to be more informative and offers the prospect of generalizability greater than with single case analysis (Goodrick, 2014; Haque and Aston, 2016; Gustafsson, 2017; Haque, Aston, and Kozlovski, 2018). In other words, rather than limiting the study to the 'region-specific context', the researcher attempts to gain superior knowledge through a 'cross-cultural context' (Haque *et al.*, 2018). Furthermore, although there are visible differences in various aspects including, anxiety, HDI and cultural context, there are, however, some similar trends and variations in these two distinctive economies (Ramzan, 2015). Comparative analyses of the UK and Pakistan exist, but address the IT and Logistics sectors (Haque and Aston, 2016; Haque *et al.*, 2016), or government expenditure on education (Ramzan, 2015). There is no comparative study of the relationship between varying occupational stressors and the organisational commitment of academic and non-academic staff in Pakistan and the UK. Hence this study.

1.3 Research Problem

1.3.1 The Research Agenda

Reedy (2009) defines a research agenda as focus on specific ideas and issues within the broader research field's subset. Hoque *et al.*, (2017) argued that a research agenda is a strategic plan, focusing on certain attributes and associated issues for a time duration. Our specific focus is the relationship between occupational stress and organisational commitment within the universities of the UK and Pakistan. The primary focus is on how variations in occupational stress act as antecedents for organisational commitment, namely: Affective Commitment (AC), Normative Commitment (NC) and Continuance Commitment (CC) among teaching and non-teaching, public university staff in the contrasting economies. We are interested in the causes and consequences of stress, the role of social support programmes, the effectiveness of the professional occupational therapy, perceived job satisfaction and Hofstede's cultural dimensions as well as a specific cultural theory known as Grid-Group Cultural Theory. The researcher has narrowed the research to personal stressors, organisational stressors and environmental stressors. Here the consequences of stress are treated in terms of physical, cognitive, behavioural and emotional symptoms.

Previous researchers have concentrated on personal stressors, organisational stressors and only three types of consequences (physical, behavioural and emotional), while this study promises greater depth. The focus of this project is multi-dimensional, considering gender, faculty (teaching and non-teaching) and contrasting economies (emerging and developed).

This study revolves around occupational stressors affecting the organisational commitment of teaching and administrative staff in both the UK and Pakistan. Hence, all of the variables in question (indirect and direct) require consideration.

1.3.2 Background of research problem

There is mixed evidence from previous empirical studies regarding the nature of the relationship between our chosen variables. Several studies in both the UK and Pakistan have confirmed a relationship between occupational stress and organisational commitment. Furthermore, the role of an occupational therapist is more established in the West than in the East and there is limited evidence as to the effectiveness of the occupational therapy in HE. Limited evidence is available

regarding the role of social support programmes within the education sector, in reducing occupational stress and increasing organisational commitment.

The DRIVE model (see below) has been developed but it is yet to be used to measure variations of a relationship in a complex environment. The DRIVE model is the simplest model for explaining stress in complex environment (Haque and Aston, 2016). This raise a question of how simple or complex a model or theory needs to be for explaining perspective. In this regard, Ockham's razor could be useful. Schaffer (2015) explained Ockham's razor as, "a problem-solving principle that indicates, entities should not be multiplied without necessity". In other words, if a simple and a complex eplanation match the evidence equally well, then choose the simple one (Baker, 2010; Hoffman, Minkin and Carpenter, 1997). Occam's razor is a rule-of-thumb (heuristic) which states that when same predictions are made by competing hypotheses then the explanation containg the fewest assumptions should be selected (Hoffman et al, 1997). The principle does not apply to the selection between hypotheses that are making different predictions (Sober, 2015). See also Hugh (2003). "The preference for simplicity in the scientific method is based on the falsifiability criterion" (Hoffman et al., 1997; Hugh, 2003; Sober, 2015). For every single explanation of a phenomenon that is accepted, there might be an exceptionally large, possibly incomprehensible number of complex alternatives (Schaffer, 2015; Sober, 2015). "Since one can always burden failing explanations with ad hoc hypotheses to prevent them from being falsified, simpler theories are preferable to more complex ones because they are more testable" (Sober, 2015). In the light of Ockham's razor explanation, we prefer the simplest possible for a in complex environment.

We wish to understand which is the most dominant and which is the least active cause of stress for contrasting genders in teaching and administrative staff in distinctive economies. Sacky and Sanda (2008), Sacky and Sanda (2011) and Haque and Oino (2017) investigated the role of social support in reducing stress, while Kumasey, Delle and Ofei (2014), Haque and Aston (2016) and Haque *et al.*, (2016) examined links between occupational stress and organisational commitment. At present, however, there is no single combined study that has considered all the aspects within one construct. Moreover, the effects of occupational therapy on organisational commitment have not been placed within the cosnstruct we have in mind.

1.3.3 Problem statement

Here, then, is our problem statement:

"What is the effect of varying occupational stressors on the organisational commitment of teaching and administrative staff working in public universities in the UK and Pakistan? Additionally, are professional occupational therapists and social support programme inside the universities effective in reducing stress and/or enhancing organisational commitment? Do the causes and consequences of stress vary for individuals considering their distinctive gender, faculty and economies of interest?"

To clarify this problem statement further, the researcher has sub-divided it:

- *In what capacity do distinctive stressors affect the antecedents of the organisational commitment of teaching and administrative university staff in the UK and Pakistan?*
- *What are the different types of consequences resulting from the occupational stress of teaching and administrative university staff in the UK and Pakistan and how are these interlinked with the antecedents of organisational commitment?*
- *How effective are the existing social support programme in reducing occupational stress and/or enhancing the organisational commitment of teaching and administrative university staff in the UK and Pakistan?*
- *How effective is the role of the professional occupational therapist in the education sector in reducing the occupational stress and/or enhancing the organisational commitment of teaching and administrative university staff?*
- *What is the nature of the relationship between the occupational stress and organisational commitment of teaching and administrative university staff in the UK and Pakistan?*

1.4 Research Questions

Our primary research question remains ***"Does a relationship exist between the occupational stress and organisational commitment of the teaching and administrative, public university staff in the UK and Pakistan?"*** The sub-questions are as follows:

- *How do the varying stressors, namely: personal, organisational and environmental stressors, affect the affective, normative and continuance commitment of teaching and administrative university staff in the UK and Pakistan?*

- *How do the physical, behavioural, cognitive and emotional consequences concerning the distinctive antecedent of organisational commitment, vary between the teaching and administrative public university staff in the UK and Pakistan?*
- *Are social support programmes effective in sustaining human capital within public universities in the UK and Pakistan?*
- *To what extent are the visibility and effectiveness of the professional occupational therapist's roles evident in public universities in the UK and Pakistan?*

1.5 Aim

Based on the above problem statement and research questions, the researcher has developed the aim of this project.

This study aims “to investigate the role of social support programme and the effectiveness of the occupational therapist in dealing with the varying occupational stress and sustenance of organisational commitment of the teaching and non-teaching university staff of contrasting economies.”

1.6 Objectives

In support of the aim mentioned, here are the research objectives:

- To examine the varying occupational stressors affecting the organisational commitment of males and females working at teaching and non-teaching faculties within the public universities of the UK and Pakistan.
- To examine the varying consequences of occupational stress among males and females working at teaching and non-teaching faculties within public universities of the UK and Pakistan.
- To evaluate the potential impact of the effectiveness of the occupational therapist, perceived job stress, personal strain, personal resources and social support on the organisational commitment of public universities' personnel in the UK and Pakistan.

1.7 Significance of the project

Stress and commitment are, frankly, important for both theoretical and practical reasons. Higher education is fast-paced, and it follows that we should know if its stresses affect the commitment of professionals in the education sector. It makes sense to ask whether the culture of the industry vary internationally and whether beneficial practices in one part of the world could be transformed to another part. Does a culture have an effect on stress and commitment, bearing in mind the very different levels of anxiety between the two countries presented above? This thesis is an attempt to offer understanding and strategic solutions for high stress and low commitment.

A large literature is available for occupational stress and organisational commitment (Haque and Aston, 2016; Kumasey *et al.*, 2014; Sacky and Sanda, 2011). However, it tends not to be comparative in the sense we seek concerning our variables of interest. Hence, this study is a comparative analysis of the higher education sectors of two contrasting economies, to include the effects of social support programmes on our variables (stress, commitment, gender, university staff distinguished by occupational class) where there has been no such study.

Table 1. 2: A Pre-View of Grid-Group Cultural Theory; Some Contrasting Dispositions

	Gender	Occupational Class	
United Kingdom	Male	Academics	Members enjoying competitive game playing
		Administrator	Worried persons in an insecure labour market trying to survive another month in temporary hourly paid jobs
	Female	Academics	Game-players out to win
		Administrator	Devotees pursuing their vocation or calling
Pakistan	Male	Academics	Members of a collective movement aiming to change the world for the benefit of everybody, such as education for all
		Administrator	Surface actors playing a role while pretending that they care
	Female	Academics	Colleagues competing fiercely for rapid promotion
		Administrator	Workers doing a job

The occupational stress could mean an additional motivation for the male academics in the UK and Pakistan as they may enjoy either being members of team or individualistic competitive game players. Interestingly, in Pakistan, males prefer to work collectively for a change, while academic staff in both countries have higher commitment than administrative staff. On the other hand, males in administrative roles at the UK and Pakistan may find occupational stress a disturbance to operations because they are working not for an elevated ideal, but to survive. What we are suggesting is that the nature of commitment may vary with occupation and across different rationalities. Employees may have commitments which vary in nature as well as intensity.

It could be argued that male academics seek to prove their worth in a competitive academic job market. Females working in academics in the UK are also reported to be committed to proving their worth and make the most from the opportunities. Similarly, females working in academics in Pakistan also showed higher commitment to demonstrate they remain competitive. Nevertheless, it could be argued that the higher the competition, the higher the stress, at least for those who do not relish competition. Conversely, as we will see, male administrators reported both lower commitment and lower stress in both countries whereas female administrators in the UK reported devoting themselves to their vocation and in Pakistan, it appeared that routine workers were more likely to be 'just doing a job'. Thus, this thesis found that both occupational class and 'cultural' rationalities may have an effect on occupational stress and organisational commitment.

It will be reported that what occupational stress and organisational commitment mean to each category of employee may be very different. It takes too much of time and effort for the academic staff to strengthen their position in the higher education industry in comparison to administrative staff. Previously, studies have not explored this dimension. G-GCT helps to explain why some have low risk appetite (a pressing need to manage what they experience as high stress) while others have high risk appetite and remain resilient under stress.

Occupational therapy is well-established in developed economies (Stoica and Buicu, 2010). In emerging economies, however, it is sparse. Moreover, there are differing cultural and social norms which may lead to stress being handled in different ways, and in particular without reliance on that stranger: the occupational therapist.

Sustaining human capital has been a developing concern among organisations and students of organisations and this project seeks out various ‘stressors’ affecting organisational commitment adversely. Although occupational therapy has also developed in the West, the effectiveness of this role has not been studied in depth in Pakistan, so we also wish to evaluate its effectiveness, particularly in higher education.

This study distinguishes different stressors and their different impacts across two occupational categories and contrasting economies, explored through self-reporting by a large survey and interview sample of HE employees. Previous studies mostly adopted a one-dimensional approach whereas we take a more discerning multidimensional approach. We seek to establish a standardised approach out of which we trust global organisational standards for sustainable organisational commitment and stress reduction will emerge. The DRIVE model of stress proposed by Mark and Smith (2008) has yet to be used in complex organisations and this project is unique in testing the DRIVE model of stress in the HE complex education sectors of two countries that differ historically, socially, culturally and institutionally by varying degrees.

1.8 Overview of undertaken methodology

We prefer comparative analysis (Bennett, 2004; Haque and Aston, 2016; Bartlett and Vavrus, 2017; Haque, Aston, and Kozlovski, 2018) for its potential to yield theoretical developments and generalisations. The researcher has used a “hypothetico-inductive-deductive” (abductive) approach for literature development and a “hypothetico-deductive-inductive” model for case analysis, proposed by Sekaran and Bougie (2012) (for further details, See Appendix F).

Cross-sectional research design is used to investigate variables of interest through forming sub-groups to compare gender, faculty and type of economy (Benett, 2004; Sekaran and Bougie, 2012; Haque and Aston, 2016; Haque *et al.*, 2016; Zehra *et al.*, 2017; Bartlett and Vavrus, 2017; Haque *et al.*, 2018) (for further details See Appendix F).

We apply the following criteria of inclusion and exclusion. The researcher included only institutions operating in the UK and Pakistan, in particular public universities. Private universities were excluded from this study, because so few exist in the UK, unbalancing our sampling processes had they been included. We include only professional administrative and teaching personnel. We set a lower age limit of eighteen years of age. Some professionals above sixty-five

years of age work on a contractual basis and we opted to include them. We included only literature published in the previous two and a half decades. This is to ensure that the research is in keeping with present research concerns.

We developed a self-administered, semi-structured questionnaire using matrix-based ordinal LIKERT scales. We used forced choices eliminating ‘neutral’ responses. Our 6-point scale ran 1 = Strongly Disagree, 2 = Disagree, 3 = Moderately Disagree, 4 = Moderately Agree, 5 = Agree, and 6 = Strongly Agree. We took the methodological decision that excluding Neutral responses increases sensitivity to causal relationships between dependent and independent variables. The semi-structured interviews were included to add depth and provide a check on the quantitative results. (See Appendix A and Appendix D.) Using an on-line, GOOGLEDOC survey form, the survey was circulated through gatekeepers in the UK and, after reaching a substantial target audience, the same questionnaire was circulated in Pakistan, by means of similar gatekeepers. We combined probability and non-probability sampling techniques, adapting Haque *et al.*, (2018) strategy for bias reduction by stratifying respondents into major groups, to ensure their proportionate representation. The marginal error formula was applied to determine the minimum number of respondents required, following Rumsey (2002), LeBlanc (2004), and Jamal (2013). The formula showed the minimum number of respondents required as 384.14; therefore, over 384 respondents are calculated to be sufficient to draw a logical conclusion which we exceeded (n=408), 204 respondents in each country with equal representation in terms of gender and occupational categories. AMOS and SPSS 23.0 were used for statistical analysis.

At the second stage, interviews were carried out both face-to-face and by SKYPE, again with teaching and non-teaching staff, first in Pakistan then the UK. We determined the interview sample size by finding the ‘saturation-point’: which proved to be forty-nine, at which responses were becoming highly repetitive in Pakistan and to balance this sample forty-nine interviews were held in the UK. A thematic analysis was applied to the interview evidence.

1.9 Definition of Key terms

For the purpose of clarity and standardisation, all key concepts are defined below:

Stress: “Stress is your body’s reaction to a trigger and is generally a short-term experience. Stress can be positive or negative. When stress kicks in and helps you pull off that deadline you thought

was a lost cause, it's positive. When stress results in insomnia, poor concentration, and impaired ability to do the things you normally do, it's negative" (Hurley, 2019). It could be said that it is a response in any situation to what an individual might perceived as threat or something new or perhaps wven exciting because it is different.

Anxiety: "It is a sustained mental health disorder that can be triggered by stress" (Hurley, 2019). It doesn't go away or diminish too far once the threat causing it is mediated, but hangs around to re-emerge again. It could cause damage to occupational, social and other functionalities (Hurley, 2019).

Thus, in this thesis, stress and anxiety are considered as two different attributes. Anxiety is one of the disorder that is linked with stress. Perhaps, it could be said that anxiety is the resultant of stress but stress is not the resultant of anxiety because stress could be good while anxiety is disorder resulting from disorder. In fact, anxiety, depression, strokes, heart attack, obesity, hypertension, gastriontestinal distress are some of the physical and emotional disorders interlinked to stress (Hurley, 2019).

Organisational commitment (OC): Buchanan (1974) treats it as a "psychological pact" between the workers and their respective organisations.

Individuals' commitment towards the organisation by reflecting voluntary efforts to accept the organisational norms and continue with the same organisation (Porter et al. 1974). Based on this definition, Mowday et al. (1979) termed affective, normative and continuance commitment as the three antecedents of organisational commitment.

Affective commitment (AC): "Affective commitment is when employees offer voluntary efforts for the attainment of organisational goals because they treat the organisational goals and targets as their own goals and targets" (Mowday *et al.*, 1979; cited Haque and Yamoah, 2014).

Normative commitment (NC): "The employees report normative commitment by showing their consent and acceptance of organisational values and, thus, reflecting that the values and beliefs of those organisations are taken as a norm by the employees" (Mowday *et al.*, 1979; cited Haque and Yamoah, 2014).

Continuance commitment (CC): “Continuance commitment is demonstrated by the employee through their willingness to be affiliated and associated with the same organisation, as this reflects that a person wants to continue working for the same organisation” (Mowday *et al.*, 1979; cited Haque and Yamoah, 2014).

Job satisfaction (JS): Robin and Judge (2009) by explaining it as “an additional variable, inside the organisational setting, used for the assessment of individuals’ feelings arising from work and workplace environment” (p. 65).

Ivancevich and Matteson (2002) considered it to be the individual's attitude and feelings resulting from the perfect match between their perception and real experience by him/her at work whereas Sempane *et al.*, (2002) sum up that with the job, the evaluation and perception of the employees based on their values, needs and expectations are driving their feelings, and if they are happy about work, then feelings will be regarded as job satisfaction. Hence, JS tends to escalate because of the employees’ positive perceptions and evaluations.

Social support: Sackey and Sanda (2011) define it as, “a support at the workplace from colleagues, peers and supervisors to make individuals feel part of the organisation”. On the other hand, Fairbrouther (2011) defined it as, “social support is the physical and emotional comfort given to us by our family, friends, co-workers and others. It is knowing that we are part of a community of people who love and care for us, and value and think well of us” (p. 7).

Organisational climate: “When employees in a particular work unit agree on their perceptions of the impact of their work environment, their shared perceptions can be aggregated to describe their organisational climate” (Jones and James, 1979; cited Glisson and James, 2002; p. 767). On the other hand, according to Isaken and Ekvall (2007), “it is a recruiting patterns of attitude, behaviour and feelings that characterize life in their organisation” (p. 2). Thus, it could be said that it is a shared beliefs’ set and attitudes in relation to the organisation, which is perceived by its members.

Environment: In general, elements, objects, things, systems or circumstances that surround a person is regarded as environment (Webster, 2019). The literal meaning of environment is surrounding (environs), which could be regarded as a field or space when networks of interactions, interconnections and relationships occur between entities. Considering, business environment in simple term would refer to the forces and factors affecting the ability of the organisation. Duncan

(1972) defined it as, “the totality of physical and social factors that are taken directly into consideration in the decision-making behaviour of individuals in the organisation” (p. 313). The internal elements of the organisation form internal environment while external environment consist of two types, namely, external microenvironment (small external forces) and external macro environment (large societal forces).

Environmental stressors: According to Stranks (2005), environmental stressors are all those factors that are external forces affecting the organisation and its employees. Stranks categorized environmental stressors as political uncertainties, economic uncertainties, and technological uncertainties that causes stress. After briefly defining environment, this study categorized the environmental factors as macro external forces affecting the operations and abilities of the organisation and its workers.

Culture: According to Herskovits (1948), “Culture is the man-made part of the environment” (p. 17) while Mead (1953) defines culture as, “the total shared, learned behavior of a society or a subgroup” (p. 22). Richardson and Boyd (2005) defined culture by stating that the behaviour of the individual being affected by the capable information acquired from other individuals by means of imitation, teaching and other pattern of social transmission. it could be concluded that common features shared by social group inhabitants. However it is important to note that Grid-Group Cultural Theory departs very strongly from this view of culture (below) by defining it in terms of four *competing but equally rational ‘thought styles’ which members of any community will not be able to agree on*. In this sense culture *is not* what stays the same, but which changes perpetually or stochastically.

Organisational culture: Richard Perrin said, “Organizational culture is the sum of values and rituals which serve as ‘glue’ to integrate the members of the organization” (cited Watkin, 2013). Organisational culture reflects certain shared views and the story of people within the organisation because they together form the way things happen. It also reflects what people inside the organisation value becomes the part of way things take place inside. It is often a social control system (Watkin, 2013). Certain norms being upheld while social sanctions are imposed on all to stay within those lines, indicating that it is the immune system of the organisation (Watkins, 2013). However, note that in Grid-Group Cultural Theory (G-GCT) it is *disagreements* which bind us together.

Personal stressors: Conditions, attributes or events that occur in the life of people that could impact the health and wellbeing of them (ABS Gov, 2010). On the other hand, Stranks (2005) argued that these are personal attributes such as, family problem, personality clashes, and family problem which causes stress among the working individuals.

Organisational stressors: All those events, conditions, policies and features that takes place in the organisation that might causes stress among the employees, such as, organisational structure, role demand, task demand, life-cycle of the organisation, interpersonal relationship, and organisational leadership (Stranks, 2005; Haque and Aston, 2016). It reflects that all such elements interlinked with the organisation or events occurring at workplace that might affect the health or wellbeing at workplace are considered as organisational stressors (Haque et al., 2018).

Work employment and vulnerability: A contract between two parties namely, worker and employer stating particular job description and specification to be carried by worker against salary or wages is work employment (Daken and Armstrong, 1989). One party is employee while the other might be an employer in the form of organisation, corporation, NGO, co-operative or any other entity (Daken and Armstrong, 1989). On the other hand, vulnerability is an increased risk, which are yet not materialised because to larger extent it is not directly observable (Greenan and Seghir, 2017).

Human Development Index (HDI): According to UNDP (2018), “the Human Development Index (HDI) is an index that measures key dimensions of human development. The three key dimensions include a long and healthy life, access to education, and a decent standard of living” (cited Roser, 2019). In this thesis, HDI is used as a criterion to compare the different properties of developed and developing country.

Personal resources: Personal resources are also regarded as psychological capital defining within-person capacities of hope, resilience, optimism and self-efficacy (McCann, 2011). On the other hand, plethora of research considered personal resources as “personal mastery beliefs” that reflects the tendency of controlling ill outcomes through using personal features such as self-efficacy and optimism (Bobak et al. 1998; Seeman and Lewis, 1997; Bulatao and Anderson, 2004). Personal resources are effective to reduce risk behaviour and health disadvantages (Bulatao and Anderson,

2004). In this thesis, personal resources are considered as the features creating the ability within the individual to deal with stressors at workplace.

Personal strain: Farber (1983) argued that it is not always stress that exhaust individuals, but strain also is vital component in the organisational setting (Zamir and Hina, 2005). The pressure exerted on the individuals by themselves to be more competitive at work is regarded as personal strain (Robert, 2015). In this thesis, personal strain are chain of events and personal set milestones to be more competitive at workplace exerting pressure on the employees.

Perceived job stress: It is the feeling, perception or thoughts that a person has about the job creating a stress in a given time period (Philips, 2013). In other words, the feeling or perception about work or task at office has or will create a certain amount of stress is regarded as perceived job stress.

Occupational therapists: They are professionals with university-education while has passed a licensing exam to practice (WFOT, 2017). They are someone who “helps people across their lifespan participate in the things they want and need to do through the therapeutic use of everyday activities” (occupations). Common occupational therapy interventions include helping children with disabilities to participate fully in school and social situations, injury rehabilitation, and providing supports for older adults experiencing physical and cognitive changes (AOTA, 2017).

1.9 Overview and Structure of the project

The thesis structure is as follows:

1.9.1 Literature Review - This chapter contains theories and models about stress and organisational commitment. It offers a critical review of the key variables of interest including the causes and consequences of stress, perceived job satisfaction, Hofstede’s cultural dimensions and the role of the occupational therapist. The chapter also discusses gaps in the literature and develop hypotheses with concluding thoughts.

1.9.2 Conceptual Framework - This chapter presents the comprehensive conceptual framework developed from the literature review, pinpointing variables of interest, independent and dependent. The case is made for comparative research.

1.9.3 Research Methodology – This chapter discusses our methodology, with justifications. We distinguish ‘research’ and ‘methodology’. In the first section we introduce the research paradigm

(ontology, epistemology, and methodology), the research philosophy, the research type and our axiological commitments. The second section, ‘methodology’, covers research design, research approach, research process, research instruments, sample size and sampling techniques. We included a pilot study, ways of maximising reliability, validity and of minimising ethical transgressions.

1.9.4 Findings, Analysis, and Discussions – Here are the primary results. The statistical test of Cronbach’s alpha, Fitness of the data, EFA, and equal and normal distribution (Q-Q) plots are included. The second section contains the quantitative analysis including structural equation modelling through a partially recursive model, a Chi-Square test, and multiple regression for measuring the statistical significance and nature of the relationship between research variables. Our hypotheses are tested and discussed in the light of the literature, followed by thematic analysis of interview responses. We identify how our findings confirm or contradict previous studies.

1.9.5 Conclusion, Contribution, and Implications – We conclude with a discussion of our findings in relation to our research objectives, followed by what we believe to be our practical and theoretical contributions, including practical recommendations for future researchers and universities.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The “literature review is an important part of the research process that starts with the identification of the problem and carries on until the conclusion is drawn” (Kumar, 2009, p. 07). This chapter serves as the foundation for a theoretical framework and critical evaluation of earlier studies. The choice of the variables of interest is made as is the case for comparative research.

2.1 Stress

“Stress has no single definition because it is a term often not clearly understood by all” (Stranks, 2005). It may even be experienced differently by different individuals according to their understandings and ‘thought styles’ (see below). It might be pleasant to some while unpleasant to others, depending upon each individual’s thinking and ability to comprehend (ibid). Seyle (1936) defined stress as a “common response to attack”, while Stranks (2005) argued that "it is an influencer to disturb the natural equilibrium of the human body". Now that different definitions have been noted we need to dig more deeply into the nature (ontology) of stress.

Scholars tend to agree that it is intangible, as it can only be experienced rather than touched (Stranks, 2005; Ekundayo, 2014; Kumasey, *et al.*, 2014), although it has physiological features that can be measured. Stress occurs in the professional life of individuals (Smith *et al.*, 2000; Chang and Lu, 2007; Kumasey *et al.*, 2014).

Schabracq and Cooper (2000) and Mark and Smith (2008) found that stress variation can be explained by the processes and procedures of organisations, technological advancement, globalization and economic fluctuations as the stakes change. These interact to cause variations in organisational efficiency, including adverse variations of special interest here.

Mark and Smith (2008) argued that the changing nature of organisations are creating “stressful” work environments. Many researchers agree that organisational change creates stress for employees, including intense work pressure, job role conflicts, harassment, personality clashes, insufficient holiday entitlement (or none at all!), a lack of direction or no direction at all, poor promotion prospects, a work-life imbalance, excessive working hours, isolation, job insecurity and improper feedback (Griffiths, 1998; Mark and Smith, 2011; Faizan and Zehra, 2016).

Yet there is a school of thought which argues that stress is not always harmful but that a certain intensity, it can be constructive, beneficial and positive, enhancing employees' performance and commitment, though depending upon the situation (Lazarus, 1966; Nelson and Simmons, 2004; Ekundayo, 2014; Haque and Aston, 2016).

2.2 Types of Stress

It remains clear enough that certain types and intensities of stress is destructive for some individuals, causing organisational inefficiency, and for others, a motivator which increases organisational efficiency. Thus, it is essential to explore the various types of stress. There are four types of stress commonly identified in employees: eustress, distress, hyper-stress and hypo-stress (Kundaragi and Kadakol, 2015).

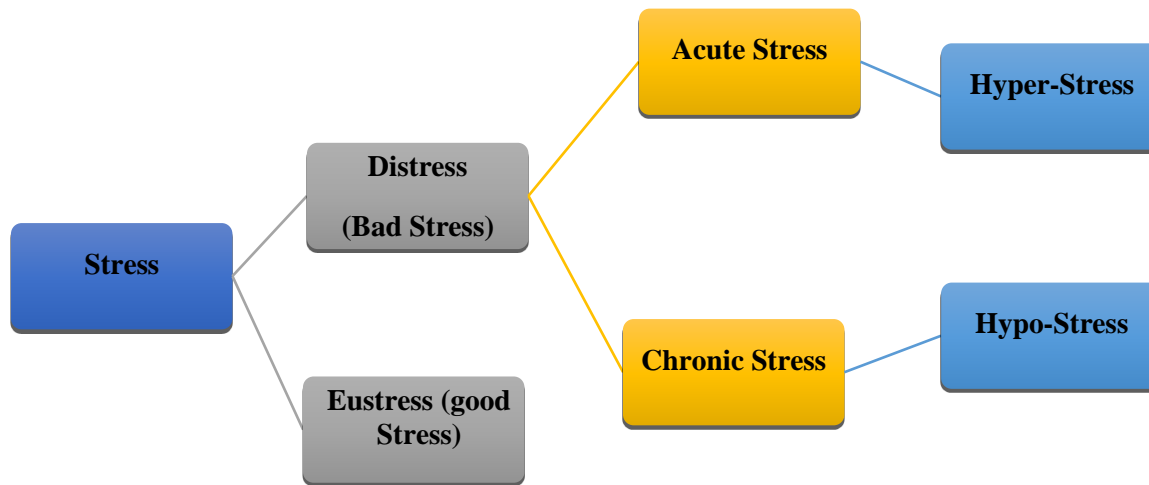


Figure 2. 1: Adapted from Kundaragi and Kadakol (2015)

2.2.1 Eustress

Seyle (1936) coined the word “eustress” for optimal stress, Lazarus (1966) confirming that stress could be constructive for employees. Nelson and Simmons (2004) also found that positive stress is beneficial for *both* employees and organisations. According to Kundaragi and Kadakol (2015), it is a type of stress that makes an individual feel better and demonstrating greater impacts. It activates by increasing individual's energy, enabling them to perform at their best. However, there is no conclusive evidence regarding when good stress turns into bad stress.

2.2.2 Distress

For Haque and Aston (2016), the opposite of eustress is distress. Kunderagi and Kadakol (2015) describe it as negative stress damaging performance and efficiency. Distress is common in the workplace and if continuous over a long period of time, it transforms into chronic stress (The Health Centre, 2006; Batty *et al.*, 2017) and constant worry (Kunderagi and Kadakol, 2015).

2.2.3 Hyper-Stress

Hyper-stress is a type of stress that is more than manageable for the individual (Kunderagi and Kadakol, 2015) as if pushing them towards their 'breaking point'. For Kunderagi and Kadakol (2015) an excessive workload contributes hyper-stress. On the other hand, Stranks (2005) argued that money is a prime cause of hyper-stress, affecting the performance of individuals both at home and in the workplace, eventually causing continuous strain. However, this type of stress is limited in its effects as employees can continue to work with it (THC, 2006). Hyper-stress is also regarded as a type of acute stress (CSHS, 2010).

2.2.4 Hypo-Stress

This is the opposite of hyper-stress, arising when there is boredom and fatigue (THC, 2006; Kunderagi and Kadakol, 2015). Interestingly, this stress makes an individual feel exhausted and results in creating de-motivation owing to performing a repetitive but unskilled task (THC, 2006; Kunderagi and Kadakol, 2015). Inspiration is lost. Interestingly, CSHS (2010) consider hypo-stress as chronic stress.

2.3 Level of Stress

Individuals experience stress differently (Ekundayo (2014) whether eustress (good stress) or distress (bad stress). Stress does not suddenly arise, but develops gradually, eventually reaching the point where individuals become aware of it, and produce symptoms including reduced functionality (ibid). It may be that stress may differ with gender and occupational group, which we feel warrant closer investigation. Meanwhile scholars have identified three stages of stress: an “*alarm stage* - (acute stress)” a “*resistance stage* - (prolonged stress)”, and an “*exhaustion stage*” (Levi, 1972; Oyetimein, 2009; Ekundayo, 2014).

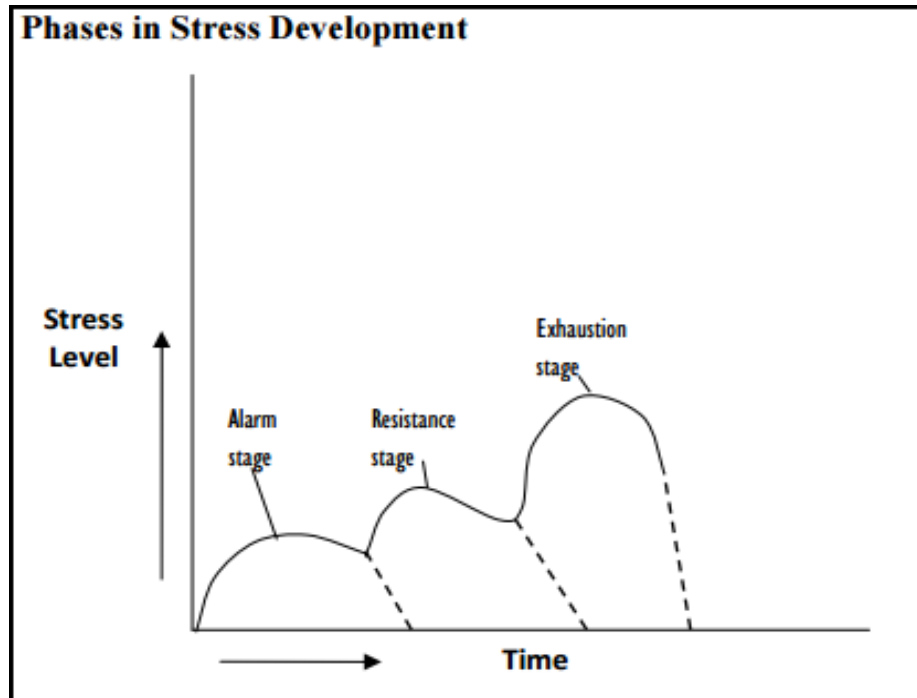


Figure 2. 2: ‘Phases in stress development’ (Oyetimein, 2009)

Interestingly, the exhaustion stage is also viewed as a result of the *chronic* stage; the alarm stage is *acute*, while resistance is *episodic* (THC, 2006). Ekundayo (2014) explains that at the “alarm stage”, the body produces adrenaline which is an adaptive response to stressful situations. The body’s organs experience minor changes, such as an increase in pulse rate, faster breathing, problem in digestion, and/or an increase in blood pressure (Ekundayo, 2014). Different types of medication are used to control these changes and restrict the impact of stress (Oyetimein, 2009). The consequences of acute stress may be neutralized or even reversed through medication (Oyetimein, 2009; Ekundayo, 2014).

Ekundayo (2014) explained that the resistance stage is the second stage where the body decides either to fight or take flight owing to the *experience* of stress. Therapy and meditation may assist in returning an individual to equilibrium (ibid). However, if there is a defense mechanism breakdown, it has been argued that a complete failure of resistance, will take an individual to the point of exhaustion, the final stage (Oyetimein, 2009; Ekundayo, 2014).

In other words, when elastic limits are exceeded, normal functionality is damaged (Oyetimein, 2009; Ekundayo, 2014). This form of argument is similar to the way engineers think about the point at which a structural member fails permanently under a stress loading. Chronic stress is

evident and result in severe nervousness and psychological or physical *breakdown* (Oyetimein, 2009). Ekundayo (2014) argued that if the exhaustion stage is continuous over a long period of time, there is the possibility of severe problems including: mental illness, depression, diabetes, ulcer and cardiovascular problems.

2.4 Causes and Effects of Occupational Stress at the Workplace

“Individuals experience different types of stress at a workplace and it causes different types of issues for employees” (Stranks, 2005; p. 12). Moreover, individuals are affected differently by the various types of stressors (Stranks, 2005; Ekundayo, 2014; Haque and Aston, 2016). We favour Stranks’ (2005) which features individual, organisational and environmental stressors and their effects on commitment.

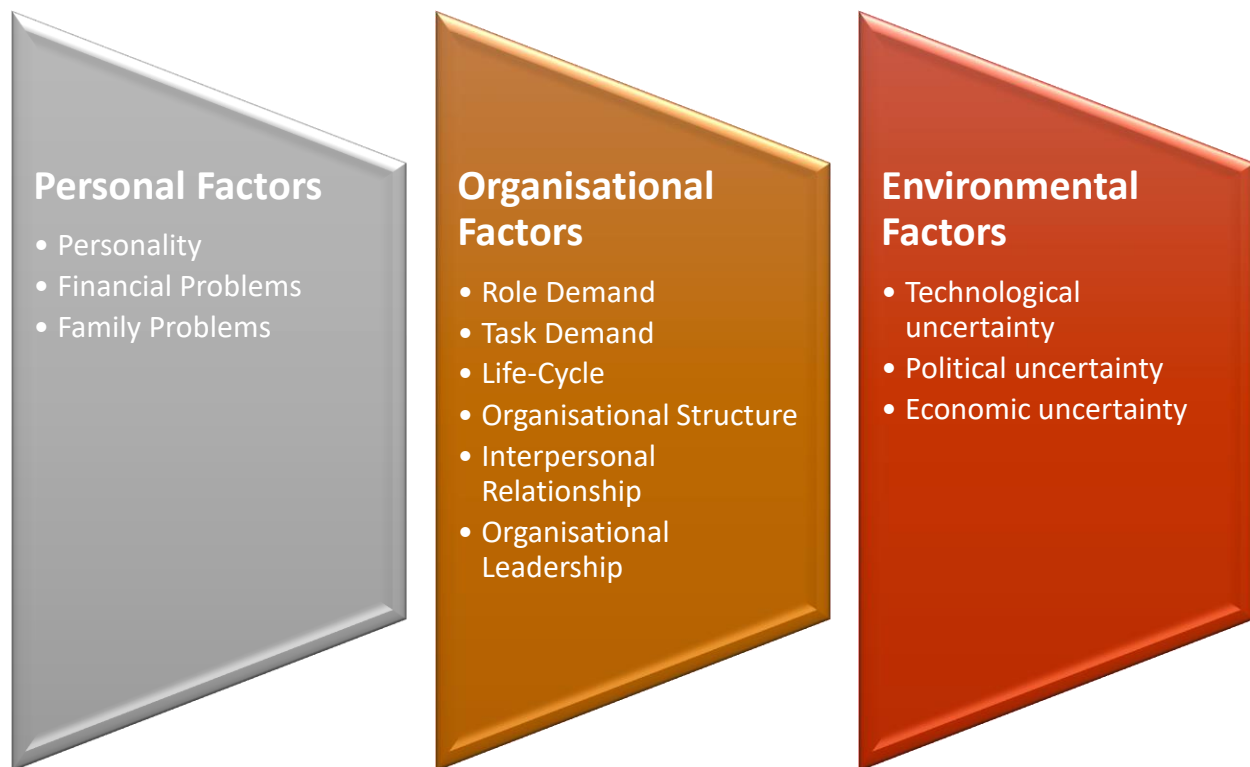


Figure 2. 3: Types of stressors Adapted from Stranks (2005)

Ekundayo (2014) confirmed that the causes and the consequences of stress differ from person to person, organisation to organisation and industry to industry. We agree. But there is little or no

evidence regarding the variation in causes and consequences for employees within the HE sectors specifically.

In other words, it is possible that there are different *combinations* for different employees, such as: high physiological symptoms alongside low behavioural and cognitive symptoms, or low physiological but high behavioural and cognitive symptoms, or any of the three with one being higher or lower in contrast to the other two. It is also possible that some individuals may demonstrate all three types of symptoms at either a high or low level. Indeed, there could be any combination for any individual in the work setting, yet to be measured within one analytical framework to include gender, faculty and country differences.

Recently Haque and Aston (2016) and Haque *et al.*, (2016) investigated variation in the consequences of stress within the IT sectors of Pakistan, Canada and the United Kingdom, using only quantitative methods. We favour pragmatic use of qualitative and quantitative techniques insofar as they address the variables of interest.

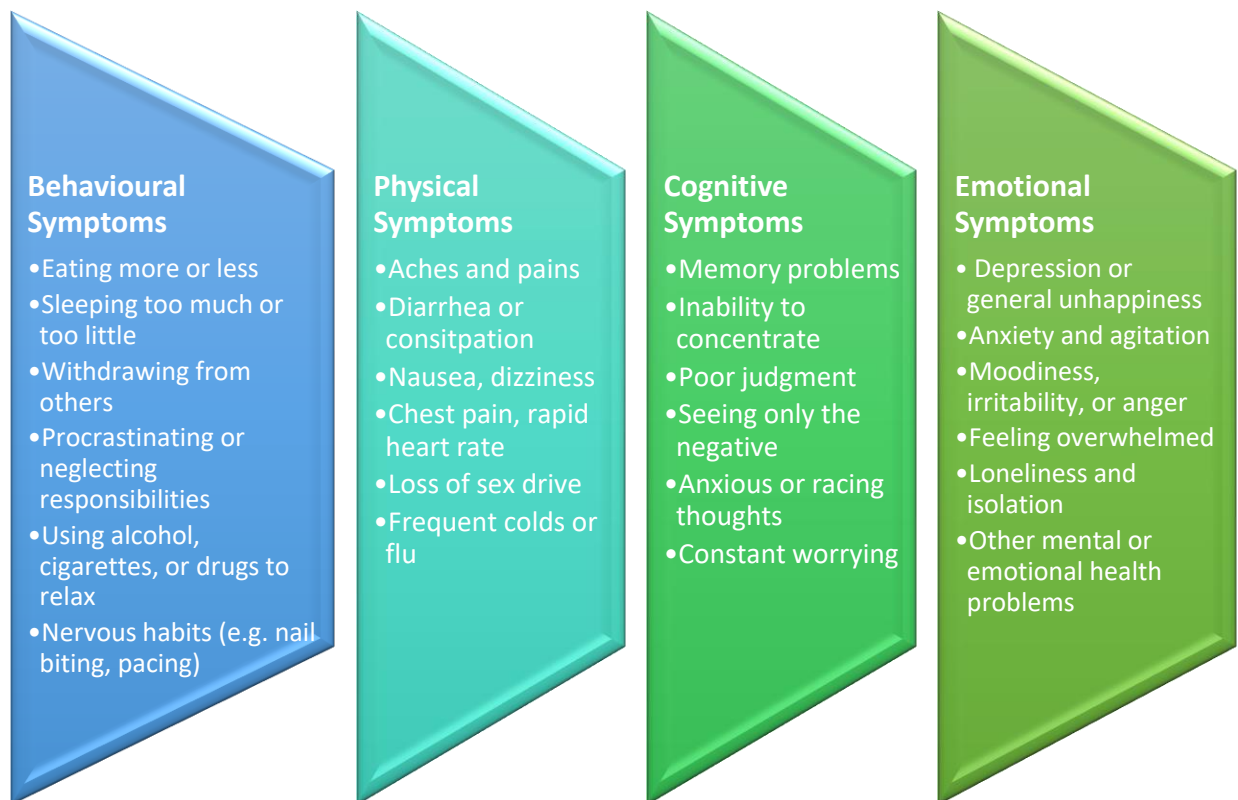


Figure 2. 4: Types of Stress consequences Adapted from Stranks (2005)

Interestingly, Stranks showed that instead of considering the emotional and cognitive as two separate types of symptoms, they can be viewed as a single effect, namely: “psychological symptoms”. Indeed, the literature on the consequences of stress also considers them as a single effect. However, in this study, emotional and cognitive effects are treated as two, separate attributes.

Haque, Aston and Kozlovski (2016) found that operational level employees mostly experience personal stressors, while managerial level employees are affected by organisational stressors. In addition, a developing country’s workforce experiences higher stress than a developed country’s workforce (Haque and Aston, 2016; Haque *et al.*, 2016). However, these studies did not identify specific symptoms, gender differences nor different levels of management, or types of economies. Thus, there is a need to investigate the variation in the effects of the stressors on employees with regard to contrasting genders, especially in the education sector and beyond these, the impact of stressors on organisational commitment across its different dimensions.

There is no available literature on the causes and effects of stress in relation to organisational commitment within the education sector of contrasting economies, either qualitative or quantitative. The next step is to evaluate various models of stress to pinpoint the variables of interest.

2.5 “General Adaption Syndrome” - the GAS Model of Stress

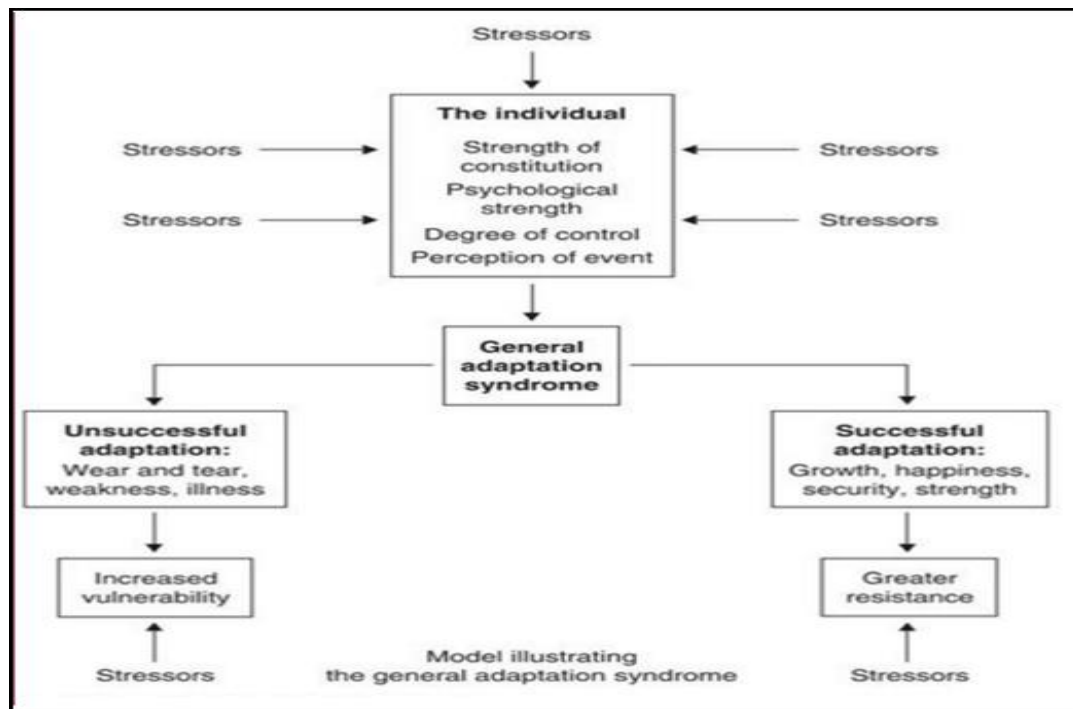


Figure 2. 5: ‘General Adaptation Syndrome’ (Stranks, 2005)

In 1936, Hans Seyle proposed a celebrated model of stress known as the GAS model (Smeltzer and Bare, 2004). The model argued that persistent exposure to stress causes different types of diseases including ageing (ibid). Oyetimein (2009) and Ekundayo (2014) are based on the GAS model. Seyle included three stages: alarm, resistance and exhaustion (Seyle, 1976; Smeltzer and Bare, 2004; Stranks, 2006; Haque and Aston, 2016). Nevertheless, although it is comprehensive, this basic outline lacks necessary detail and understanding of the stress phenomenon. It remains useful in that it includes psychological mechanisms and interlinked attributes demonstrated by individuals when experiencing stress. It also highlights why stress is damaging to a person’s well-being, physical and psychological. It fails, however, to predict chronic stress complications that result from it (Alice, 2012). Additionally, individuals view, act and react differently to stressful situations and, thus, this model overlooks the notion of an individual’s ability to see and adapt differently to different types of stressor (Alice, 2012).

Stranks (2005) argued the GAS does allow for the way that, in the face of stressful situations, people react differently, adding that a person’s particular reaction may enable them to handle the

stressful situation efficiently or otherwise, with unsuccessful adaption resulting in serious illness. Conversely, individuals who experience personal growth and greater happiness would be more successful in a stressful situation (ibid). For Stranks (2006) adequate strategies for coping with stress, including self-awareness and other personal resources are useful in surviving stressful situations (Haque and Aston, 2016).

The GAS model remains a constructive foundation for the development of interactional and transactional theories that have followed, offering a starting point for exploring the impact of stress on the dimensions of organisational commitment:

- affective commitment (AC)
- normative commitment (NC)
- continuance commitment (CC)

From Stranks' (2006) development of the GAS model, a less basic understanding of stress can be developed. However, we must consider also *interactional* and *transactional* theories and models of stress.

2.6 Interactional and Transactional Theories of Stress

2.6.1 Interactional theories

According to Stranks (2005), interactional theories of stress focus on individuals' interactions with their respective environment. Interestingly, this school of thought treats stress as an emergent phenomenon, occurring through interaction between a person and their environment (Cox and Griffiths, 1995; Stranks, 2005; Haque and Aston; 2016). Lewin (1951) argued that the relationship between individual attributes and environmental attributes is what matters (Mark and Smith, 2008; Haque and Aston, 2016).

2.6.1.1 Person-Environment Fit Model

In 1982, French, Caplan and Van Harrison proposed a "P-E Fit Model", according to which stress occurs when there isn't a perfect "fit" between a person and the environment (Jovanovic *et al.*, 2005). Well-being is compromised. This theory distinguishes subjective perceptions and objective reality and but also person variables (P) and environmental variables (E). Thus, the lack

in the “fit” situation can occur in *four* distinct ways when P x E interact (2 into 2). Each situation could be challenging for the workers, as stress will be incurred (Jovanovic *et al.*, 2006). Hence, a poor P-E fit creates stress in both an objective and subjective manner. Mark and Smith (2008) agree that the “P-E Fit Model” promises good health when individuals and their work environment matches. It follows that to remain in this healthy state, it is essential that employees abilities, skills and attitudes develop in step with environmental changes, for example, changing job attributes which call for new skills (Mark and Smith, 2011). The ‘match’ needs maintaining to avoid emergent misfits, objective and subjective manner (Sonnentag and Frese, 2003; Mark and Smith, 2008). However, Bunnk *et al.*, (1998), argued that in this same model allows for a “defense mechanism” operating to minimize subjective misfits, particularly through reappraisals and denial.

It is important, then, not to assume that either person and environment is unchanging. In practice, both changes. The model is difficult to test in that it probably demands longitudinal data tracking changes in persons and in the environment and in the interactions, and in the outcomes. It should not be surprising that there is limited empirical testing of this model (Buunk *et al.*, 1998; Mark and Smith, 2008). Furthermore, Haque and Aston (2016) criticise the P-E-Fit model for treating stress as external attribute while stress could emerge out of the internal attributes of the person, notably their thought-processes. This matter of the changing forms of reasoning which actors employ in relation to changing circumstances and in relation to the reasoning used by other actors is something we return to in our discussion of G-GCT.

2.6.1.2 The Job Characteristics Model

The Job Characteristics Model is interactional theory, here developed by Hackman and Oldham (1980). It concentrates on the attributes of the job including: autonomy, variety, skills, task importance, task identity and response (Hackman and Oldham, 1980; Mark and Smith, 2008) but also recognises psychological states and the re-shaping of knowledge, experience and responsibilities (Cox and Griffiths, 1995; Mark and Smith, 2008). It suggests that a specific mental state is given rise to by job-attributes of a positive or negative nature, affecting absenteeism, satisfaction, motivation (Hackman and Oldham, 1980; Cox and Griffiths, 1995; Mark and Smith, 2008). This model is easier to test because it specifies job characteristics. Kompier (2003) argued that there is sufficient literature on job attributes (Kompier, 2003; Mark and Smith, 2008), making

Job Diagnostic Surveys possible. Yet it contributes to understanding psychological states in a limited manner (Mark and Smith, 2008).

2.6.1.3 The Vitamin Model

Warr (1987) proposed an extension in the form of a “Vitamin Model” (Mark and Smith, 2008). This metaphor has it that specific types of job can affect mental health much as different vitamins do. The Vitamin Model specifies a non-linear relationship between the characteristics of a job and mental health outcomes, including employee well-being. de Jonge and Schaufeli (1998) agree that environmental psychological features like job attributes affect the mental health. And the proposition that the effects are comparable to the non-linear effects that vitamins have on one's physical health has supporters (De Jonge and Schaufeli, 1998). By extending the metaphor we see that impairment results from vitamin deficiencies.

“In general, initially the physical functioning and health improves by the intake of vitamin, but beyond a certain level of intake no further information is observed” (de Jonge and Schaufeli, 1998; p. 388). There is likely possibility of having two different kinds of effect in case of continued intake of vitamins, such as 'constant effect - health neither improves nor [is there a] noxious effect on [the] physical health of individual being observed', while withdrawal of the ‘vitamin’ reflects in a curvilinear pattern of decline (Ibid). It was Warr (1987) who argued that “the effects of job characteristics upon mental health parallel the ways in which vitamins act upon the human body. Following this line of reasoning we could refer to Warr's vitamins as work vitamins” (de Jonge and Schaufeli, 1998: 388).

Warr (1987) stated that at the beginning of their employment, employees’ mental health is beneficially influenced by job characteristics while deficient job attributes harm their mental health. However, “beyond a certain required level, vitamin intake has no positive effect anymore: a plateau has been reached and the level of mental health remains constant” (Warr, 1987; cited de Jonge and Schaufeli, 1998; p. 389). Changes in job attributes (ie. changes in ‘job vitamins’) might either develop a constant effect or might harm workers’ mental health (Warr, 1987). Note that here the effect is an outcome of job characteristics but also on the constitution (make up) of the worker. Warr (1994) gave some thought to these ‘curves’: “the curvilinear pattern is likely to vary across different kinds of mental health outcomes”....“a mid-range plateau, which appears to be less pronounced is expected for job-related well-being and an inverted U-shaped relationship is

postulated. Finally, it seems plausible that the particular shape of a curve depends upon the particular kind of variables being studied. For example, an inverted U-shape pattern is expected in case of job autonomy and job satisfaction, whereas a U-shaped curve is expected in case of job autonomy and emotional exhaustion” (de Jonge and Schaufeli, 1998; p. 389).

What might these ‘vitamins’ be? Warr (1987, 1994) “distinguishes five components of mental health: (1) affective well-being; (2) competence; (3) autonomy; (4) aspiration; (5) integrated functioning”. A plethora of psychological research focused on 'affective well-being' as an indicator of job-related mental health. Russell (1980) and Watson and Tellegen (1985) followed a similar framework which postulates affective well-being formed of ‘pleasure’ and ‘arousal’ as two orthogonal dimensions, with ‘anxious-comfortable’ and ‘depressed-actively pleased’ as two separate axes.

Within the occupational settings, “the first axis (i.e. discontented-contented) has mostly been operationalized through measures of job satisfaction, but measures of job attachment and organizational commitment have been used as well” (Warr, 1987; cited de Jonge and Schaufeli, 1998; p. 390). “The second axis (i.e. anxious-comfortable) is usually tapped through measures of job-related anxiety, job-related tension, and job-related strain. Finally, the third axis (i.e. depressed-actively pleased) is assessed by such measures as occupational burnout, job-related depression, job boredom, and fatigue” (Warr, 1987; cited de Jonge and Schaufeli, 1998; p. 390). This group of theories is notable for their functionalist assumptions in which stress is a dysfunctional outcome of dysfunctional components.

The proposition that some job attributes have "constant effects" on individuals by working linearly with an enhanced “dose” only to a certain level, after which there is no constructive or deductive effect (Buunk *et al.*, 1998). That is such ‘vitamins’ are not poisonous even at high doses, rather like vitamin C. Task significance, security and salary are some of the suggested ‘vitamins’ (Buunk *et al.*, 1998). On the other hand, van Veldhoven *et al.*, (2002) argued that when there is a moderate level of stress, an “additional decrement” or curvilinear effect might even be experienced productively by some.

But what of the make-up of each individual? The effects of stress could vary with the ability of a person to cope, specific to their social support, the task feedback they receive, the skill, skill utilisation, variety, autonomy, and intensity of job demands (van Veldhoven *et al.*, 2002; Mark

and Smith, 2008). In this model, health is affected by job-attributes in three dimensions (Buunk *et al.*, 1998), “depressed-pleased”, “anxious-comfortable” and “discontent-content” (Buunk *et al.*, 1998; Mark and Smith, 2008). This model is an interesting extension to interactional theories of stress (Buunk *et al.*, 1998; Sonnentag and Frese, 2003). Yet van Veldhoven *et al.*, (2005) argued that like the DCS model (below) it lacks supporting empirical evidence.

2.6.1.4 Demand Control Model

In 1979, the Demands-Control Model was conceived by Karasek (Kompier, 2003). It has proved highly influential (Mark and Smith, 2008). It began by treating job demands and job control as psychological attributes of a job (Mark and Smith, 2008). Karasek (1979) referred to job control as “latitude” formed of skill discretion (likely through competencies and learnt skills) and decision authority (control over a situation while working in the organisation) (Karasek, 1979; Jovanovic *et al.*, 2006; Mark and Smith, 2011; Haque and Aston, 2016). Although the model considers psychological features, it also encompasses the employee’s interaction with the operating environment (Cox and Griffiths, 1995).

Job Control	Low Job Demands	High Job Demands
Low Control	Passive Job	High-strain Job
High Control	Low-strain Job	Active Job

Figure 2. 6: The Job-demands and Job-control Model (Karasek, 1979)

Interestingly, the ‘JDC’ model (Karasek, 1979), above, found that mortality, cardiovascular disease, fatigue and depression are likely when there is a low level of job control and high level of demand. However even in such challenging situations, some individuals demonstrate a *lower* level of illness (Karasek 1979; Cox and Griffiths, 1995). High strain is predicted by Karasek (1979),

when low control and high demand interact in an unfortunate way, and where increasing worker control would protect against adverse effects. Johnson and Hall (1988) extended the model by including social support, thus forming the DCS model in which, in situations of high demand, social support would work as a buffer (Karasek and Theorell, 1990; Lim 1996; Cooper, Dewe, and O'Driscoll, 2001; Mark and Smith, 2008). Van der Doef and Maes (1999) argued that variations in support, demands and controls explain much of the variance in health outcomes.

Warr (1990) argued that demands and controls are affected interactively by support, in an additive fashion. However, although the extension of social support is a valuable conceptual addition, the model is rather limited in its consideration of job-attributes and, therefore, might not explain the nature of the modern workplace comprehensively, where the environment is dynamic and many varying stressors are present. At the macro-level, the predictive validity of the model is good, but it does not consider the vulnerability of individuals to stressors (Perrewe and Zellars, 1999; Mark and Smith, 2008; Haque and Aston, 2016). The model does not offer a rational explanation for two individuals experiencing the same level of work demand but very different health and behavioural outcomes (Perrewe and Zellars, 1999). (For further details, *See Appendix F.*)

Table 2. 1: Interactional Theories of Stress

Model	Main Concept	Advantages	Limitations	Reference
Person-Environment fit model	Stress incurs in the absence of fit or mismatch between person and environment.	<ul style="list-style-type: none"> • Introduces two major distinctions; (a) subjective perceptions and objective reality, and (b) personal and environmental variables. • Scenario based analysis to find explain stress. 	<ul style="list-style-type: none"> • Unrealistic assumption that interaction between person and environment is static and stable. • Treats stress as only external attributes. • Limited empirical evidence to support P-E Fit model. • It does not consider job related characteristics (task identity, task response, task importance, autonomy, etc). 	(French, Caplan, and Van Harrison, 1982; Jovanovic, <i>et al.</i> , 2006; Mark and Smith, 2008)
The Job Characteristics model	Job characteristics affect mental state of individual leading to show behavioural and cognitive symptoms.	<ul style="list-style-type: none"> • Considers job characteristic as significant feature to explore stress. • Treats psychological stress resulting from job related attributes leading to explain cognitive and behavioural symptoms. • Testing this model is practically viable. • Job characteristics are supported by vast empirical literature. 	<ul style="list-style-type: none"> • Stress phenomenon is not comprehensively elaborated. • Does not predict the complications of chronic stress resulting from causes of stress. • Individual's ability of viewing and reacting to different types of stressors are not considered. • More emphasis on the psychological state while limited insight is given about core job characteristics. 	(Hackman and Oldman, 1980; Cox and Griffiths, 1995; Mark and Smith, 2008)

The Vitamin model	Only specific types of job characteristics affect the mental health of employees.	<ul style="list-style-type: none"> • Treats job characteristics to have “constant effect”, reflecting individual’s ability to cope with it. • Addition of three dimensions, ‘discontent-content’, ‘depressed-pleased’, and ‘anxious-comfortable’. 	<ul style="list-style-type: none"> • The model has inconsistent and mixed results. • Does not have empirical evidence to support findings. 	(Warr, 1987; Van Veldhoven <i>et al.</i> , 2002; Mark and Smith, 2008)
Demand Control model	Job demand and job control are structural psychological features.	<ul style="list-style-type: none"> • Considers psychological attributes while maintaining focus on structural attributes. • Includes a new dimension "social support" working as a buffer in stressful situation. 	<ul style="list-style-type: none"> • Despite having social support, the considered job features are limited hence fail to explain multi-stressors impact in dynamic environment. • Does not give rational explanation regarding different health and behavioural outcomes demonstrated by two individuals experiencing stress from same job attributes. • Complexity of stress model is not clearly explained. • Environment’s subjective perception is ignored. 	(Karasek, 1979; Jovanovic <i>et al.</i> , 2006; Mark and Smith, 2011)

2.6.2 Transactional Theories

Another school of thought focuses on ‘transactions’. Cox and Griffiths (1995) distinguish interactional and transactional models of stress (Mark and Smith, 2008). Interactional models mainly consider *structural* attributes, reflecting types of stressors leading to physiological rather than psychological effect (Mark and Smith, 2008). Transactional models focus on the cognitive aspects and dynamic links between individuals and environments, focussing on emotional and cognitive process (Cox *et al.*, 2000; Mark and Smith, 2008; Haque and Aston, 2016); subjective understandings of the environment. They consider ‘locus of control’, personality, appraisal, coping, features which vary individually (Cox *et al.*, 2000), introduced below.

2.6.2.1 The Effort-Reward Imbalance Model

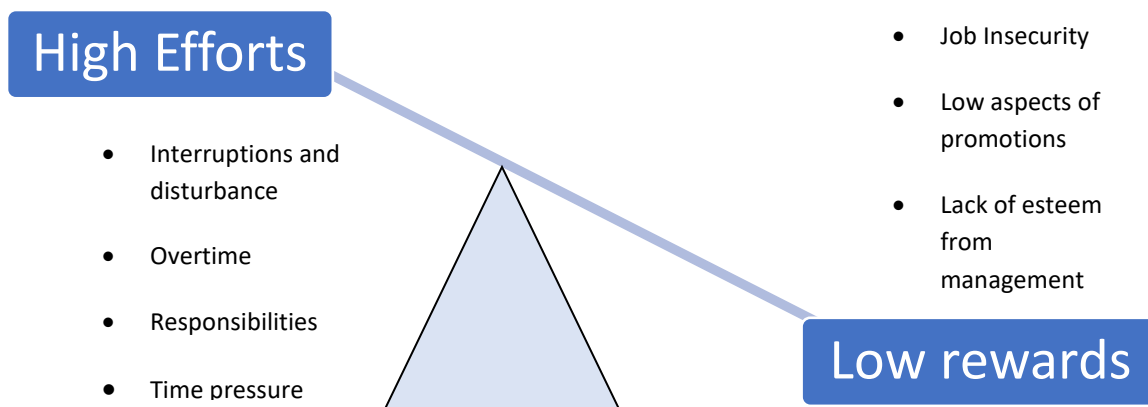


Figure 2. 7: Siegrist's Effort-and-Reward Model (Söderberg, 2014)

Although Siegrist's (1996) Effort-Reward Imbalance (ERI) Model examines workplace stress by focusing on cardiovascular disease it is both similar to the DCS model (Mark and Smith, 2008) and places subjective perception of the environment at the centre. Internal process explications and the role of individual differences were developed further by Folkman and Lazarus (1980) and Cox (1987). Interestingly, these two models both predate Siegrist. However, “reciprocity” is a key shared concept based on the notion that mismatches between efforts-and-rewards cause stressful experiences (Peter and Siegrist, 1999). Additionally, security, career opportunities, self-esteem

and money feature as “rewards” (Peter and Seigrist, 1999; Mark and Smith, 2008). Extrinsic efforts or pressures, including workload appear similar to the DCS model’s ‘job demands’, while intrinsic effort is derived from personal motivation, subject to the rationality of goals (Kompier, 2003).

Siegrist *et al.*, (1990) and Bosma *et al.*, (1998) supported the ERI model by indicating the situation of low reward in return for high effort is likely to escalate the risk of heart disease (Mark and Smith, 2008). Additionally, Van Vegchel *et al.*, (2002) showed that exhaustion and psychosomatic complaints are affected significantly by rewards, particularly when considering job security and self-esteem (Cox *et al.*, 2000; Mark and Smith, 2008). Nevertheless, ERI provides a new dimension to the DCS model with predictive validity, but the dimension of intrinsic effort is explored only in a limited manner through individual differences. The inability of the model to suggest a mechanism through which stress perception is mediated by individual differences is another shortcoming. Kompier (2003) argued that, much like the DCS model, this model does not amount to a comprehensive new theory. However, the DCS and ERI model, especially in combination, are effective in encompassing variations in physical and emotional health outcomes (de Jonge *et al.*, 2000).

2.6.2.2 The Cognitive Theory of Psychological Stress and Coping

This theory proposed by Lazarus and Folkman (1980) is a “Cognitive-Relational Approach” and is one of the most influential transactional theories. It considers individuals and their environments as dynamic in which stress is an internal attribute emerging from an emotional and psychological state, as stressful transactions take place (Folkman *et al.*, 1986). Coping and appraisal are fundamental (Cox *et al.*, 2000). Primary appraisal is critical to subjective evaluation (Folkman *et al.*, 1986 cited Perrewe and Zellars, 1999) and are individual-specific (Park and Folkman, 1997). Events are given meaning according to individual beliefs (Park and Folkman, 1997; cited Mark and Smith, 2008).

Park and Folkman (1997) refer to “situational meaning” which allow for secondary appraisals when a situation is assessed as potentially stressful (Mark and Smith, 2008; Park and Folkman, 1997), for example through self-blaming. Coping strategies associated with personal resources, personality and previous experiences are included (Folkman and Lazarus, 1980), as are emotion-focused and problem-focused coping responses (Mark and Smith, 2008). Here emotions and rationality are treated as separate, which raises the question as to whether or not emotions are

rational. Solomon (2002) argues to the contrary that emotions are dynamic process emerging from interactions with the situation and are *intrinsic* to rational choices. However, Winter (2015) persists with the argument that decision-making entails separate mechanisms (a) the intellectual and rational mechanism and (b) the impulsive and emotional mechanism. Many have assumed that the impulsive-emotional mechanism drives poor choices and that the intellectual mechanism yields correct logical choices (Winter, 2015). However, this description is not just simplistic but incorrect. Winter (2015) argued that intellectual and emotional mechanism operate together, sustain each other in practice. Winter (2015) writes, “a study conducted at the University of California at Santa Barbara indicates that in situations in which we are moderately angry our ability to distinguish between relevant and irrelevant claims in disputed issues is sharpened while another study reveals that our inclination to become angered grows in situations in which we can benefit from anger. In other words, “there is logic in emotion and often emotion in logic” (Winter, 2015). Considering the relationship between the ‘emotional labourer’ (worker) and the person they are interacting with, such as a detained person Smith (2014) argued that “emotional labour can create immediate and long-term good and harm to either party” (400) and that that the (rational) emotional skills of workers matter. The argument about whether or not emotions are rational does not alter the argument that both types of responses have something to do with the situation (Folkman and Lazarus, 1980; cited Mark and Smith, 2008).

Based on Folkman and Lazarus’ work, Vitaliano *et al.*, (1985) argued that it is important to categorise responses, recognising avoidance, wishful thinking, self-blame and social support-seeking as different features of *problem-focused* coping. Falkum, Olf and Aasland (1997) found that defenses, self-blame, support-seeking, positive thinking and accommodation are features of *action-oriented* coping. While these are valuable theoretical developments it is difficult to evaluate coping responses empirically, and especially across different organisational and country cultures, owing to the complexity of the model. Culture will reflect in the outlook of individuals towards events, norms, traditions, history, and their sense of value and proportion.

Cox and Ferguson (1991) and Cooper *et al.*, (2001) argue that it is difficult even to define the term “coping” in terms of the specificities of a situation, imputed stable traits, actual behaviour and the processes involved (Mark and Smith, 2008). Another criticism by Briner *et al.*, (2004) is that the anticipated future and history of the individuals are not considered by this model, and therefore that its grasp of appraisal is under-developed.

2.6.2.3 Cox's Transactional Model

To investigate occupational stress from the transactional perspective, Cox has developed and modified his transactional model more than once (Cox 1978; Cox and Mackay, 1981; and Cox *et al.*, 2000). Some features and stages are similar to the model proposed by Folkman and Lazarus, particularly the first two stages, but the essential distinguishing feature is a much greater concentration on individual differences, occupational health and structure (Cox and Ferguson, 1991; Mark and Smith, 2008). According to Cox *et al.*, (2000), stress is a “psychological state” resulting from a mismatch between an ability to cope with a situation and the perception of its demands (Cox *et al.*, 2000). The degree of support from others, the ability to cope, along with the demands experienced from internal and external sources, affect the primary appraisal process (Cox and Ferguson, 1991). Similar to Folkman and Lazarus’ model, coping and secondary appraisal are involved in a third stage causing physical and mental changes (Cox *et al.*, 2000). Individuals undergoing stress exhibit psychological changes such as depression, tension, anxiety, mood swings, emotional disturbance (Cox and Ferguson, 1991; Mark and Smith, 2008). Illness appears when, despite having awareness of the stressful problem, individuals are unable to adjust to the situation and remain stuck in a cycle of behaviours (Mark and Smith, 2008). Coping occurs at a fourth stage, while feedback from all the prior stages is a feature of the last stage (Cox *et al.*, 2000). Inclusion of feedback stage and the clarity of the model make it appealing, however as Cox himself has argued, in practice, the problem-solving process is unlikely to be rational (Cox, 1987) and for Mark and Smith (2008) conscious evaluation might not be easily attained and biases are likely, compounded by insufficient information, limited availability of solutions, past experiences, and feedbacks. Nevertheless, these possibilities go some way towards explaining individual differences in problem-solving both successful and unsuccessful (Mark and Smith, 2008).

Although there is similar supporting evidence to Folkman and Lazarus’ model, it lacks conclusive evidence as to the role of mediating and moderating variables (Parkes, 1994; Cooper *et al.*, 2001; Spector, 2003; Mark and Smith, 2008). As is the “cognitive-relational approach”, this model is also complex and difficult to operationalise empirically, in contrast to simple models, such as Karasek (1979) and Siegrists (1996).

2.6.2.4 Demand-Skill-Support (DSS) Model

The DSS model is relatively new while incorporating many existing models' key attributes in a new way (Mark and Smith, 2008). It is built on the Karasek and Theorell's (1990) DCS, by van Veldhoven *et al.*, (2005). The aim here is to reduce the number of factors accommodated. The researchers examined four branches of Dutch industry (n=37,000), exploring associations between organisational commitment and work-related attributes, such as: task satisfaction, job security, job-related fatigue affecting health outcomes, relationship quality with supervisors, peers and colleagues, task autonomy, skills-utilization, physical effort, and the amount and pace of work (Mark and Smith, 2008). Findings included the quality of social relationships, skills-utilization, time demands and physical effort. Interestingly, Job security and task autonomy did not play a decisive role in predicting health outcomes.

van Veldhoven *et al.*, (2005) proposed that qualitative and quantitative demands are associated with strain and health outcomes, whilst wellbeing and attitudinal outcomes are more likely to be associated with social support and skills-utilization. The study is a good starting point for researchers interested in exploring occupational stress and job-related features, while paying relatively little attention to individual differences as they affect the stress process (Mark and Smith, 2008). Subjective perceptions of job demands are given a little recognition (Mark and Smith, 2008). Nevertheless, the model developers had stated that their aim had been to include the minimum necessary factors making the model as parsimonious as possible.

This defense has not placated the many critics who criticize this model for failing to treat stress as a transactional process, subjective and relative (Dewe, 1991; Florio, Donnelly, and Zevon, 1998; Perrewe and Zellars, 1999; Frese and Zapf, 1994; Spector and Fox, 2003; Dewe and Trenberth, 2004). Re-inclusion of psychological processes might be needed, though the question remains as to how complex and comprehensive a model can be and still remain useful. Later we will present a far simpler, two-dimensional theory that claims to be a universal theory of *culture* of which occupational stress, organisational commitment, affective commitment etc. *might* be considered a part. As we will see however, Grid-Group Cultural Theory, while it offers powerful explanations, is *non-predictive*. It is a matter of academic judgement as to whether *simple and powerful explanation* is worth sacrificing in favour of *complex but predictive modelling*. No definitive

answer exists to this dilemma, however this author is very reluctant to abandon whatever powers of prediction models can provide.

2.6.2.5 Demand Induced Strain Compensation Model

Indeed, in the meantime de Jonge *et al.*, (2000) and Rydstedt, Devereaux, and Sverke (2007) found that synthesising (ie combining two models into one larger one and therefore more complex model) indeed resulted in *improved forecasting*. They showed that the ERI and DCS models' sub-attributes had cumulative, independent consequences in forecasting physical and psychosomatic health complaints, job satisfaction and emotional exhaustion. Thus, these studies concluded that future researchers should consider combining and refining these two models in studying workplace stress. The Demand Induced Strain Compensation model (DISC) was developed by combining the ERI and DCS models (de Jonge and Dormann, 2003). As stress in service jobs was the prime focus for which this model was formed, it ought to lend itself well to university employment.

Mention of services should be accompanied by the more particularly sociological (rather than psychological) approach to 'strain' in service jobs, Hochschild (1983) commented on the differences between factory labour on the one hand, the hospitable labour of flight attendant and the coercive labour of debt collectors. She writes "the job of flight attendant is no worse and in many better than other service jobs, [but] it makes the worker more vulnerable to the social engineering of her emotional labour and reduces her control over that labour" (Hochschild, 1983, p. 7). "Hochschild shows how commodification of aspects of intimate life require the creation of emotional labour where individuals are paid to demonstrate 'caring qualities'" (cited Smith, 2014). Hochschild (1983) defined emotional labour to include the effort employees make to exhibit particular emotions in the line of duty as a job requirement. Expressive, bodily and cognitive skills are demanded for which employees develop three emotion regulation strategies (Hochschild, 1979). The expression which emotional labourers put across to the person they are serving are governed by many 'display rules' which are socially originated. In other words, she looks beyond 'methodological individualism' – the idea that we are all pre-social, utility maximising 'agents' out of which 'society' and 'structures' are formed subsequently – to a theory which presumes that individuals are always social actors, in her cases, governed by the specifically capitalist imperative to *commercialise*. As our respondents work for not-for-profit universities, it is also a moot point as to whether Hochschild's work applies as directly to them as to debt collectors,

nannies, flight attendants, stage actors. However, Hochschild is useful for having pointed out that emotions are part of the labour processes of a vast range of jobs including university tutors and front line reception desk staff and for pointing out that these roles are 'gendered'. The majority of hospitable labour is performed by women, and the majority of coercive emotional labour by men (Hochschild, 1983). She observed that the intersection between class and gender produced variations in how "emotion communicates information" (Hochschild, 1983, p. 17). There are certain undesired situations that an individual encounter at workplace and reacting to them could likely reflect the stress related to job, though Hochschild uses the terms stress, alienation, estrangement and strain interchangeably.

Hospitable 'emotion management' is demanded of women, but Hochschild (1983) argues that gender alone is not a determinant of skill. In general, upper- and middle-class employees work more often with people while lower working-class employees deal with the making of things. However female employees are more likely than males to be dealing with people as their central job requirement (for estimates see the appendices in Hochschild, 1983). Thus, gender and class both enter into commercial and civic use of human feeling in ways that pull in different directions:

Emotion management in the line of duty tends to feature in upper class rather than lower class employment, eg diplomats compared with wall-paper printing operators, while among all emotional labour roles, women are over-represented in the least well paid and respected positions (nannies, shop cashiers, bank clerks). Women are also expected to be more expressive than men (obeying different 'feeling rules' and 'display rules'. Interestingly, Hochschild (1983) stated that, "when the emotional skills that children learn and practice at home move into the marketplace, the emotional labor of women becomes more prominent because men in general have not been trained to make their emotions a resource and are therefore less likely to develop their capacity for managing feeling" (p. 165). Women are expected to do more emotion work than men. A study by Wikler (1976), "comparing male with female university professors found that students expected women professors to be warmer and more supportive than male professors; given these expectations, proportionally more women professors were perceived as cold" (cited Hochschild, 1983, p. 168). This has implications for perceived stress in service jobs: women in customer services are more often vulnerable to anger and frustration, more exposed to rude behaviour than males and it appears that being polite and contented is part of their job description and it is expected

of them to remain calm in such situations. A woman's shield against abuse is weaker and the evaluation of female emotional labourers is different compared to their direct male counterparts in the same jobs. It appears that "gender makes two jobs out of one" (Hochschild, 1983, p. 176). Interestingly, there is higher tolerance for abuse among females than males (Ibid), indicating that the stress of service jobs is higher for the females than males.

Where does this leave ERI and DCS models? The ERI and DCS main assumption is that if demands and resources (of many different types) match, this would result in healthy outcomes (Mark and Smith, 2008). Cognitive resource compensates for cognitive demands and emotional resource compensates for emotional demands, while physical resources should also match physical demands (van Veldhoven *et al.*, 2005). van Vegchel *et al.*, (2005) argued that certain types of affective or emotional outcomes result from the interactions of demands and resources.

Adverse outcomes will emerge when there is a mismatch of any type, such as low cognitive resources for higher cognitive demand roles, low emotional resources for high emotional demand roles and low behavioural skills for high behavioural skill roles. These mismatches can be reduced by personal development, growth and learning so that each demand meets with sufficient resources, and motivation rises. de Jonge and Dormann (2003) called this scenario a "triple match principle" (Mark and Smith, 2008). This model features "demands" and "resources" as found in the earlier mentioned two models and works on the principles of reciprocity and balance (Mark and Smith, 2008). More research using this model is required, specifically exploring the specific types of resources that could best compensate (match) the demands in specific domains, especially complex ones such as higher education. Nevertheless, de Jonge and Dormann (2003) and Van Vegchel *et al.*, (2005) have been of vital importance and represent a positive move towards exploring stress at work.

2.6.2.6 The Job-Demand Resource (JD-R) Model

Demerouti *et al.*, (2001) synthesis several approaches by categorizing different psychological attributes into job-demands and job-resources, creating global categories through which to measure impacts on organisational commitment and illness at an individual level (Llorens *et al.*, 2006). Since the present study also aims to explore organisational commitment with stressors, it provides a deeper understanding of the variables of interest. Notably this model recognises social

and physical dimensions of the effort required by a job, and along with efforts, both mental and physical costs.

Mark and Smith (2008) agree that motivation and health impairments are key processes affected by job specificities and available demands and resources (Lloren *et al.*, 2006; Mark and Smith, 2008). For Lloren *et al.*, (2006) health consequences occur through psychological states defined by levels of work engagement and burnout. For instance, the motivation process leads to enhanced organisational commitment if there is high engagement, while the health impairment process might affect the organisational commitment of employees negatively owing to burnout.

Our evaluation is that the JD-R model of Llorens *et al.*, (2006) is an overarching heuristic model which might apply it to all types of occupational settings, irrespective of the specific resources and demands present (Mark and Smith, 2008). The JD-R model is an extension of the DCS model, as it takes in types of resources that could shield (mediate) demands and stress outcomes (Bakker, Demerouti, and Euwema, 2005). There is empirical support for this model. Bakker *et al.*, (2005) confirmed that demands and resources interact in particular proportions leading to proportional variations in cynicism and exhaustion. Llorens *et al.*, (2006) found that between resources and organisational commitment, a mediating role is played by engagement, while between job demands and organisational commitment, a negative relationship is mediated by burnout.

While the JD-R model is supported, the roots of this model lie in the old Karasek (1979) “demands-control model”, which also recognises work environments (Xanthopoulou *et al.*, 2007). Personal resources such as optimism, organisational based self-esteem (OBSE), general self-efficacy, resiliency, are added by Xanthopoulou *et al.*, (2007) to the JD-R model. The authors argued that the outcomes and the environment’s relationship are mediated and moderated by personal resources (Xanthopoulou *et al.*, 2007). They included optimism, which along with other personal resources had already been found to have an effect on efficacy (Van Yperen and Snijders, 2000; Mäkikangas and Kinnunen, 2003; Pierce and Gardner, 2004).

Although evidence that personal resources offer a moderating role on efficacy was not provided by Xanthopoulou *et al.* (2007), they did provide evidence on the mediating effects of personal resources among exhaustion, work engagement and job resources respectively.

Although the role of personal resources has mixed support, we judge that the JD-R model is a significant theoretical development, extending the JDC and DSS models. It also has the potential to be incorporated within the JD-R model.

2.6.2.7 The DRIVE Model

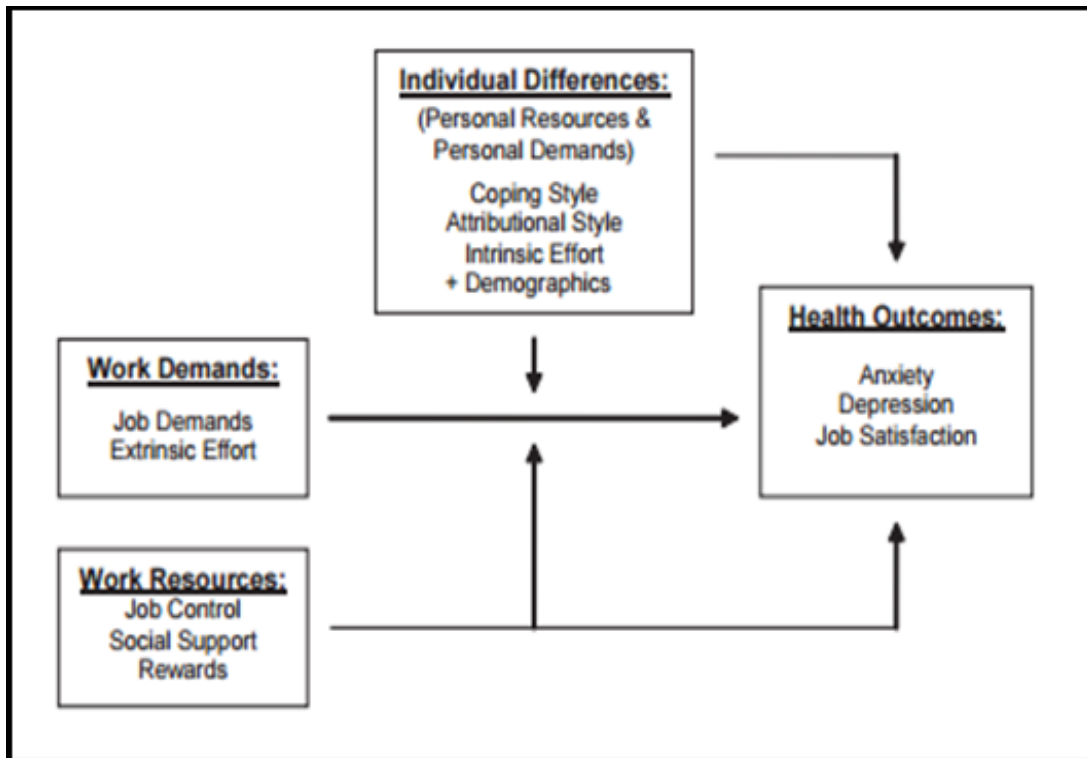


Figure 2. 8: The DRIVE Model (Mark and Smith, 2008)

Mark and Smith (2008) recognised limitations in earlier models of workplace stress (Haque and Aston, 2016; Haque *et al.*, 2016), in this case erring on the side of parsimony. Mark and Smith’s DRIVE Model features three principle components: "demands", "resources" and "individual effects", hence D.R.I.V.E (Haque and Aston, 2016; Haque *et al.*, 2016). It included the following explanatory variables: demographic variables (age, gender), individual differences and job features predictive of depression, job satisfaction, anxiety, (Mark and Smith, 2008). The following Independent Variables were taken from the DCM model:

- job demands
- social support
- decisions

- authority
- skills

To explain coping, intrinsic and extrinsic types were incorporated into the DRIVE model from the ERI Model (Mark and Smith, 2008). Mark and Smith's model manages to be more comprehensive than previous models yet condense the variables of interest into a smaller number of overarching factors, notwithstanding the empirical complexities of workplace stress. In our judgement the most appealing feature of DRIVE is the inclusion of "perceived job stress", as a mediator between "demands and outcomes" and "resources at a workplace" (Mark and Smith, 2011).

DRIVE was tested by Haque and Aston (2016), in the IT sectors of both Pakistan and the UK, in their investigation of the relationship between occupational stress and organisational commitment. They demonstrated that the model has the validity and can be operationalised in a complex business environments. It was shown that "perceived job stress" is the significant mediator which the authors of the DRIVE model had hoped (Haque *et al.*, 2016).

Nevertheless, although DRIVE is the most recent of many models, but there is still limited evidence regarding its use in cross-cultural studies. It has only been applied quantitatively or qualitatively, but never by both methods, even though we judge that it would be pragmatic to do so.

Haque and Oino (2017) have since included "social support" as another mediating variable and we have taken the decision to incorporate this in the present study, thus:



Figure 2. 9: New Dimension added to existing DRIVE Model

In order to sustain the comparative method taken here, consideration was given to Hofstede’s ‘dimensions of culture’ and to Grid-Group Cultural Theory (G-GCT), below, which is often treated as a variant of ‘institutional theory’. It should be pointed out that institutional theory, and within it G-GCT, are usually applied to single cases and only very occasionally explored through survey methods.

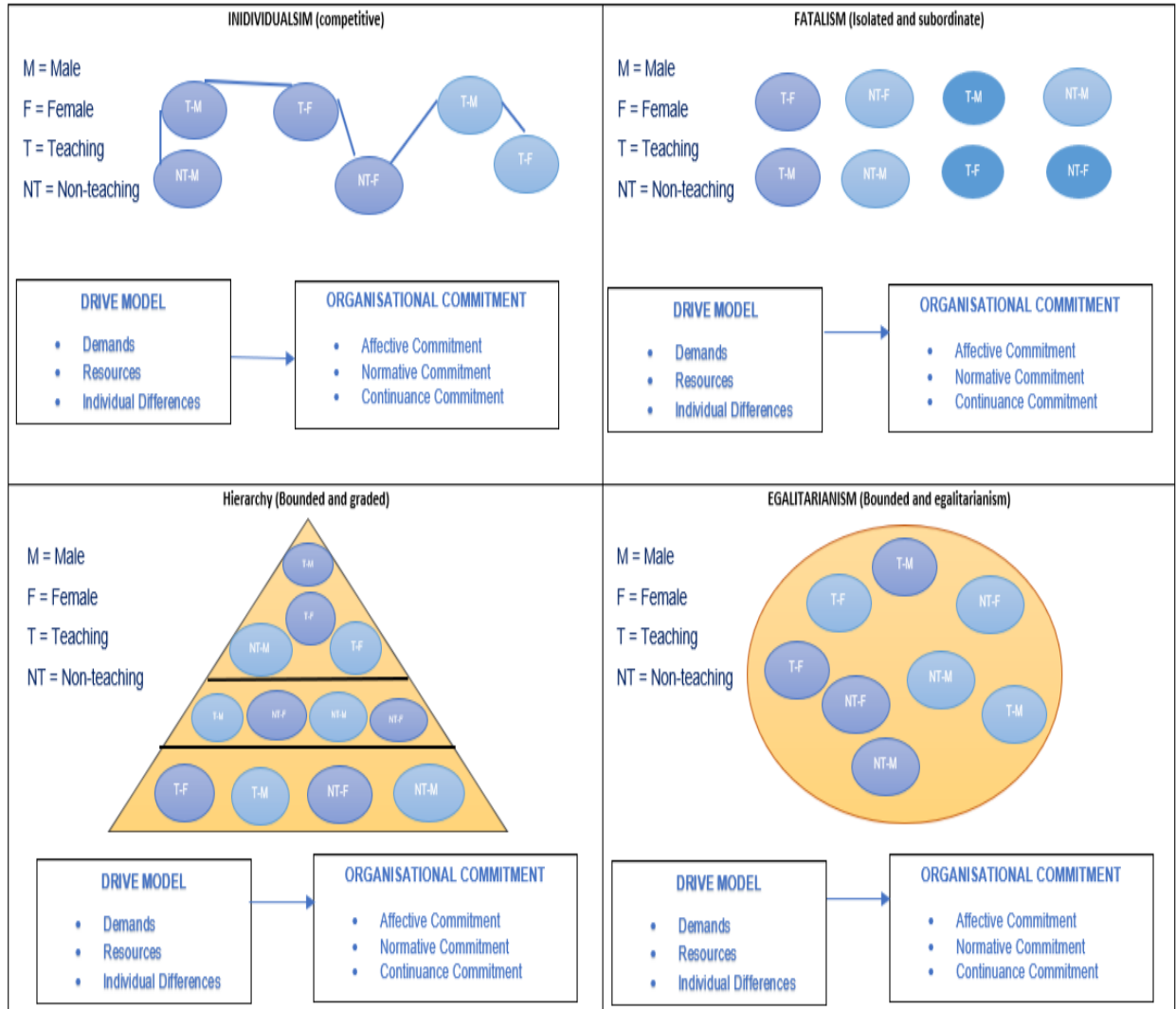


Figure 2. 10: G-GCT used for organizational commitment through the DRIVE Model

The above Figure sets out graphically how the key variables we have discussed so far can be nested inside Grid-Group Cultural Theory. We have done this to preserve the suggestion that our variables have ultimate socio-cultural origins despite, to our knowledge, no previous stress researcher having done so. The meaning of the figure should become clear when we return to G-GCT which we will do shortly, but first a tabulation of all the models we have covered so far which provides an at-a-glance comparison of their different principle features:

Table 2. 2: Transactional Theories of Stress

Model	Main Concept	Advantages	Limitations	Reference
The Effort-Reward Imbalance model	Stressful experience is caused by mismatch	<ul style="list-style-type: none"> • Considers subjective perception of environment as core aspect for stress. • Includes reciprocity concept; stress caused by mismatch between efforts-and-rewards. 	<ul style="list-style-type: none"> • Internal process explications are not explored. • Works on general intended principles rather than comprehensive design theory. • Ineffective unless combined with any other model. 	(Siegrist, 1996; Mark and Smith, 2008)
The Cognitive Theory of Psychological Stress and Coping	Emotional and psychological state forms internal stress.	<ul style="list-style-type: none"> • Treats stress as internal attribute. • Introduces appraisal and coping as essential theme of transaction process. • Considers individual differences. 	<ul style="list-style-type: none"> • Lacks practical viability in evaluating coping response in contrasting culture. • The model is too complex in nature. • Lacks rational-processing method explaining stress. 	(Lazarus and Folkman, 1980; Haque and Aston, 2016)
Cox's transactional model	Clear structure for investigating stress through individual differences.	<ul style="list-style-type: none"> • Focuses more on individual differences. • Considers internal and external sources. • Includes 'feedback' stage. 	<ul style="list-style-type: none"> • Excessive focus on the variations in resources, hardiness, and locus of control. • Difficult to gain conscious evaluation due to chances of biased and manipulated responses. 	(Cox <i>et al.</i> , 2000; Cooper <i>et al.</i> , 2001; Mark and Smith, 2008)
Demand-Skill-Support model	Only key organisational factors affecting job creates stress.	<ul style="list-style-type: none"> • Focuses on specific occupational factors. • It is relatively simple in comparison to previous transactional stress models. 	<ul style="list-style-type: none"> • Only test and considers limited job-related features, thus it is not comprehensive. • It does not consider individual differences 	(van Veldhoven <i>et al.</i> , 2005)

Demand Induced Strain Compensation model	Specific emotional outcomes are driven from qualitative dimensions match	<ul style="list-style-type: none"> • Considers demands and resources to measure the stress through cognitive demands and resources, emotional demands and resources, and physical demands and resources • Introduces "triple match principle" to measure the stress and coping aspects. 	<ul style="list-style-type: none"> • It is not practically viable in complex environment. • It does not have empirical evidence to support findings in cross-cultural studies. • Does not consider categorization of psychological features into job related demands and resources. 	(de Jonge <i>et al.</i> , 2000; Rydstedt <i>et al.</i> , 2007; Mark and Smith, 2008)
The Job-Demand Resource model	Stress explored in social and physical dimensions.	<ul style="list-style-type: none"> • Categorizes psychological features into job-demand and job-resources for measuring the impact on the organisational commitment. • Supported by various empirical researches. 	<ul style="list-style-type: none"> • Follows traditional pattern by focusing more on environment related different features. • Mediating variable 'personal resources' has inconsistent support from the empirical researches. 	(Demerouti <i>et al.</i> , 2001; Xanthopoulou <i>et al.</i> , 2007)
The DRIVE model	Stress examined through demand, resource, and individual effects using explanatory variables and perceived job stress.	<ul style="list-style-type: none"> • Most comprehensive model by including the important features of previous models. • Simplistic in nature. • Contains explanatory variables, job-related characteristics, and individual differences • Considers demands, resources, and individual effects at explore stress at workplace. 	<ul style="list-style-type: none"> • Limited empirical evidence to be tested in cross-cultural aspect. • Despite having feasibility and validity, there is little evidence of this model used in exploring stress in the complex business environment. • Model is not new but adoption of various attributes from other transactional and interactional models. 	(Mark and Smith, 2008; Haque and Aston, 2016; Haque <i>et al.</i> , 2016)

2.7 Perceived Organisational Support

Before joining organisation, employees will have some perceptions regarding organisational support programmes. According to Haque and Yamoah (2014), it is possible for different types of organisational commitment to result from the actual organisational support *or* from these perceptions. Eisenberger, Huntington, Huthinson and Sowa (1986), formed the “Organisational Support Theory” (OST) suggesting that firms demonstrate that they value and care about employees by meeting their socio-emotional needs. They do so by offering a range of workplace benefits (Haque and Yamoah, 2014). Employees sense this (*ibid*).

POS is a concept used in the psychology and management disciplines (Fuller *et al.*, 2003; Stamper *et al.*, 2003; Aube *et al.*, 2007; Allen *et al.*, 2008), however, it is defined differently in different fields. One of the earliest definitions is by Eisenberger *et al.*, (1986): “perceived organisational support (POS) is a degree of *employees’ belief*, [that the organisation is] taking care of their well-being and [that] their contributions [are] being valued...under global beliefs” (p. 504; cited Haque and Yamoah, 2014, emphasis added). On the other hand, Allen *et al.*, (2008) define POS as the degree to which organisations value their employees’ contribution and *demonstrate* this by providing organisational support at the workplace. The first definition begins with employee’s perceptions while the second stresses objective organisational practices. What is common to both definitions is that individual understandings matter and that however formed, these perceptions are real in their consequences. Although there is no unanimity around whether POS should prioritise perceived or actual organisational support, it is agreed that it will vary from person to person, organisation to organisation, sector to sector and even industry to industry (Haque and Yamoah, 2014). For some employees, the focus of their perception will be their organisation’s willingness to provide them with what they need in terms of equipment and other materials for completion of assigned tasks (Haque and Yamoah, 2014). For other employees POS will be intangible, such that the organisation is felt to be willing to provide training which will enhance their future careers. (For details, *see* Appendix F).

HR practices may shape an employee’s attitude and behaviour in a positive way (Colakoglu and Culha, 2010). Rhoades and Eisenberber (2002) found that favourable job conditions, fair treatment, supervisory support, reward and appreciation are linked with POS. Earlier findings of Eisenberger *et al.*, (1986) were that POS has more to do with the personal efforts of the employee rather than organisational provisions. Taking the more ‘objective’ route, Aselage and Eisenberger (2003) argued that organisation facilitates matter, here as aligned to

organisational goals. For Haque *et al.*, (2015) it is the organisation that aligns organisational and individual goals and organisational goals in such a manner that organisational support programmes are beneficial to employer and employees. Faizan and Zehra (2016) found that although a good quality working life has a significant role in the creation of organisational commitment, *leadership* is more important than support provision, in determining the organisational commitment of employees, at least in the IT sector.

Although 'perceived organisational support' is reckoned a significant variable, its causal connection to organisational commitment, job satisfaction, employee engagement and employee performance is under-researched, and non-existent as far as comparative research in HE is concerned. It is known that employee's effectiveness is linked with organisational commitment and the attainment of organisational and personal objectives. It is also known that there is a relationship between job satisfaction and organisational commitment, where organisational support plays a mediating and moderating role (Rhodes and Eisenberger, 2002; Aube *et al.*, 2007; Riggle *et al.*, 2009). Nevertheless, we need to distinguish a specific type of organisational support, social support, in order to establish its role among other variables.

2.8 Social support

For Haque and Oino (2017), social support is an intangible form of organisational support in the shape of moral and emotional support within organisations. It exhibits a significant relationship with job satisfaction, job performance and job stress (House, 1981; Hurlbert, 1991; Park *et al.*, 2004; Sackey and Sanda, 2011; Kumasey *et al.*, 2014; Haque and Oino, 2017). Schwarzer and Leppin (1991) found that in public organisations, the wellbeing and health of employees tends to improve with social support especially when the tasks are repetitive (Sackey and Sanda, 2011). Others have found social support contributes towards a relaxing and comfortable environment for employees by reducing their workplace-related stress and thus works as environmental coping resource (LaRocco, House and French 1980, House, 1981; Cohen and Wills 1985; Moos and Schaefer 1993; Brotheridge 2001; McGuire, 2007; Sanda and Sackey, 2010; Sackey and Sanda, 2011).

The next step is to consider gender perspective. Sackey and Sanda (2011) found that females use social support programmes more effectively than males in public organisations, using it to deal with anxiety, depression and frustration. Haque and Oino (2017) confirmed this for the logistic sector of different economies. Both studies confirmed that social support has a mediating effect on organisational commitment and job stress. Indeed, social support is

perceived and received by females more constructively than males in public organisations (Sackey and Sanda, 2011) and private organisations (Haque and Oino, 2017). It enables workforces to develop “adaptive responses” to occupational stress (Brannon and Feist, 1992; Sackey and Sanda, 2011; Haque and Oino, 2017). Haque and Oino (2017) confirmed that women demonstrate adaptive responses more frequently than do men, in the IT sectors of Pakistan and Canada. It remains open as to whether results would be similar in higher education, where job descriptions and types of support are likely to be altogether different.

Kumasey *et al.*, (2014) argued that an employee’s performance tends to be enhanced as occupational stress declines. Sackey and Sanda (2011) showed that employee’s performance increases with social support programmes which are effective in retaining employees and reducing stress (Haque and Oino, 2017). These were quantitative studies.

Haque and Oino (2017) carried out qualitative research in logistics, using a comparative approach to enhance understanding of the variables of interest. Kumasey *et al.*, (2014) found that women are more vulnerable to workplace stress than men, yet Haque, Aston and Kozlovski (2016) found that converse. Note that Kumasey *et al.’s.*, research was in a developing country, while Haque *et al.* studied both a developed and a developing country, neither including higher education.

Sackey and Sanda (2011) found that workplace stress is present at all layers of management. Kahn and Byosiere (1990) found that at all levels of management, psychological reactions are commonly reported including: depression, anxiety, wellbeing disturbance and health deterioration (cited Sackey and Sanda, 2011). Furthermore, Lim and Teo (1996) and Kumasey *et al.*, (2014) reported that organisational politics is a common type of stressor for females at a workplace, while Kumasey *et al.*, (2014) found that non-managerial employees report lower stress than managerial colleagues. However, Haque and Aston (2016) found the opposite. Similar findings were made by Virk *et al.*, (2001) in healthcare.

Sackey and Sanda (2008) argued that within different layers of management, there is evidence of variation by gender. Women at lower levels have higher POS and use social support more effectively (Sackey and Sanda, 2008) while irrespective of position, females use social support effectively than male counterparts due to women’s greater perceptiveness (Parry and Shapiro, 1986; Sackey and Sanda, 2011; Haque and Oino, 2017). Another investigation (Sackey and Sanda, 2010) revealed that workplace social support leads to enhanced employee performance, engagement, health, commitment and well-being.

However, Kets de Vries *et al.*, (2009) found that the prevailing culture inside an organisation has significant effects on stress levels, adding that it is not necessarily gendered but instead, depends on the actual nature of the work.

This literature is somewhat mixed and not cumulative. It does not enable us to conclude whether higher stress is experienced at particular organisational layers or varies with gender and certainly not for the HE sectors. Previous studies by Haque and Aston (2016); Haque *et al.*, (2016); and Haque and Oino (2017) have compared gender, different seniority levels and economies mostly in IT and it is an open question whether their findings apply to HE. Of these three studies, two are quantitative, the other qualitative. A pragmatic qual/quant approach might provide us with more.

2.9 Job Satisfaction

Once more definitions of job satisfactions vary. Colakoglu and Culha (2010) considered job satisfaction (JS) to be an “affective-laden attitude”, a complex phenomenon. Ivancevich and Matteson (2002) consider it consists in each individual's attitude and feelings resulting from a perfect match between their perception and their experiences. A simpler definition is offered by Robin and Judge (2009): “an additional variable, inside the organisational setting, used for the assessment of individuals’ feelings arising from work and workplace environment” (p. 65), while Locke (1977) treats it as an employee’s emotional state resulting from their appraisals or job experience. For Sempene *et al.*, (2002) job satisfaction is an outcome of the job, evaluations and perceptions of employees based on their values, needs and expectations. These affect feelings. If happy about work, then their feelings will amount to job satisfaction. Hence, JS tends rises with employees’ positive evaluations. If there is a difficulty with this proposition it is that it is rather tautological.

- Job satisfaction (JS) is established as a positive perception and evaluation, but what is its relationship with organisational commitment (OC)? First a definition of OC. Organisational commitment is a positive intent developed by employees towards their organisation which helps to support organisational goals (Haque and Aston, 2016). Affective commitment (AC), normative commitment (NC), and continuance commitment (CC) are three antecedents of organisational commitment (Mowday *et al.*, 1979; Allen and Meyer, 2001; Porter *et al.*, 2005; Haque and Yamoah, 2014; Haque *et al.*, 2015; Haque and Aston, 2016; Haque *et al.*, 2016; Haque and Oino, 2017). The connection between JS and the antecedents of OC in various sectors is as discussed

above. (For further details, *see* Appendix F). This means that critical evaluation of OC and its dimensions is essential to our research.

2.10 Organisational Commitment (OC)

Here the dependent variable is discussed at length. Haque and Yamoah (2014) have argued that OC is identified and explained by many researchers from behavioural science disciplines. For Sheldon (1971) OC is that positive intent employees demonstrate by ensuring that organisational goals are accomplished. An earlier definition is based on Becker's "Side-Bet" theory (1960), according to which "when the person and his performed activities are in a steady line, it creates a side-bet, as the interest of a person develops towards the assigned activities, reflecting commitment" (Becker, 1960; p.32). Becker's side-bet theory is heavily criticized by theorists because it presumes that it is an attribute of individuals' behaviour. Instead, OC can be seen as a 'trade' between the worker and the organisations against payment or rewards (Sheldon, 1971; Buchanan, 1974; cited Porter, Steers, and Mowday, 2005). Even this is far from qualifying as a comprehensive theory.

Bateman and Strasser (1984) argue thus, "a worker's desire to be...affiliated with their...organisation [causes them] to...demonstrate efforts to achieve organisational goals and remain loyal" (p. 97). This is tautological. Worse, it is not always the case that efforts to achieve goals represent loyalty to the organisation. Employees may not be loyal to the organisation but faithful to their responsibilities and tasks. Task commitment is far from organisational commitment. Porter *et al.*, (1974) claimed that organisational commitment is commitment shown by individuals towards their organisation reflected in voluntary effort, accepting organisation's norms, while being willingness to stay with the same organisation. Mowday *et al.*, (1979) identified three attributes of organisational commitment (OC), naming them affective commitment (AC), normative commitment (NC) and continuance commitment (CC) (Haque and Yamoah, 2014).

2.10.1 Dimensions of Organisational Commitment

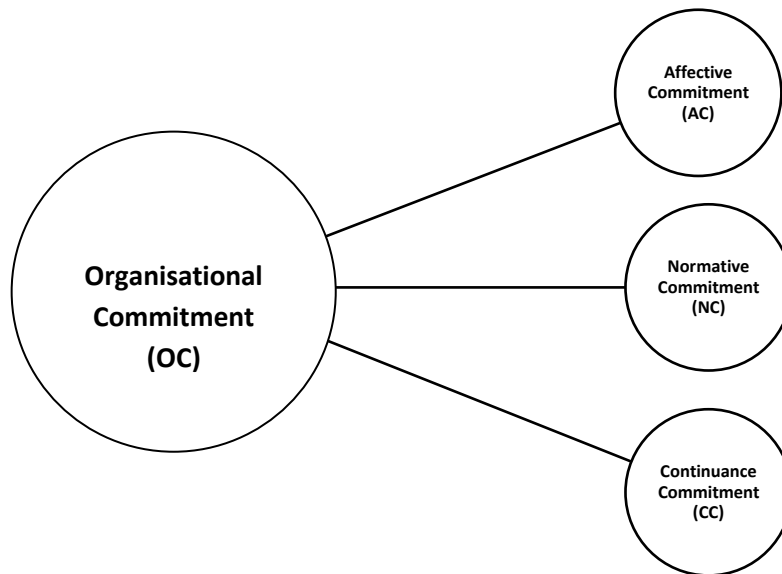


Figure 2. 11: ‘Antecedents of Organisational Commitment’ Adapted from Mowday et al., (1979)

Several researchers have confirmed that AC is actual involvement, NC is recognition and CC is the attachment of employees to organisations and that these are distinct dimensions of organisational commitment (Allen and Meyer, 1996; Karrasch, 2003; Bartlett and Kang, 2004; Greenberg, 2005; Turner and Chelladurai, 2005; Boehman, 2006; Canipe, 2006; Haque and Yamoah, 2014). Furthermore, feelings and intent indicate that employees consider organisational goals as their own goals (Haque and Yamoah, 2014). See also Buchanan (1974). Haque and Yamoah (2014) differ slightly in claiming that NC is an obligatory feeling in employees towards an *organisation*; that AC is attached to the *work*, while CC is feeling which inclines employees to stay with the same organisation.

Jans (1989) refined organisational commitment to involve employees developing feelings by valuing organisational goals by perceiving, accepting and internalizing them. An “individual considering the mission and goals of the organisation as his/ her own is reflecting affective commitment.” Dedication to an organisational goal reflects normative commitment, while continuance commitment is present in a deep desire to serve an organisation with the intent of continuity (Mowday *et al.*, 1982; Jans 1989; Hunt and Morgan, 1994; Robbins and Coulter, 2003; Haque and Yamoah, 2014).

However,, these are not the only accounts. Continuance commitment can be treated as a ‘rational choice’ cost-benefit calculation, in which staying with the same organisation is seen as a benefit, while leaving involves costs (Kanter, 1968). explained affective commitment from a value approach perspective. Later, Wiener (1982) explained normative commitment as an

internalized pressure (Wiener, 1982). In the context of the present study: (a) affective commitment is shown by university staff when they willingly accept and consider an institution's goal and values without objections; (b) normative commitment is shown by university staff in their efforts, prompt willingness to ensure that the rules, procedures and standards of the university are adhered to, and (c) university staff report continuance commitment through their intent to work for the same institution for the future.

Interestingly, distinctive types of relationship are demonstrated by the different dimensions of organisational commitment (Angle and Perry, 1981; Mathieu and Zajac, 1990; Steers, 1997; Haque and Yamaoh, 2014):

- In the banking sector, normative commitment is lower among employees, and it is evident that they have a moderately negative job satisfaction, while a positive association is found between job satisfaction and affective and normative commitment (Madi *et al.*, 2012). Furthermore, Hassan *et al.*, (2013) found that bank employees, who have appropriate organisational support, report a higher level of organisational commitment and tend to perform better, irrespective of whether the bank is a public or private institution.
- In the IT sector, it is evident that employee's performance is enhanced by non-financial rewards (Tan and Lau, 2012). Here organisational commitment and job satisfaction have a positive relationship, as both tend to be enhanced when there are non-financial rewards for employees
- In public healthcare, there is high continuance commitment and low affective and normative commitment
- In private healthcare employees have low continuance commitment but high affective and normative commitment associated with organisational support (Halepota and Irani, 2010). Additionally, organisational support is provided in the form of rewards and recognition, procedural justice, job training (Halepota and Irani, 2010).
- In hospitality job satisfaction tends to increase for all types of organisational commitment, namely: AC, NC and CC, positively associated with POS (Hemdi, 2009).
- In healthcare sector as a whole, while it is clear that POS is linked closely with AC and NC, it is highly and positively associated with CC in the private sector, yet vice versa in the public sector

It is clear, then, that sector differences exist which suggests institutional causation. However, findings for education are inconsistent:

- Steers (1977) found that commitment and attendance have a positive connection in the education sector, whereas Mathieu and Zajac (1990) found that actual performance has an insignificant or little association with commitment in the education sector. Yet Ryes and Pounder (1993) found that teachers who value organisational objectives, demonstrate a high level of organisational commitment, suggesting that that normative commitment prevails in the education sector. Malik *et al.* (2010) found that teachers in the public sector show higher continuance commitment, and that this was positively associated with job satisfaction. They also found a strong positive relationship between organisational commitment and job satisfaction. Thus, in the education sector, AC, NC and CC are evident
- In sports equipment organisations Khatibi *et al.*, (2009) found that organisational commitment is likely to be high among employees who have good health. Hence, it reflects that those employees who are free from different types of destructive stress demonstrate high organisational commitment and tend to perform better.
- POS with AC, NC and CC is evident in the various sectors (for further details, *see* Appendix F).

2.10.1.2 Dimensions of Organisational Commitment and Occupational Stress

There is a wide range of managerial literature indicating the relationship between organisational commitment and occupational stress. Different stressors are associated with psychological and organisational outcomes (Cicei, 2012) and organisational commitment is a predictor of employee's withdrawal (Glazer and Kruse, 2008), the main reasons for low organisational commitment being anxiety and depression. The intentions to stay or leave is largely predicted by organisational commitment (Cicei, 2012). Fairbrother and Warn (2003) and Cicei (2012) found that occupational stress and its effects are common at the workplace in almost all types of professions. Moreover, job stress leads to the development of negative physical and emotional responses that affect mindsets, performance and commitment (NIOSE, 1999; Cicei, 2012; Haque and Aston, 2016).

Several studies confirm that occupational stress decreases work efficiency and overall organisational performance (Chraif, 2008; Pitariu and Chraif, 2009; Pitariu *et al.*, 2009; Cicei, 2012; Haque and Aston, 2016).

To summarise, there is a vast scientific literature on occupational stress and the weight of evidence shows that organisational efficiency, commitment, functionality, performance and commitment are all affected detrimentally (Fairbrother and Warn, 2003; Chraif, 2008; Pitariu and Chraif, 2009; Pitariu *et al.*, 2009; Cicei, 2012; Haque and Aston, 2016). In the presence of anxiety, depression, tiredness, lack of motivation, stress affects emotional and psychological states in complex ways (Stranks, 2005; Cicei, 2012; and Haque and Aston, 2016). Stranks (2005) found that stress causes indecisiveness, eating too much or too little, high alcohol consumption, irritability, smoking, errors leading to accidents, poor relationships with other workers. It is clear that the physical health of the workers is affected by workplace stress including dizziness, chronic headaches, aches and muscular pain (Stranks, 2005; Cicei, 2012; Haque and Aston, 2016). Occupational stress affects workers' organisational commitment and job satisfaction (Fairbrother and Warn, 2003; Chraif and Anitei, 2011; Cicei, 2012; Haque and Aston, 2016). The relationship between occupational stress and both job satisfaction and organisational commitment is established.

Social Exchange theory posits a relationship between occupational stress and organisational commitment (Lee, 2007), as does the Casual Model framework (Lambert and Paoline, 2009 and Boyas and Wind, 2009). Wells *et al.*, (2009) found that occupational stress is negatively associated with continuance commitment. Somers (2009) found that while there is a positive relationship between occupational stress and affective commitment and normative commitment, again, there is a *negative* relationship between occupational stress and continuance commitment.

The literature is contradictory on this last point. Yaghoubi *et al.*, (2008) found that occupational stress shows no relationship with organisational commitment in all three dimensions. Yet Cicei (2012) found that occupational stress shows a moderate association with normative commitment, while it negatively affects affective and continuance commitment. Furthermore, the nature of a relationship between the variables of interest is affected by organisational culture (*ibid*), and this effect seems to be found using different models and frameworks, in different types of organisational settings.

Fields (2002) and Chraif and Stefan (2010) found that of the three types of organisational commitment, affective commitment is most correlated with job-stress. Stress-free employees are likely to have high involvement with assigned tasks and, because of good health, perform better (Fields, 2002; Chraif and Stefan, 2010). Chraif and AniGei (2011) confirmed that health and peace of mind increase performance while Cicei (2012) found that organisational

commitment depends strongly on occupational stress, as when stress rises, all three antecedents of organisational commitment tend to deteriorate, even beyond the point of control. This supports previous work by Fields (2002), and Chraif and Stefan (2010) in that of the three types of commitment, OC, is the most closely linked to occupational stress.

Absenteeism, anxiety, depression, personal and professional stress, work-family conflicts all affect AC, whilst favourable attendance and organisational citizenship behaviour positively affect AC. Haque and Aston (2016) found that CC is highly affected by occupational stress in the IT sectors of both developed and developing economies. Yet occupational stress a) affects the organisational commitment of a developing country's workforce more than in a developed country b) females have high AC and CC, and c) are less vulnerable to stress than men because of the effective use of organisational support at the workplace (Haque and Aston, 2016; Haque *et al.*, 2016; Haque and Oino, 2019).

Yet despite all of these findings, there is still no conclusive evidence from the education sector of how the varying stressors affect AC, NC and CC of teaching and non-teaching staff in contrasting economies. Chaudhry (2012) identified that there is a positive relationship between stress and job satisfaction at the universities of Pakistan, whereas Danish *et al.*, (2015) argued that organisational commitment and job satisfaction result from *organisational climate*. We know from Khan *et al.*, (2015) that stress affects organisational commitment in Pakistan. Nevertheless, these studies focused on teaching staff only.

Some literature conflicts: Jackson and Rothmann (2006) found a positive relationship between job stress and organisational commitment in the UK education sector, but Khatibi *et al.*, (2009) found the opposite. In private universities, occupational stress has a positive relationship with CC, opportunities of career development, job design, management practices and social stressors. The physical environment, however, has no relationship with stress at a workplace (Velnampy and Aravinthan, 2013). The same study found no relationship between occupational stress, AC and NC, contradicting earlier studies on occupational stress and antecedents of organisational commitment.

Since organisational commitment tends to be affected by occupational stress, employees might benefit from occupational therapy, such that employee's job-stress is managed efficiently and effectively (Haque and Aston, 2016).

While there are some differences among researchers, overall, we are confident that commitment and stress are linked with strain, perceived job stress, personal resources and, we suspect, with the presence or absence of professional occupational therapists.

2.11 Role of the occupational therapist in dealing with stress at work

Scholarly interest in stress and organisational behaviour has intensified since the mid-1980s (Costea and Crump, 1999; Stoica and Buicu, 2010). Stoica (2007) writes that stress management programmes are more prevalent too and professional occupational therapists' function as a bridge between workers and workplace Wisenthal (2004). Occupational therapists and stress management programmes offering counselling, nutrition and wellness advice, work-pressure handling skills, workplace and health safety training and advice on ergonomics and pain management as means to mitigating or avoiding stress (Watson, 2000; CAOT, 2010; Haque and Aston, 2016). Workplace stress is reduced through occupational therapy (Watson, 2000; Stoica, 2007; CAOT, 2010; Stoica and Buicu, 2010; Haque and Aston, 2016; Haque *et al.*, 2016; Haque and Oino, 2017).

From Allen and Meyer (1996) to Haque and Oino (2017) research has shown that employees with good health have a higher level of productivity and performance, demonstrating organisational commitment.

Union representatives, health and safety personnel and insurers can all act as mediators between workers and management, so that the needs of employees and employers are addressed; indeed occupational therapists can play most of these roles (Watson, 2000; CAOT, 2010; Haque and Aston, 2016), as well as a measure of quality assurance (Watson, 2000; CAOT, 2010; Haque and Aston, 2016) (for further details, *see* Appendix F).

2.12 Hofstede Cultural Dimensions

However not all cultures – within which work takes place - are the same. In cross-cultural studies, Hofstede's cultural dimension provides a framework, depicting members' values and behaviour as affected by their society's culture (Gelade, Dobson, and Auer, 2008). As we will also see there are different ways of defining culture, as something stable (as here) or as something which is itself the source of change (G-GCT).

Hofstede (2011) defines culture as the “mind's collective programming which differentiates the members of one type of category or group from others” (p. 02). Although, it is often viewed as a collective phenomenon, culture can be identified at the collective and individual levels

(Hofstede, 2011). The term culture is not limited to ethnic groups but can also be applied to social classes, generations or genders. In cultural studies of organisations have led to changes in the concept itself (ibid). Perhaps the dominant view remains that culture is something deep-rooted, for instance, an employee will acquire much of the organisational culture of the employer s/he joins, which is also a measure of the power of such cultures.

Hofstede's studies are often used to make sense of behavioural variations in people from different countries and therefore cultures (Ning, 2006; Gelade *et al.*, 2008; Afaneh *et al.*, 2014). Nevertheless, the implications of Hofstede's dimensions in terms of organisational commitment between cultures remains under-developed. And what of their practical implications? Gelade *et al.*, (2008) argued that culturally diversified workforces should conform with practices associated with whatever the wider local culture is. Yet this recommendation begs many questions as to whether and how this might be possible, particularly if 'cultures' are seen as stable and even fixed. Indeed, Bartlett and Ghoshal (2000) point out that an international organisation's assets lie partly in its regional *diversity*. From this argument we would argue that if global diversity is an asset, so is diversity within each local workforce.

Reade's argument cuts across this debate (2001) arguing that firm's ability to motivate and engage the diversified workforce is a key determinant of each firm's competitiveness, indeed that in multinational and cross-cultural contexts, the fostering of organisational commitment is a vital aspect of strategy.

Most organisational behaviour studies are Western, so there is inadequate comparative evidence on organisational commitment in any case, although Palich, Hom, and Griffeth (1995); Buchko, Weinzimmer, and Sergeyev (1998); Meyer *et al.*, (2002); and Adolšek and Štebe (2004) do tend to confirm that sources of commitment vary from nation to nation. These studies present do not concentrate particularly on how sources of commitment vary in association with cultural values.

Ning (2006) and Gelade *et al.*, (2008) did indeed research organisational commitment through cultural values, finding that its understanding can aid construction of management systems which recognise different, culturally specific sources of commitment.

One of the Hofstede's cultural dimensions is 'power distance', reflecting the level to which members of a society or organisation agree and expect power to be concentrated at the top (Ning, 2006). Mitic *et al.* (2016) found that high 'power distance' reduces employee's affective

commitment. High power distance affects normative commitment and continuance commitment among private university employees (Afaneh *et al.*, 2014). Ning (2006) found that affective commitment is lower among Chinese compared to Dutch employees and is again reduced by high power distance. However the relationship between each ‘cultural dimension’ and personal development is not straightforward, however: Schwartz (1999) found that social power at the national level (in Hofstede’s terms ‘power distance’) can have positive consequences, yet has a negative impact at the individual level. In other words, the relationship may have a positive effect at national level, but on the individual level such effect could be negative. This makes the relationship rather complex.

Fiske (2002) even doubts that it makes sense to discuss culture at the individual level, while Steele and Ones (2002) state that *personality traits* constitute meaningful constructs even at the national level.

Individualism versus collectivism is another of Hofstede’s dimensions, distinguishing individualistic societies and organisations from collectivist societies and organisations (Gelade *et al.*, 2008). A focus on individual achievement, self-interest and initiative reflect individualism, whilst a preference for teamwork, community and the public interest is a feature of collectivism. Although Afaneh *et al.*, (2014) found that individualism affects organisational commitment significantly, the authors do not explain *which* dimension of organisational commitment is affected positively and negatively. Gelade, Dobson and Gilbert (2006) did not find that affective commitment was especially associated with collectivist values. Indeed, Ning (2006) found that the commitment of Chinese and Dutch employees does not vary significantly, despite evidence that Chinese culture is collectivist while Dutch culture is individualistic. It therefore remains unclear how and whether individualism and collectivism affect commitment.

Meanwhile Gelade *et al.*, (2008) found that in an individualistic culture ‘job characteristics’ matter more as it is the job that leads to or erodes satisfaction and that its effect on job is less in a collectivist culture (Gelade *et al.*, 2008).

According to Hofstede (2001), “masculine and feminine are the degree to which differentiation is made between the social gender roles... in masculine societies, men are tough, assertive [with a] primarily focus on material success, while [feminine societies]...exhibit a concern with the quality of life. [In] feminine societies ...both men and women [are viewed] as tender, modest and concerned with the quality of life” (p. 297).

Afaneh *et al.*, (2014) found a positive linkage between masculinity and organisational commitment, but when Ning (2006) compared Chinese and Dutch employees in order to measure the impact of masculinity on organisational commitment, it was found that masculinity affects overall affective commitment *negatively*. Interestingly, in masculine cultures, a higher value is placed on job attributes which reflects in commitment (Gelade *et al.*, 2008). In other words, the application of Hofstede to commitment answers some questions but creates many new ones, and especially, Why?

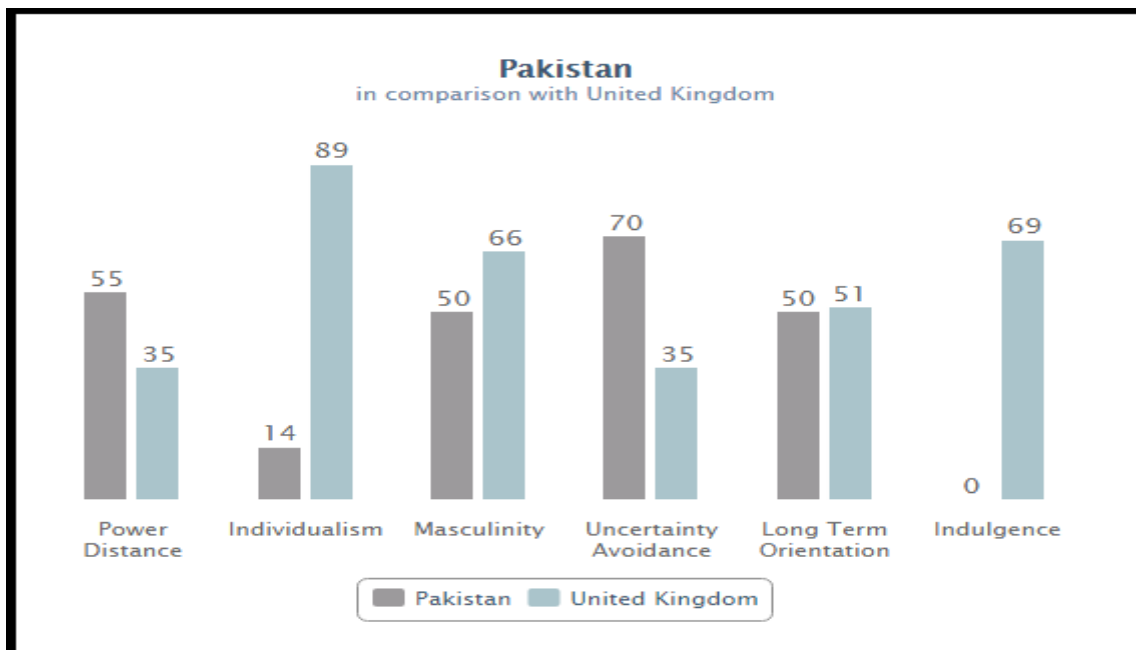


Figure 2. 12: Comparison of Pakistan and UK (geert-hofstede.com, 2017)

Again, based on Hofstede Pakistan has a higher level of ‘power distance’ than the UK (55 against 35 on the same scale). In other words, a preference for ‘power distance’ is low in the UK, while it is relatively high in Pakistan. Pakistan scores lower in ‘individualism’ than the UK (14 against 89), thus Pakistan is more collectivist than the UK. Thus, in Pakistan, we find higher long-term and close commitment to collectivities such as groups and organisation than in the UK. Turning to another of Hofstede’s dimensions already introduced, Masculinity. When compared to Pakistan, the UK scores *high* (50 against 66).

These comparisons beg the question as to what effects these different cultural preferences might have on our variables of interest, which are explored properly only by cross-cultural comparative studies, of which there are few in our specific field.

2.13 Gaps in Literature

The literature available consist in mostly single dimension studies restricted to particular economies and societies and although industry differences have been found (suggesting perhaps that industries have cultures and thefore different worker preferences) we have too few international comparisons. It is the comparative studies that interest us especially, because they are typically more informative and lead to fresh questions, which is the essence of scientific progress. Indeed, the more comparisons the better: different occupational groups, different levels of seniority, gender differences, levels of national development and of course, different cultures. Of course, the inclusion of too many variables in a study of a given sample size prevents researchers from making confident generalisations and in recognition of this we have limited our study to the HE sector, while including as many variables as practical. These trade-offs are, as we would argue, pragmatic.

The role of the occupational therapist is a well-established branch of research in developed economies (Stoica, 2010) and we are also minded to address the lack of evidence concerning the effects of occupational therapy on our variables of interest, specifically in the East, more specifically South Asia compared with the UK. We notice also that the DRIVE model, which is relatively comprehensive, had not been used for our purposes, though it has been applied successfully to the IT sector.

It is now known that gender has effects on the way stress affects organisational commitment, but again, not so conclusively for the HE sector. It is likely that stress, commitment, the stressors themselves and their impacts, vary bt gender, from individual to individual, sector to sector and, given cultural differences, also from country to country. Again, we have little research on the effectiveness of support programmes in terms of gender, faculty and economy/culture.

Since Hofstede has established that culture varies from the East to the West, we wish to examine how the variables of interest function in different cultures, using the DRIVE model for this novel purpose. It is DRIVE which brings all the variables of interest together, though grouped simply.

We trust that practical interventions will be suggested by our study, contributing towards establishing global standards required of educational institutions in order to sustain human capital through organisational commitment and reduction of stress.

There is enough cultural theory and institutional theory (Aldrich, 1994; Suchman, 1995; Peng and Heath, 1996; Dacin, 1997; Lawrence, Winn, and Jennings, 2001; Sherer and Lee 2002; Aten and Howard-Grenville, 2012; Zilber, 2012; Palthe, 2014; Ozeren and Aydin, 2016) to suggest institutional effects on our variables. Indeed Ozeren and Aydin (2016) used institutional theory to compare the treatment of minorities in organisations in Turkey and the United Kingdom (UK), taking a similar comparative approach to ours, by paying attention to systems and supports in the education sector and how these affect organisational commitment.

2.14 Hypotheses

Based on the identified ‘gaps’ in the literature review, the conceptual framework was designed and the following hypotheses were developed for this study:

Hoa: *The causes of stress do not vary significantly for the different genders of teaching and non-teaching faculty at UK and Pakistan’s public universities.*

Hoa': *The causes of stress vary significantly for the different genders of teaching and non-teaching faculty at UK and Pakistan’s public universities.*

Hob: *The effects of stress do not vary significantly for the different genders of teaching and non-teaching faculty at UK and Pakistan’s public universities.*

Hob': *The effects of stress vary significantly for the different genders of teaching and non-teaching faculty at UK and Pakistan’s public universities.*

Hoc: *There is no significant impact of the role of the occupational therapist, social support programme, personal strain, personal resources and perceived job stress in relation to occupational stress and organisational commitment amongst the different genders of teaching and non-teaching faculty of UK and Pakistan’s public universities.*

Hoc': *There is a significant impact of the role of occupational therapist, social support programme, personal strain, personal resources and perceived job stress in relation to occupational stress and organisational commitment amongst the different genders of teaching and non-teaching faculty at UK and Pakistan’s public universities.*

2.15 Summary

In this chapter, a wide range of literature has been evaluated. From the GAS model to the DRIVE model, it is confirmed that health and wellbeing are vital for organisational effectiveness, though personal resources and the ability to cope with stress varies from person

to person. There is also evidence from the literature to report that no two employees will show the same type of consequences of stress in similar situations, perhaps because of how each read and therefore experiences a given situation. Stress is affected by 'internal' qualities as well as by 'objective' mismatches between demands and resources.

The literature also shows that organisational commitment varies not only by gender but also among the types of employees and industry sectors. Social support and organisational support systems are not drawn on equally by different categories of employees, in all sectors and different economies.

The literature has indicated that a little stress may be favourable. Chronic stress, however, can be destructive for an employee's well-being, health, performance and organisational efficiencies, though the findings from the education sector are inconsistent.

CHAPTER THREE: CONCEPTUAL FRAMEWORK

3.1 Introduction

This conceptual framework is an outcome of our literature review. The independent, dependent and other vital variables in question are identified, separately and clearly identified, thus:

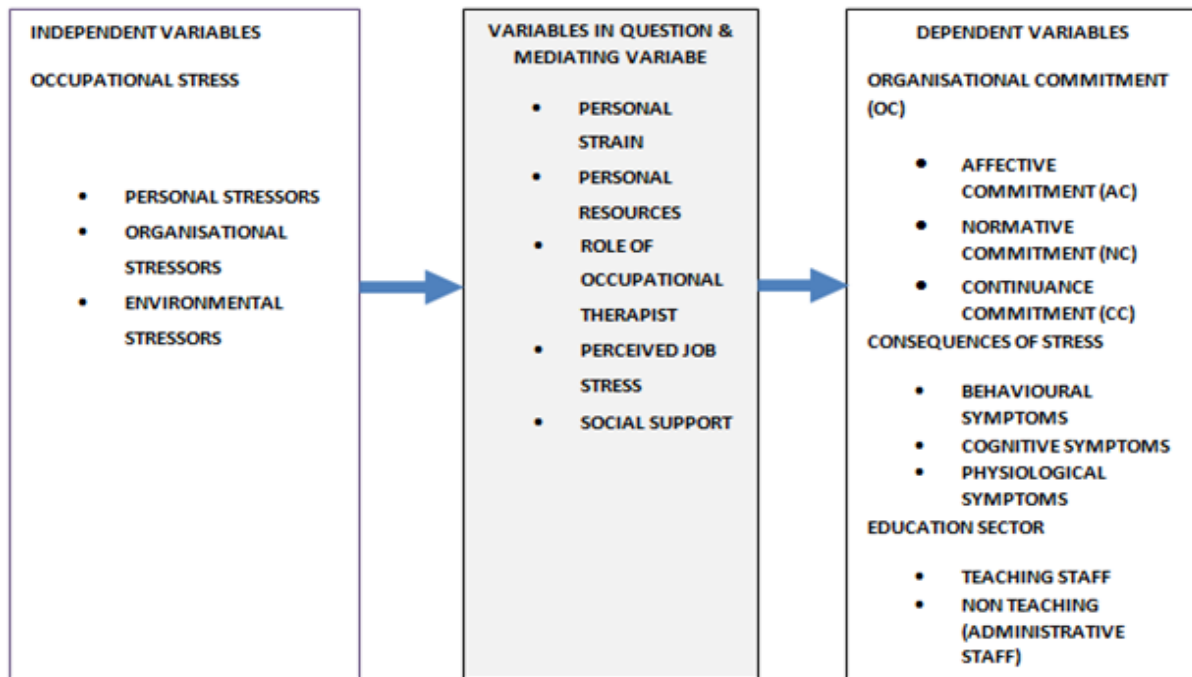


Figure 3.1: The author's framework for the variables of interest

3.2 Variables of interest

In this figure, the 'independent variables' are on the left-hand side. Here 'occupational stress' is the main independent variable. Following Stranks (2005), this study also specifies three types of stressor which cause occupational stress:

- personal stressors (personality, family problems and financial problems)
- organisational stressors (task demand, role demand, life cycle of the organisation, organisational leadership, interpersonal demand and organisational structure)
- environmental stressors (political uncertainty, technological uncertainty and economic uncertainty)

On the right-hand side, ‘dependent variables’ are listed. The main dependent variable is ‘organisational commitment’. The impact of stress, however, is not measured by overall organisational commitment alone but also by its individual dimensions:

- affective commitment
- normative commitment
- continuance commitment

The consequences of occupational stress are treated as dependent variables. We follow Stranks (2005), by considering the effects of occupational stress in the form of:

- cognitive symptoms
- behavioural symptoms
- physiological symptoms

Our supposed inter-linkages supposed between the independent and dependent variables are listed in the middle column of figure 3.1

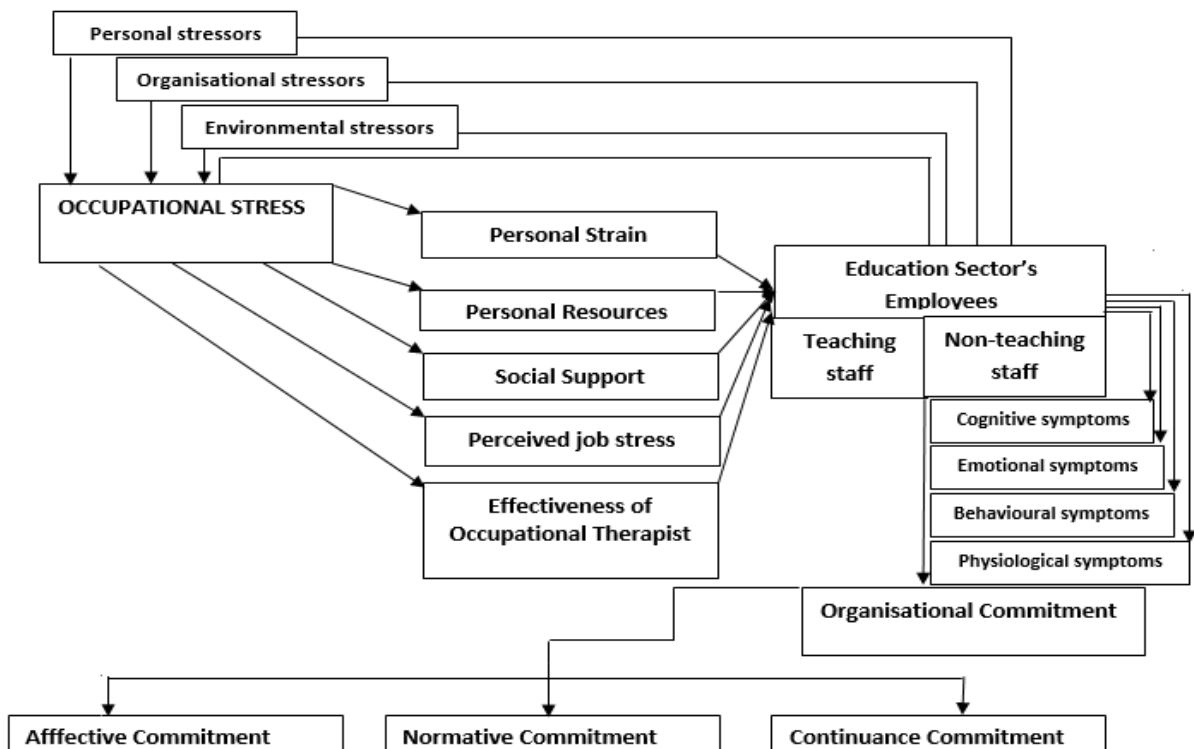


Figure 3. 2: The author’s conceptual framework for the present study.

3.3 Grid-Group Cultural (GGC) theory and comparative approach

	Group		
		Weak bonds between people	Strong bonds between people
Grid	Many and varied interpersonal differences	FATALISM	COLLECTIVISM
	Significant similarity between people	INDIVIDUALISM	EGALITARIANISM

Figure 3. 3: Source - G-GCT (Wildavsky, 2017).

Grid-Group Cultural (GGC) Theory is included here as a post-script, partly because it has not featured in the stress and commitment literature and partly because it offers a fresh way of looking at all the foregoing studies, by treating them as *cultural phenomena*. We promised to return to G-GCT earlier, but now we are in a position to explain not only that stress responses may be cultural but also that stress theories rely on conflicting rationalities that each have identifiable cultural origins.

To explain: G-GCT was developed by anthropologists Michael Thompson, Stever Rayner, and Mary Douglas with the contributions from the political scientists Richard Ellis, Aaron Wildavsky and others. According to Wildavsky (2017), the primary motive of designing this model is to understand how modern society reacts to its own native rituals and practices. This model can be used in any country or company to understand actions within them, one of which could be variations in stress and commitment levels. The model suggests understanding one's own culture first, then using the same model to understand other cultures. This may assist in avoiding social conflicts once the equal but conflicting reasonableness of other ways of thinking are understood.

<p>Fatalism</p> <p>Also known as: Isolate Style: Apathy, avoidance Nature as: Capricious, uncertain Risk view: Danger, no gain Key: Power imbalance Cultural hero: none Leadership: Despotic Manage needs? : No Manage resources? : No</p>	<p>Collectivism</p> <p>Also known as: Positional, Hierarchical Style: Hierarchy Nature as: Robust, to a point Risk view: Managed Key: Obedience Cultural hero: Bureaucrat Leadership: Positional Manage needs? : No Manage resources? : Yes</p>
<p>Individualism</p> <p>Also known as: Markets Style: Competition, Laissez faire, pragmatic materialism Nature as: Benign, robust Risk view: Opportunity Key: Self-regulation Cultural hero: Pioneer Leadership: Meteoric Manage needs? : Yes Manage resources? : Yes</p>	<p>Egalitarianism</p> <p>Also known as: Enclave, Communitarian, Sectarianism Style: Equality, commune Nature as: Ephemeral, fragile Risk view: Delicate balance Key: Integrity Cultural hero: Holy person Leadership: Charismatic Manage needs? : Yes Manage resources? : No</p>

Figure 3. 4: Source - Features of G-GCT (Wildavsky, 2017).

According to Berger (2016), the Grid Group Cultural Theory is formed by two dimensions, *Group* and *Grid*. The Group dimension describes social solidarity (ranging from Weak to Strong), that is, the extent to which actors' lives are constrained by their membership(s) and influenced by the collective. On the right-hand side of Fig. 3.4, actors accept and even welcome group constraints on their behavior by the fact of their belonging to a collectivity. Groups can demand attention and may require full attention and *intense* commitment.

Meanwhile, the Grid (or Social Regulation) dimension recognises variations in the amount of control present, here shown as the vertical axis with high Social Regulation at the top and Weak Social Regulation at the bottom. According to Ripberger, Swedlow, Silva and Jenkins-Smith (2015), by cross-tabulating Grid and Group we can derive four 'ways of thinking', namely *Fatalism*, *Collectivism*, *Individualism* and *Egalitarianism*. Each of these is equally rational, yet they are concerned with different problems, have different solutions to them and are thus mutually conflicting.

Fatalist reasoning (High Grid/ Low Group) has it that actors (at the individual or larger scale) have little obligation to others (there is weak bonding), leading to an apathetic disposition towards big issues (such as climate change) and instead a preoccupation with survival. This

might lead to despotic leadership fixated on the actor's short-term survival. This way of thinking has the lowest 'risk appetite' and we suspect *the highest sensitivity to stress*.

Hierarchical (High Grid/ High Group) prevails when actors are strongly connected to each other while also surrendering willingly to Social Regulation. Here it is reasonable to accept bureaucratic authority in the belief that obedience to rules is the key to minimising deviance (deviance being the main preoccupation). Actors believe they occupy a robust environment. It would follow that they are only stressed moderately, by say, uncertainty.

With equal but again different reasoning Individualistic rationality recognises, accepts and even welcomes differences. With weak Social Solidarity and weak Social Regulation there is no imperative that actors should be similar. This reasoning animates sporting competitors or competitors operating in the same market. Individualist reasoning can be summarised by the principle 'I don't care about you. I will do things my way. Competition will show which of us is right.' This position fosters the highest risk appetite and the view that nature is robust. It follows that a high-risk appetite would also tolerate stressors rather better than Fatalist reasoning does.

Under strong Social Solidarity and weak Social Regulation, Egalitarian reasoning prioritises mutual support and inspires very great, enthusiastic collective voluntary effort. Here the concern is not with (Fatalistic) *Survival*, (Hierarchical) *Obedience* or (Individualistic) *Competition*, but with changing the system so that everybody benefits, often with enormous sacrifice made in pursuit of the greater good.

It is an important feature of G-GCT that because each of these equally reasonable disposition conflict with each other, there is no equilibrium point. It is for this reason that history happens but not in any direction that is easy to forecast. G-GCT is not predictive of which rationality will grow in strength next, but it does explain why a particular rationality will animate a particular type of action:

Each way of thinking is capable of finding a solution to its own view of what the problem is, but it is not capable of solving the different preoccupations of the other ways of thinking. Some degree of cultural continuity is maintained by *institutions* (such as Hierarchical *bureaucracies* and *rule-books*, Egalitarian/ Collectivist *sects*, *social movements* and *religions*, the Fatalistic

‘bunker mentality’ and Individualistic *competition* in many forms types. An ‘institution’ can be something as small as a proverb or a rule-of-thumb and as large as a multinational treaty.

According to its proponents, G-GCT fits with what we see: unexpected changes in ‘risk seasons’ when existing arrangements give way to rapid change, because the previously prevailing way of thinking and acting cannot solve new emerging problems (surprises), which another way of thinking can solve more easily. For example:

- Individualistic competition causes environmental degradation which Hierarchical and Egalitarian ways of thinking can solve much more easily
- Egalitarian social movements can accomplish great changes. But because it mistrusts rules and regulations it is vulnerable to disorganisation because this form of reasoning is suspicious of Hierarchical leadership. Crises occur when a charismatic leader – the only form of leadership acceptable to Egalitarian reasoning – dies and no equally charismatic replacement can be found
- Hierarchical reasoning also contains the seeds of its own destruction because by creating more and more rules and regulations, more and more deviants are *created*. In other words, the usefulness of bureaucracy reaches the ‘point of diminishing returns’ and institutions become cumbersome, unresponsive and ‘not fit for purpose’

The question arises as to what G-GCT can contribute to understanding both the two countries which we are comparing and the various theories introduced in the literature review.

According to prevailing research, which is mostly not guided by G-GCT, UK and Pakistan have significantly different cultures. It is accepted widely that there exist differences in ‘social environments’ which affect individual beliefs and influence individual choices. As we have already identified, Pakistan exhibits collectivist social support, whereas the UK is by comparison more Individualistic in its reasoning.

The central question arising from the Grip-Group Cultural Theory is the relation between feelings, values and actions and different degrees of solidarity and regulation. Even when ideas are institutionalized in rules, institutions are dependent for their life on the availability and practical viability of ideas. The G-GCT relies on the basic assumption that it is because we are social that our diverse feelings, thoughts and actions are possible. While institutions can

sustain thoughts for a period, the failure of institutions to solve blatant problems will eventually awaken opposing forms of reasoning which challenge the status quo.

However, there is a radically different, indeed dominant approach to understanding behaviour represented by ‘rational choice theory’. It begins not with collectivities but with individual agents, though an ‘agent’ can be a person or a firm. The root assumption of rational choice theory is that agents are rational in their ‘utility-seeking’ behaviour. In this view which is especially popular in economics, and is even the central principle in economics, agents make means-ends calculations (it is in this sense that they are ‘rational’), and base their choices as to which means have the highest probability of enabling them to attain their preferred ends at least cost to them. If society exists, it is created bottom-up as an outcome of many rational choices. Allingham (2002) argued that, rational choice theory focuses on accumulated social behaviour resulting from the individual actor’s choices and that these choices are pre-social. Agents make up their own preferences and making their own decision.

G-GCT and rational choice theories are not just different approaches (Chai, 1997), they are polar opposites. For this reason, it is difficult to accept the claim that “rational choice theory contributes by incorporating cultural findings into the rational calculation of actors” (Tsebelis, 1997; p. 18). This is because rational choice theory makes the assumption that agency exists in each agent and *not* in any larger collectivity. As we have stated, rational choice theory claims that the social is an accumulation of trillions of ‘revealed preferences’ made by billions of pre-social agents. It is a cliché of rational choice theorists that ‘there is no such thing as society’. Thus, according to Tsebelis (1997) “Explanation by culture may be trivial” (p. 16).

However, theories, indeed all theories, rational choice theory included, may be treated as cultural creations (cultural artefacts). The question arises, what form of cultural reasoning do rational choice theorists use and how does it differ from the reasoning that lies behind other theories with which we might compare it?

Grid-Group Cultural Theory is valuable because it supplies an answer to this question. It argues that rational choice theory employs the individualistic rationality or ‘thought style’. This way of thinking is only one of four equally rational but conflicting positions, in this case reasoning enabled by ‘Low Social Regulation’ and ‘Low Social Solidarity’.

Because social scientists are cultural subjects, it is not surprising that the questions they pose and the theories they generate reflect these different ways of thinking, different preoccupations and therefore it is unsurprising that theorists disagree.

Differential cultural aspects between UK and Pakistan

With regard to Pakistan, elements of both Fatalism and Hierarchy enter into the reasoning behind male domination of women. Although Pakistani culture is ‘feminine’ in Hofstede’s terms, men may see it as their ‘duty’ to stand in a position of authority (domination) ‘above’ women. Indeed, women and men may reason that their relative positions of power and powerlessness are constrained by unchangeable differences attributable to their natures. The Hierarchical aspect of such reasoning is quite clear. The Fatalistic component – which some women may share – is that ‘there’s no point trying to change things as it would be unrealistic/better instead to conform and therefore survive’.

These beliefs which of course G-GCT treats as cultural rather than natural, are *institutionalised* strongly in Pakistan and *institutionalised* much more weakly in the UK where the same views also used to be prevalent until quite recently. However, institutional difference means that in the UK, after many decades of Egalitarian struggle for equality, different thoughts are institutionalised by the Equality Act of 2010. Additionally, it is clear the imperatives of “individualism” are more prevalent in the United Kingdom in comparison to Pakistan (Chai et al. 2009; Baskerville, 2018). Though institutions do not survive the crises which they cannot solve, the importance of institutions is not to be under-rated. As Mary Douglas wrote, ‘institutions think’ much as individuals think.

The alternative idea that diverse individuals just happen to have the different preferences which they hold – a proposition common in economics and psychology – struggles to explain:

- why the population of Pakistan, on the average, feels thinks and behaves in some ways *differently* to the way the British population feels, thinks and acts
- why *changes* in feelings, thoughts and action take place in both countries over time

If individual preferences were the creation of pre-social agents, then it would also be difficult to explain why Fatalistic, Hierarchical, Egalitarian and Individualistic thoughts *do* occur in *both* countries. The struggle for an independent Pakistan, separate from India was an Egalitarian, collective struggle much as Britain’s defeat of Nazi Germany was a collective Egalitarian struggle.

G-GCT argues that it is through membership of society that the feelings, thoughts and actions of individuals are possible and given the different ways in which the four ways of thinking have played-out in the two countries (and differences in the ways they have been institutionalised), it is unsurprising that at any one moment there are differences between the prevailing thinking in either country. Indeed, there are contrasts (Baskerville, 2018).

Nevertheless Egalitarian “collectivism” is present in both the United Kingdom and Pakistan by degrees in as far as the amicable social relationships exist between individuals and a preference for civility will often be prioritised over the immediate interests of a person at the individual level (Chai et al. 2009; Baskerville, 2018).

Collectivist forms of reasoning (Both Hierarchical and Egalitarian) mean that common objectives are still upheld despite certain disagreements. However, in Pakistan collectivism takes a noticeably more Hierarchical ie. coercive form (Mamadouh, 1999), not so prevalent in the United Kingdom (Baskerville, 2018). Our observation is that the following similarities and distinctions are worth making:

- Hierarchical and Egalitarian reasoning share the conviction that Social Solidarity matters but disagree about whether existing Rules are necessary or harmful to the collectivity
- Fatalism and Egalitarianism are doubly contrary to each other disagreeing both about whether or not anybody should have any care for anybody else *and* disagreeing about whether the existing order can be changed (see also Batool and de Visser, 2016)
- Hierarchy and Individualism are also doubly-opposed. To Hierarchical reasoning Individualistic feelings, thoughts and actions are reckless, very risky and show too little regard for the welfare of others. To Individualistic reasoning Hierarchy stands for suffocating rules, preventing the free-play of individual creativity and innovation
- Fatalistic and Individualistic reasoning *share* the thought that ‘other people don’t matter as much as I do’ (Social Solidarity is weak in both cases). But Individual reasoning is antagonised by what appears to it as the undue pessimism, caution and fear associated with Fatalistic reasoning. For its part, Fatalistic reasoning is disturbed by what seems to it to be the very high and avoidable risks associated with Individualism

- Hierarchical and Fatalistic forms of reasoning both agree that like it or not ‘the rules are here to stay’, but they disagree as to whether or not others should matter. Hierarchical reasoning has it that others matter. Fatalistic reasoning has it that it is the self that matters above all others

It is worth emphasising again that according to G-GCT, it is these mutual antagonisms which help each way of thinking form its own contrary convictions. In other words, the clarity of our feelings, thoughts and actions takes shape as we are confronted by the very different feelings, thoughts and actions of the other ‘thought-styles’. Furthermore, it is the practical failings of any given preferred way of thinking which leads actors to change their minds. G-GCT is also good at explaining why actors can hold contradictory ideas at the same time, known as ‘poly-rational’ or ‘clumsy’ thinking.

Switching now to the national scale it is worth asking what, given their prevailing differences in thinking, Pakistan and the UK can learn from each other. It follows from G-GCT that the United Kingdom has something to teach Pakistan as far as the promotion of harmonious social relationships is concerned (Batool and de Visser, 2016). To many but not all(!) British eyes, the empowerment of Pakistani women would seem to be imperative. The institutionalised dominance of Islam would be troubling as would the low welfare of minority groups, most notably non-Muslims (Batool and de Visser, 2016). Although we emphasise that recognition of Lesbian-, Gay-, Bisexual and Transgender (LGBT) rights and LGBT inclusion into mainstream society in Britain is *recent*, now that these rights have also become institutionalised, then the development of similar rights in Pakistan would seem a pressing matter.

Meanwhile from the point of view of Pakistan, Britain has much to learn and much to gain from, say, the solidarity of ‘three generation households’ and the insurance they bring against many misfortunes such as ill-health, sporadic unemployment, the failure of small- and micro-businesses owned and run by different members of an extended family and against the mental illnesses associated with loneliness.

Or point? All solutions succeed and all solutions fail in different circumstances, but the failings are more obvious to *other ways of thinking* than they are to those who still believe passionately

in the rightness and reasonableness of their preferred solutions. Moreover, the practical value of alternative solutions becomes clearer when protagonists are brought into dialogue with each other, no matter how uncomfortable and disturbing this will be.

It is not within the resources of the author to bring ‘Pakistan’ and ‘the UK’ into an international dialogue. However, G-GCT enables us to clarify what that dialogue might look like. We can see the reasonableness of efforts to promote Egalitarianism in Pakistan and especially, to confront and prevent the Fatalism prevailing in Pakistan to a considerable extent.

Through participant-observation in both countries we, along with several observers, note that collectivism is preferred over individualism in Pakistan which is not the situation in the United Kingdom (Mamadouh, 1999; Chai et al. 2009; Batool and de Visser, 2016; Guiso, Herrera and Morelli, 2016; Baskerville, 2018). These are mixed blessings. One result is that the ideas and thoughts of individuals are valued greatly along with creativity in the United Kingdom. We observe that the particular interests and passions of individuals form more easily into groups in the UK, that is cohesion without coercion. Meanwhile in Pakistan coercion is relied on to a greater extent to attain cohesion (Guiso et al., 2016). Notice too that as the ‘risk environment’ differs between the two states, then different types of solution are only reasonable and to be expected.

The value of G-GCT to this thesis is that it sensitises us to cultural differences between the United Kingdom and Pakistan while also showing why one set of institutionalised cultural preferences makes sense in one region and a different set makes sense in another region and in different circumstances. It is to be emphasised that G-GCT does *not* state that any particular way of thinking is better or worse than another, but it does clarify how each form of reasoning is derived culturally (socially), what it pays attention to, the means used (Rules, Collective Struggles, Market Competition, Bunker Mentality) and why culture never sleeps. G-GCT is thus descriptive and explanatory, but as we have stated, G-GCT is not predictive. It states that feelings, thoughts and actions will change despite institutional attempts to preserve existing feelings, thoughts and actions... but G-GCT cannot state in what direction these will move.

Most of the existing literature on culture is descriptive but less explanatory than G-GCT. From reading the majority of authors, we get the impression that ‘national cultures’ are either fixed or very slow to change and yet Brexit and the election of President Trump are examples of big

shifts in opinion that most commentators not only failed to foresee but also struggle to explain, but which G-GCT explains easily (as shifts from one rationality to another in the light of specific failings in the status quo). It has also been valuable to present and reflect on the differences and similarities between different authors's observations and this author's personal observations in order to clarify gaps in the research.

G-GCT is valuable in addressing diversity management, because it explains diversity and differences as reasonable and it lays out the dimensions upon which diverse and conflicting opinions and practices exist (Strong and Weak Social Regulation, Strong and Weak Social Solidarity). The fostering of amicable relationships – perhaps the central idea in 'diversity management' – shows some similarity with G-GCT (Maleki and Hendriks, 2015) insofar as G-GCT promotes solution-finding through creative disagreements.

The concept of cross-cultural management (Chai, 2018) can be informed by the G-GCT proposition that 'the culture' of the other may be different but just as rational and reasonable as one's own. No 'thought style' is unreasonable but 'cultural gaps' (differences between thought styles) can be identified with precision by the virtue of the G-GCT, for example Fatalism in Pakistan and Individualism in the UK. G-GCT also enables the virtues of each rationality to be made clear; for example, Fatalism can protect actors against taking unnecessary risks and investing in doomed projects.

The scope for inter-cultural understanding is served by GGC Theory: although there are cultural differences at any one time, each of the four rationalities (also known as 'cultural biases', 'thought styles' and 'ways of life') will have been present to varying degrees and at different times anywhere. The simplicity and efficiency of G-GCT, requiring only two dimensions to account for all variation, is striking. It also explains the reasonable apprehensions which actors will have about each other. Furthermore, the G-GCT also helps in identifying steps and measures to be undertaken for particular improvements to be made, as each rationality has something different yet also valuable to offer in relation to specific issues (Lockhart, 2018). For example, fatalism and egalitarianism address different difficulties. Fatalism counters high risk exuberance, egalitarianism answers existential threats to all and inequality; Hierarchy counters deviance and Individualism any lack of competitiveness and creativity. However, each rationality, if carried to extreme has disastrous consequences. Egalitarianism can result in 'communal violence' resulting in many deaths; fatalism results in desperate warlordism, Hierarchy in rule-bound bureaucratic paralysis and Individualism in severe environmental

degradation and species loss. The energies of social movements can accomplish much but can run out of control, for example through civil wars and sectarianism.

Additionally, GGCT specifies different understandings of ‘interests’: Hierarchy, a collective interest in Order; Egalitarianism a collective interest in transformation; Individualism the pluralistic aims and objectives of each individual actor and Fatalism the absolute priority given to the actor’s survival by whatever means necessary, including silence and complicity. The two Low Grid positions reason that neither individuals or groups should be constrained or forced according to Rules (Hood, 2016), while the High Grid positions accept Rules willingly (as all to the good) or unwillingly (as something which it is not in the power of the actor to change).

G-GCT is useful in that it can sensitise different actors to the reasonableness of conflicting opinions and increase sensitivities to different forms of risk, by offering different readings of any situation in question. The fostering of amicable and creative disagreement amongst actors thereby leading to the formation of the different kinds of hybrid solutions is one of the key promises of Theory. It offers insights into prejudicial differences (shifting ‘cultural biases’ which we all experience).

Viewed through G-GCT, multiculturalism is an interesting ‘hybrid’ (aka ‘clumsy’) solution to differences. It is Fatalistic in that it accepts that religious and other institutionalized differences are long-lasting and will not change even in the medium or long term. It is Hierarchical in that multi-culturalism usually has *rules*...a legal basis in laws which establish and protect, for example religious practices, proscriptions in relation to meat eating and multi-lingualism. It is Egalitarian in that it treats different cultures as having equal value. The only form of reasoning not employed especially is Individualism, as individual differences and ‘identities’ do not feature as much as collective ‘identities’ do. Although Fatalism is anything but ‘inclusive’, when combined with other forms of reasoning both inclusiveness and differences are treated as legitimate and even welcome in the interests of overall ‘social cohesion’.

Racism, a potentially violent outcome of Egalitarian-Enclave reasoning (‘us and them’) is vehemently opposed under multi-culturalism with *the same form of reasoning* transformed into the emancipation and upliftment of people belonging to minority groups, castes and classes respectively (for a discussion see van der Linden, 2016). Although *order* is the first concern of Hierarchical reasoning, by involving three forms of reasoning, multi-culturalism promotes orderliness via egalitarianism cohesiveness and tolerance amongst all groups.

Each form of rationality also brings different models of justice into play. Hierarchy stresses procedural justice, Egalitarian reasoning, social justice, Individual, the idea that winnings belong to winners, and Fatalism the right of the actor to reasonable self-defence. 'Natural justice', the principle that one should not act with bias, but allow 'fair hearings' is also, we suggest polyrational. Egalitarian equity and fairness are invoked and legal judgements are voided if a fair hearing cannot be demonstrated and this would apply within organisations' HR policies as they apply to, say, disciplinary proceedings and redundancies. The principles of natural justice will be stipulated and encoded in advance in the form of *set procedures*, (ie Hierarchically) in order to minimize future risks of miscarriages of justice and unfair management and distribution of resources.

Thus, *institutions* can be understood and reformed deliberately using the insights of G-GCT to enhance their overall functioning in ways that satisfy the competing demands of the conflicting rationalities. G-GCT asserts that hierarchical has a place in terms of the systematic management of the resources (control, monitoring) accomplishing collective cohesion in what can be a very complex 'division of labour' into specialist activities. More nearly Egalitarian 'semi-autonomous group working' institutionalizes co-operation without any hassles or obstacles, within a wider legal framework which specifies what the group can decide for itself. Semi-autonomous work groups can experience strong solidarity and mutual support, effectively policing themselves efficiently.

G-GCT makes sense of why semi-autonomous work groups are as hard working and reliable as they are often found to be, even and perhaps because of their presence within a larger hierarchy which thinks differently.

Here is a route to the easing or elimination of the restrictions, the moderation of 'cultural differences' within teams, the removal of the effects of dogmas and inter-cultural wariness and mistrust. Here group solidarity may dissolve the differences within it.

However, it is also observed with the help of Grid-Group Cultural analysis that rituals and traditions are institutional means for sustaining rationalities over long periods in spite of and even because of the galvanizing effects on opinion created by other ways of thinking. The understanding of how different institutions sustain conflicting ways of life (rationalities) can go a long way towards understanding cultural differences at any scale including long-term country differences.

Thus, after identifying the variables of interest, and the dynamics which Grid and Group give rise to, this study uses institutional theory to examine variables in a more detailed manner. Interestingly, there are few examples available of studies that consider the role of institutional process transformation and professional associations (Greenwood, Suddaby and Hinings, 2002). Ozeren and Aydin (2016) argued that through comparative analysis it is possible to scrutinize and understand the prevailing agendas in different locations. A similar approach is taken in the present study to examine the variables of interest.

However, the relationship between occupational stress and organisational commitment through organisational performance and effectiveness has yet to be evaluated using G-GCT. Yet, through G-GCT we can hypothesise the role of the occupational therapist is likely to differ in contrasting economies because the state of play between the four rationalities is unlikely to be the same in both countries. In general, G-GCT has not been used as a theory of organisational commitment (though collective commitment makes sense in both the Egalitarian and Hierarchical positions). But it has been used to identify similarities and difference within an organisation (Palthe, 2014) and it is easy to see that intriguing differences and similarities exist in the Pakistani and the UK education sectors, despite and because of supposed 'cultural differences' between and within the two nations.

Despite higher spending in the UK, the contribution of the UK's education sector to GDP is estimated to be 2.8%, while government spending on it is 11% (UKPS Framework, 2016). On the other hand, the Pakistani government spends less than 2.6%, on education, but the economic contribution of the higher education sector is 3.6% (Ministry of Education Pakistan, 2015). There are similarities and contrasts in the relationship between variables of interest from the two selected countries' education sectors, to be explored.

Geographical aptitude is defined as the natural and operational tendencies in the physical and geographic region (Ramzan, 2015). There is a similarity in the Pakistan and UK's geographical aptitude results, considering the education sector (69.6 against 66.6) (Saeed, 2007; Ramzan, 2015). In both Pakistan and the UK, the minimum duration for a PhD and routes to the award of MPhil in a relevant discipline are equal (three years). Interestingly, the gap in comparative performance regarding gender (males and females) is similar in both Pakistan and the UK (Ramzan, 2015). Moreover, at all levels of education in both countries, similar summative and formative assessment styles are used (Saeed, 2007; Ramazan, 2015).

The UK appears to have developed a more structured (formalized, Hierarchical) approach than Pakistan which Pakistan now seems to be adopting (Ramazan, 2015). Interestingly, the gap between the education systems of the two countries has reduced with recent changes and the adoption of defined minimum standards which could be interpreted as Hierarchical in their reasoning. With new reforms, the structured mentoring of teachers has started in Pakistan, which again is similar to the UK's approach. Despite having institutional similarities, one is an emerging economy (Pakistan), while other is a developed economy (UK). This is a striking point because it suggests that the linkage between economy and culture may be surprisingly weak.

Application of G-GCT is also appropriate to understanding the contextual dynamics of nominally the same phenomena – occupational stress and occupational commitment - in contrasting economies. This study undertakes a similar approach to Chai et al., (2009) by examining these phenomena comparatively. In this way the effects of institutions should be evident while we can also examine the relationship between variables in the context of cultural differences. Having introduced G-GCT and why a comparative approach might be fruitful, we must now describe what might be considered as 'stressors' in the workplace. Bear in mind that sensitivity to risk may vary with each of the rationalities described above, thus actors will vary in their reactions according to how risk averse they are, with Fatalistic reasoning bringing high risk sensitivity and aversion and Individualistic-Competitive reasoning the least sensitivity and aversion to risk.

3.4 Stressors in an organisational setting

The UK Health and Safety Executive produced the “management standard framework” in relation to stress-related health issues. Job role, organisational change, job demands, support functions and control systems are some of the issues affecting health and are part of this strategic framework (HSE, 2007; Mark and Smith, 2008; Haque and Aston, 2016). Interestingly, Several studies identified the above-mentioned issues as “psychological stressors”, leading to physical or psychological problems, such as fatigue, gastrointestinal problems, heart disease, depression, musculoskeletal disorders, work-family conflict, absence, burnout, substance misuse, accidents (Cox and Griffiths, 1995; Gianakos, 2002; HSE, 2007; Mark and Smith, 2008 and 2011; Haque and Aston, 2016). These have serious detrimental consequences, such as an increase in absenteeism, higher employee turnover, an increase in the

number of strikes, reduction in productivity and low morale at work (Mark and Smith, 2008 and 2011).

An employee's work-attitude and efficiency are affected by stress. This has been one reason why it has been a central issue for organisational researchers and attracted considerable attention (Jamal, 1990; Kumasey *et al.*, 2014). In addition, it has been supposed that organisational commitment is affected by organisational support and/or stress and, thus, researchers from the organisational behaviour and human resource management disciplines are interested in evaluating variations in organisational commitment attributable to these variables (*ibid*). However, there is no conclusive evidence measuring variations in causes and consequences from the perspective of gender, faculty and economies.

There is some recent literature on different types of stressors including personal and organisational factors, identified as affecting distinct kinds of employees (Haque and Aston, 2016; Haque, Aston, and Kozlovski, 2016; Haque, Aston, and Kozlovski, 2018). However, these studies were carried out in the IT and Logistic sectors, leaving little conclusive evidence on the education sectors of different economies. What the studies mentioned do show is that there is no variation in the consequences of stress in for either gender at different layers of management, in developed and in developing economies. There is a need to investigate the education sectors to confirm or disconfirm whether causes and consequences vary from sector to sector.

It is known from Haque and Aston (2016) that 'task demand' is the most prominent organisational stressor affecting male employees, while 'personality clashes' (personal factor) affects female employees. This kind of research has an implication that HR and top leaderships could make a difference in the management of varying types of stressors by gender.

Since HR also plays some role in shaping organisational commitment and enhancing individual and collective information, it would be valuable to examine the relationship between the variables of interest in the contrasting economies' educational sectors; specifically, measuring variations in stress in order to understand the impact it has on the effectiveness and performance of employees working in the educational sector. Interestingly, the role of the occupational therapist has been absent from comparative research despite a number of scholars having argued that in order to deal with employee stress, modern-day firms should consider the role of the professional occupational therapist (Chang and Lu, 2007; CAOT, 2010; Mark and Smith,

2011; Haque and Aston, 2016). This research deficit also applies to the education sector as a whole and particularly to this sector in Pakistan and the UK.

Numerous scholars found that smooth operations and organisational efficiency are affected strongly by 'job stress' in modern professional life (Chang and Lu, 2007; Mark and Smith, 2011; Kumasey *et al.*, 2014; Haque and Aston, 2016; Haque, Aston, and Kozlovski, 2016). Studies have shown that workers' productivity, attitude, behaviour, and performance are negatively affected by stress at the workplace (Ofoegbu and Nwadiani, 2006; Kumasey *et al.*, 2014). However, these studies mentioned above do not examine variation in the causes and consequences. On the other hand, the recent quantitative work by Haque and Aston (2016); Haque, Aston, and Kozlovski (2016) examined different types of stressors affecting the performance, productivity, efficiency and behaviour of employees. They find that causes vary for males and females. Males are more likely to be stressed because of 'organisational factors', while females are negatively affected by 'personal factors' (Haque *et al.*, 2016; Haque and Aston, 2016; Haque and Oino, 2017). Interestingly, the same studies showed that employees' organisational commitment at the operational level is negatively affected by stressors, while the commitment of managerial level employees is positively influenced by stress (*ibid*).

As these the studies were conducted in the IT sector, the findings cannot be generalized safely to the education sector. teaching and non-teaching staff are different to managers and non-managers; therefore, there is a possibility that causes and consequences may vary among education sector employees. Notice that differences in the prevailing rationalities present in these different samples as described by G-GCT may go some way to explaining the differences in their responses.

Hart and Cooper (2001) argued that not only individual but also collective performances of employees within an organisation are influenced by stress and, thus, for employees, the work-related cost is significantly higher. Several studies have supported the notion that stress negatively affects the performance and efficiency of organisations (Dua, 1994; Brown and Uehara, 2008; Reskin, 2008; Kehsavarz and Mohammadi, 2011; Kumasey *et al.*, 2014; Haque and Aston, 2016). However, whether stressors negatively or positively affect the performance and efficiency of the educational sector's employees, especially from a faculty and gender perspective, is not yet examined in a comparative manner.

Now that the level of stress is known, and a brief overview is provided about stress, particularly stressors in the organisational setting. Its causes and consequences need further exploration. In

particular, there is a need to explore the magnitude of the impact of stressors on the overall and individual dimensions of organisational commitment. According to Ekundayo (2014) stressors lead to dissatisfaction, conflicts, a sense of being overwhelmed, and sensitivity to threats. On the other hand, Haque and Aston (2016) argued that stressors themselves cause stress rather than acting as mediators. Ekundayo (2014) argued that the researchers' and medical practitioners' view is that prolonged stress can result in an ulcer, cardiac disease, and is destructive to the functioning of the human mind and body. Haque and Aston (2016) argued that chronic stress tends to reduce not only an individual's physical functionality but also their reported subjective well-being, overall spirituality and mental abilities. Hence, stressors do not only affect the physical being but also the psychological being of individuals.

Interestingly, the recent study by Mark and Smith (2018) examined the stress of university staff. A high level of stress is evident in university teaching staff in the UK (Mark and Smith, 2018). In addition, high workloads, job insecurity, family conflicts, sleep problems, long working hours and low control (autonomy) are some of the reasons for the high stress of university staff in the UK (ibid). Talking to colleagues (informal social support) is found to be an important way of dealing with stress among university staff in the UK. Another important notion identified by Mark and Smith (2018) is that more highly experienced, university staff deal better with stress. Additionally, communication is considered as a key to resolving stress at university (ibid). Lastly, the same study found that university staff did not believe that stress in the education sector was higher than in other sectors (ibid).

Ekundayo (2014) argued that anxiety, the frequent occurrence of negative emotions, depression, fear, upset stomachs, disturbed sleep and loss of appetite are common symptoms for stressed individuals. Work, workers and workplace efficiency are reduced because of excessive stress (Ekundayo, 2014). Nevertheless, researchers have used different approaches to assessing occupational stress and it is essential to examine different approaches before considering the one that is best-aligned with the needs of the present study.

3.5 Approaches to investigating occupational stress

The engineering metaphor is in widespread usage in research on occupational stress, that is, stress is viewed as a load bearing on an individual's capacity to withstand it, rather like a load placed on a beam which is said to be stressed as a result. Thus, the employee's 'work environment' can present him or her with harmful characteristic (Jovanovic, Lazaridis, and Stefanovic, 2006) to be brought within the capacity of the employee to bear. Several

‘environmental factors’ are considered as causing ill health, treated as independent variables (Jovanovic *et al.*, 2006). Under this approach the causes of stress are also envisaged as ‘structural’.

Under a physiological approach, stress is instead a physiological *response* demonstrated by an individual when encountering a threatening or dangerous situation, reflecting stress as a “dependent variable” (ibid).

The psychological approach is a third alternative which envisages stress as the result of continually changing interactions between individuals and between them and their respective working environment (ibid). Interestingly, under this approach, the main argument is that stress could be measured by taking into account the emotional reactions and cognitive processes underpinning these interactions, inferring challenging person-environment interactions, which then reflect in psychological dimensions interlinked with the stress phenomenon (ibid), ie ‘stressors’.

There are criticisms. Firstly, both the engineering and physiological approaches do not appropriately comprehend the stress phenomenon. For instance, noise and disturbance affecting an individual’s comfort and working performance under the engineering model is one example. Interestingly, here the adverse effect of noise on working efficiency or performance is not evaluated from the aspect of its frequency or volume but is examined by considering its nature and differing effects according to the individual (Jovanovic *et al.*, 2006). According to Broadbent (1981), if tiredness and fatigue is already higher among the subjects then it is likely that even normal levels of noise might be very destructive to maintaining task performance. On the other hand, in situations of social gathering or leisure, some individuals might accept a high level of music noise (Broadbent, 1981; Jovanovic *et al.*, 2006). This means that noise is not the main disturbance causing stress but the context, individual capability of handling it and individual preferences. What we have called the ‘engineering metaphor’ is not a comprehensive explanation, as it does not encompass different subjectivities particularly well. Additionally, Scott and Howard (1970) state that certain specific types of events or situations which prove problematic to some individuals are not severe for others. These variations could be attributed to personal differences in outlook in which case G-GCT may offer at least part of the explanation, with, presumably Fatalism and Hierarchy being associated with the greatest intollerances, while the Egalitarian disposition might embrace loud noise in the context of a concert with a big gathering of like-minded fans. However, at present, there is no conclusive evidence from the literature at hand for how stimuli differ in their effects depending on the

coping ability specifically of teaching and non-teaching staff by gender, faculty and contrasting economies.

Douglas (1992) argued that the perception of an individual is significant in their assessment of events as stressful or not. With the engineering approach, such behaviours and related perceptions are not explained in an appropriate and detailed manner, except by way of an analogy with the 'strength of a load-bearing beam'. Notably, there is no comprehensive explanation regarding the actual nature of risk and the cultural and group biases that are likely determining factors in the formation of the stress experience.

Jovanovic *et al.*, (2006) argued that stress is not always destructive because a little stress is positively associated with good health and good performance in the organisational settings, known as 'eustress'. Another serious criticism of the 'engineering' metaphor is that it provides no rationale for the above notion: any amount of, say vertical load on a beam creates stress and all we can say is that above a certain load the beam will be damaged. In other words, there is no ideal level, but only a 'safe level'.

Another approach is the "physiological approach" which states that noxious events and unpleasant elements will show specific types of physiological response. The difficulty here is that over time individual responses vary. Interestingly, with this approach, the physiological response are defined very differently to those identified by Selye's (1976) findings (Jovanovic *et al.*, 2006). Additionally, stress responses are not always produced by harmful, physical situations. Specifically, heat was considered by Douglas (1992) as an example of what would not lead to a stressful response of an extreme nature among heat-tolerant individuals.

Lacey (1967) found that there is inconsistency between the various physiological attributes of stress and the idea of a particular set of response symptoms (cited Jovanovic *et al.*, 2006). the relationship between variables mentioned above is far from consistent (ibid). Furthermore, it is difficult to differentiate between physiological changes appearing at times of stress and those that occur when there is no stress immediately present; specifically, stressors and stress may occur in different timeframes (ibid). Nevertheless, there has been a gradual increase in research over time indicating that if a "stress response syndrome" exists, then it is not of a general nature and response patterns vary from one to another to some extent. The major criticism of the engineering and physiological approaches to stress is that they are conceptualized within a "stimulus-response" paradigm, which is relatively simple in nature, proposing a particular set

of responses, while ignoring individual differences along with differentiated underpinning cognitive and perceptual patterns (Cox and Griffiths, 1995; Jovanovic *et al.*, 2006).

Additionally, both engineering and physiological models do not treat individuals as an active medium but as passive vehicles for converting the environment's stimulus attributes into physiological and, more importantly, psychological responses (Cox and Griffiths, 1995; Jovanovic *et al.*, 2006). These earlier models did not take situational factors and interactions between individuals and their different environments into consideration; ignoring the composite or "systems-based approaches" interlinking psychology, behaviour and biology (Cox and Griffiths, 1995; Jovanovic *et al.*, 2006). Furthermore, work-related stress, specifically in the context of the organisation and psychological aspects are ignored by these approaches.

Today, perhaps the most widely conceptualized viewpoint is exploring stress from a "psychological" perspective. After assessing all three approaches, it can be concluded that the psychological approach is more associated with modern and contemporary theories of stress, while physiological and engineering approaches are more linked with earlier theories of stress. Given this advance in the literature, in this study, the psychological perspective is used to investigate the research variables.

3.6 Summary

Stressors at a workplace call for a conceptual framework adequate for investigating the variables of interest. In the present study, the latest "psychological approach", is used. Based on the literature so far, the independent variables identified for this study include: 'occupational stress' with three types of stressors, 'personal stressors', 'organisational stressors' and 'environmental stressors' respectively. These will be evaluated with some assistance from institutional theory. The variables in question are:

- personal strain
- personal resources
- job role stress
- social support
- the role of a professional occupational therapist
- perceived job stress categorized largely according to cultural norms

The dependent variables in this study include

- organisational commitment (AC, NC, and CC)
- the comparative effects within the education sector on teaching and non-teaching staff

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

Research methods and methodology are an integral part of the research process and, therefore, it is essential to develop a comprehensive understanding of them and present a justification for the choices selected.

4.2 Research paradigm

According to Easterby-Smith, Thorpe and Jackson (2015), research paradigms consist of alternative patterns of practice that researchers follow in pursuit of their research. The current thesis falls in between two principle research paradigms but, to a larger extent, it falls within what has come to be known as the ‘scientific/ positivist paradigm’, while, to a lesser extent, using aspects of the ‘socio-anthropological paradigm’. This study has both; quantitative methods and qualitative methods combined for investigating variables of interest through abduction. Nevertheless, the greater emphasis, in this study, is placed on the extraction of numerical relationships between research variables accompanied by estimates of their numerical significance.

Mixed methodology is preferred over a single method for pragmatic reasons. Both quantitative and qualitative techniques contribute to abduction. Semi-structured, matrix-based LIKERT scales are used in this study but supported by semi-structured interviews.

4.3 Research Philosophy

One school of thought treats research philosophy and research paradigm as one, while the other treats the two as separate domains. Bandaranayake (2012) explained the distinction between the two terms by stating that a research paradigm is a set of beliefs and research practices, whereas research philosophy involves an over-arching concern with the nature, development and attainment of defensible knowledge.

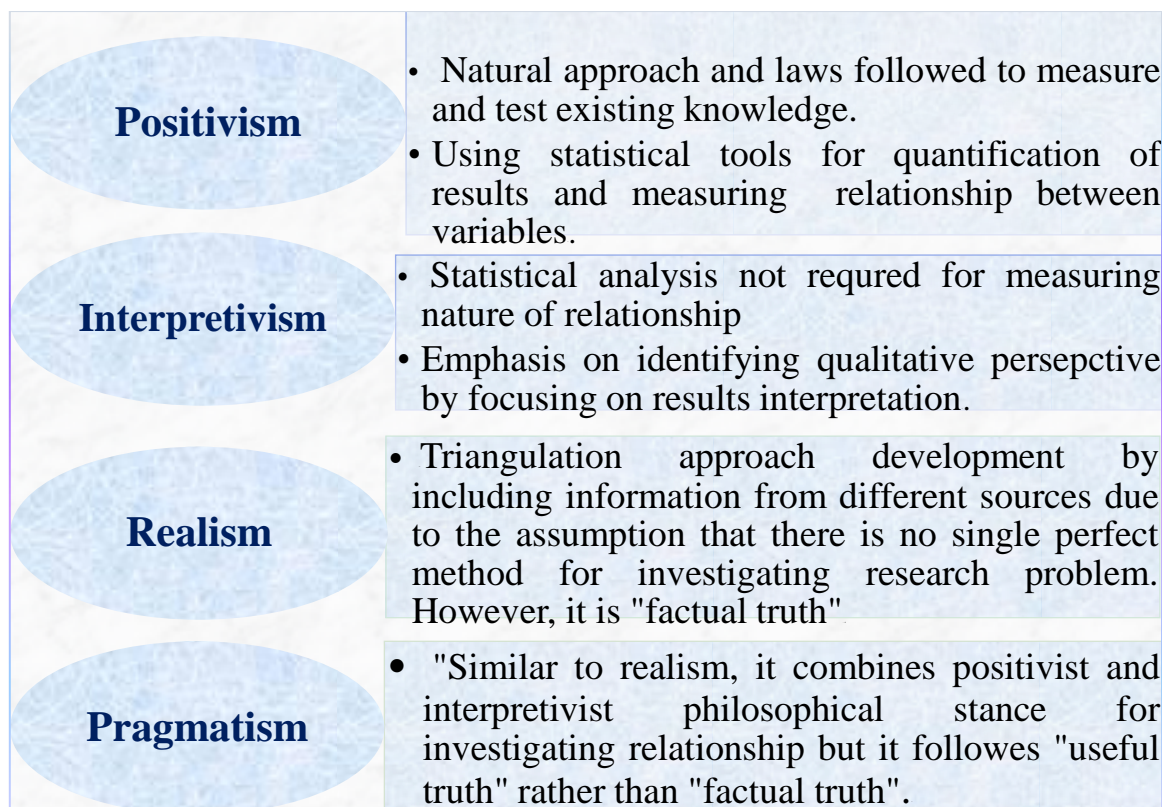


Figure 4. 1: Types of research philosophies (Saunders *et al.*, 2012).

Space does not permit full discussion of the philosophy of knowledge (epistemology) however, “realism” and “pragmatism”; are discussed. Interestingly, some authors consider them as the same, while others argue that each has distinctive features (Zwieniecki, 2013). Interestingly, pragmatist philosophy can cover both positivist and interpretivist philosophy, in that it suggests that research methods should be the ‘slave of the research question’. In other words, the choice of qualitative or quantitative techniques, or some combination of them is justified if they assist in addressing that research question.

Philosophical Realism is susceptible to different definitions. It has recently been taken to mean the supposition that phenomena are factual truths, hence ‘real’. However, there is an earlier stance associated with realism, the proposition that phenomena are real but not observable directly, requiring sophisticated theoretical apparatus for their discovery. The distinction attributed to Plato is that there are unobservable ‘underlying dialectical essences’ which produce observable ‘surface appearances’. The proverb ‘never judge a book by its covers’ is a rough approximation for this position. Pragmatists, such as this author are less concerned with establishing factual truths, (essential or otherwise but rather with ‘useful truth’ (Saunders *et al.*, 2013; Zwieniecki, 2013). This researcher judges that this emphasis on usefulness allows us to embrace positivist and interpretivist approaches (for further discussion *see* Appendix F).

4.3.1 The Distinction between Factual and Useful Truths:

David (2015) stated that in the early 20th century Russell and Moore advocated the idea of truth in the form of “the correspondence theory of truth [which] is the view that truth is correspondent to, or with, a fact”. This would encompass relational features as part of a truth (to be specified) (David, 2015). This notion has been used by some theorists in terms of relevant relations such as agreement, representation, copying, accordance, correspondence, conformity, signification, picturing, congruence, satisfaction and reference (David, 2015). Alternatively, authors have made reference to facts, situations, properties, sets, tropes, objects, sequences of objects, conditions, and states of affairs (David, 2015). Hence, terminological differences and substantive differences have led in effect to the reformulation of the ‘realism, in a multiplicity of versions, making it difficult to identify this position.

Metaphysical realism is usually linked with the correspondence of theory of truth to determine whether the truth falls into factual category or useful one. According to David (2015), from the lens of truthmaker theory, truth can be viewed liberally in which even “a correspondence account [is] one, but only one, ingredient of its overall account of truth”. In other words, there may be pluralism (many competing versions of truth). Aristotle's defined truth as, “to say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true” (cited Crivelli, 2004). Hence, the argument does refer to “a relation (i.e. saying something of something) to reality (what is)”. Aristotle emphasis was on the notion that truth involves inferences “(viz., his sitting and his not sitting are said to underlie the statements – ‘he is sitting’ and ‘he is not sitting’, respectively)” (cited Crivelli, 2004; Szaif, 2006). Hence, it indirectly indicates that thoughts are “likeness” of things conveying useful truths as distinct facts (Crivelli 2004; Szaif 2006).

Künne (2003) argued that truth lies in an agreement with the object while discord with object is to be considered as false. This is consistent with the concept of symphonos whereas the epharmoge concept involves concordance between the known and the knower. A third ancient concept, philoponus treats truth as neither to be understood through things or states of affairs but falls in between. In other words, the essence of truth is not always expressed through discrete facts but is understood as a grasp of the relations existing between phenomena.

Faizan et al. (2019), argued that the expression of relationships in numerical form attains higher factual truthfulness because mathematical objectivity is employed, while useful truth develops by testing propositions for their practical implications. What is truthful is that which works in practice.

While the philosophical stances, “*realism*” and “*pragmatism*” are commonly adopted in social science research, some authors consider them as the same, while others argue that both have separate distinguishing features (Zwieniecki, 2013). Interestingly, Saunders *et al.*, (2013) argued that both look similar and to a large extent, both philosophies combine aspects of positivism and interpretivism. For Saunders, at least, realism, is based on “*factual truth*”, whereas pragmatism follows the theme of “*useful truth*” (Saunders *et al.*, 2013; Zwieniecki, 2013).

On the other hand, Lipscomb (2011) argued that realism and pragmatism overlap each other and, thus, the theoretical assumption of the two being different is rejected, with the clear implication that factual and useful truth are one and the same. However, a realist philosophical stance is common when a researcher operates as an independent individual examining a process with the belief that social realities and scientific attempts could be combined (Brace, 2008; Riemer *et al.*, 2012). Thus, to a greater extent, this philosophical stance resembles positivist philosophy by considering sophisticated enough scientific tools to be capable of correct measurement of relationships. In other words, the mathematical objectivity is used to determine relationships, here statistical quantification of relationships. However, this need not exclude follow-up qualitative re-interpretation of results (Matthewsand Ross, 2010; Sekaran and Bougie, 2012).

Interestingly, pragmatist philosophy also combines positivist and interpretivist philosophy, in order to gain both a qualitative and quantitative perspective. However, the main difference is that realism prioritises actual existence as the definition of factual truth, while pragmatic philosophy prioritises useful truth (Saunders *et al.*, 2013; Zwieniecki, 2013). We see no argument here against using qualitative and quantitative methods (for a discussion, see Mathew and Ross; 2010; Sekaran and Bougie, 2012); or to use fairly recent terminology, to embrace both interpretivist and positivist philosophies, *when it is useful to do so*.

We are reminded of Aquinas’ balanced formula: “equation of thing and intellect” which accommodates not only judgements and thoughts but individuals and things (for instance; a true friend) (cited Finnis, 2017). Aquinas identifies true thoughts as derived from conformity between thought and reality while in a person trueness results from the confirmation of thoughts (Finnis, 2017), the deepest truth grounds within the truth resulting from the fact and its relation to truth.

Künne (2003) seems to make a similar distinction when he differentiates between object-based and fact-based versions. It can be argued that the opinions, views, and expressions of the individuals under study offer useful extensions beyond numerically expressed relationships. Respondents also have their theories too, especially when asked what they think the causal relationships between variables might be on the basis of their own experiences of how they vary. Both factual and useful truth combined in this research to explore research phenomena as mathematical objectivity and exploration of embedded realities are explored in our thesis. (For further details about factual and useful truth, *See Appendix F*).

4.3.3 Axiology

Axiology is considering particular type involves the ultimate values, as a special consideration (Hogue, 2011), patterns and aspects preferred over others. The author has affiliations with the education sectors in Pakistan and the UK and values his obligations to them in terms of stress reduction, in other words, our preferences result from having a stake in these two countries' education sectors.

We favour the inclusion of literature from the last five decades rather than earlier and have preferences for cross-sectional comparative research over longitudinal design and for studies from different sectors which also explore the relationship between occupational stress and organisational commitment. Additionally, the inclusion of the professional occupational therapist and for pragmatism can also be described as axiological along with “*meta-analysis*” of both quantitative and qualitative studies as means to identifying research variables in a systematic manner. In addition, a preference for explanatory rather than descriptive studies is part of our stance, as is the objectivist epistemological stance, here preferred over the alternatives. We favour comparative knowledge that is not limited to a single region, which increases the generalizability of the findings, to a certain extent.

4.4 Research Type

There have been many attempts to create typologies of research. Among other ways of classifying knowledge, Sekaran and Bougie (2012) classified research into basic and applied types of research, while Brace (2008) categorized research into three distinctive types, namely: quantitative research, qualitative research and pragmatic (mixed) research. The important theme of basic research is expanding existing knowledge and, therefore, research is based on

an existing research problem, whereas applied research is devoted to a particular problem with a view to making an intervention. Our research is basic in that it is an attempt to enhance the existing body of knowledge of a research phenomenon. Moreover, this is pragmatic (mixed) research as it uses both quantitative and qualitative methods to suit the research question.

4.5 Research Approach

Yet another classification is to distinguish research as either inductive, deductive, or abductive, arising from specific types of research philosophy (Brown, 2012; Saunders *et al.*, 2007). The gathering of empirical ‘facts and figures’ with a view to developing a theory is treated as inductive, while an attempt to confirm or refute (test) a given theory is often described as deductive (Sekaran and Bougie, 2010). The testing of hypotheses is not the principle aim of the inductive approach (Sekaran and Bougie, 2012).

Abduction is the combination of both, either by starting with inductive approach and followed by deductive approach or vice versa, often as an iterative (repeated) cycle.

In the present research, Sekaran and Bougie’s (2012) proposed “*hypothetico-deductive-inductive*” (abduction) model is used, starting with a deductive approach, followed by an inductive approach to re-analyse the primary findings. At the commencement, the quantitative method is used to test the hypotheses for their statistical significance. This is followed by application of an inductive, qualitative approach which allows for interpretations. This abductive design suits the present study, not least because the existing literature is far from agreed both as to the theory to use and how the phenomena under study are to be defined. Indeed, it is striking that the prior literature contains serious differences and disputes even as to what it is that is to be tested.

4.6 Research Design

According to Sekaran and Bougie (2012), the research design plays a significantly important role in articulating the process of data collection. For Creswell (2013) design is necessary to enable researchers to collect data within a specific duration, a structure or planned sequence involving choices of tools and techniques (Sekaran and Bougie, 2007).

This study undertakes a cross-sectional research design because respondents are studied only once within a given time interval, longitudinal research usually being beyond the resources available for doctoral research in the social sciences. Comparisons are a powerful means of making sense, in this case looking for synchronic differences and similarities between a

developed and a developing economy, teaching versus non-teaching staffs and between males and females. By limiting the bases for comparison, boundaries can be placed around the study, but in ways that are relevant to other researchers who may be interested in the same set of variables. We follow Haque *et al.*, (2018) and Haque *et al.*, (2017) who also used cross-sectional designs to investigate comparative variations within sub-groups. The objective of the study is to identify expected variation between the gender, faculty, and economies of interests by creating a comparison. However, this approach does not exclude to possibility of surprising similarities between samples.

4.7 Research Methods for Data Collection

Quantitative, qualitative and mixed methods are commonly used data collection techniques in social science research (Sekaran and Bougie, 2012). According to Smith (2010), two traditional methods: “qualitative 'phenomenological' interpretivism” and “quantitative 'scientific' positivism” are often presented as if deep rivals to one another, with “students [encouraged to] assemble “advantages and disadvantages” of each, pledge their allegiance, or a preference for “mixed method” (wishing for a “truce” in the “paradigm war”)” (Smith, 2010). However, we do not have an absolute commitment to either, favouring ‘mixed methods’. McNabb (2008) argued that that a quantitative descriptive method mainly investigates the relationship between research variables defined in advance, while causality is the major development of a quantitative *experimental* study which often take the form of laboratory observations of the effects of different ‘laboratory conditions’ on the results, usually informed by a theory. For Singh (2007) quantitative studies seek to establish statistically significant correlations between research variables with numerical expression as the key feature. This is usually but not exclusively true also of social and psychology laboratory experiments. Advocates of quantitative methods usually make the claim that their stance is objective stance believing that numerical significance and logical conclusions warrant this claim (Creswell, 2013). This however presupposes that the measurements used apply reliably to the variables as defined, and that all respondents interpret each questionnaire item in the same way, rather than place different meanings on them. To answer any question is to give a subjective response (that of each of the respondents in turn). Note that the researcher’s act of defining what a variable is, how to translate it into everyday language that respondents will understand, how to measure it and the interpretation of the results all involve subjective judgements which may *not* be shared by every researcher in the field, allowing for disagreements.

The present thesis requires both numerical significance and in-depth exploration of research variables; pragmatic (mixed) methods appropriate to gaining greater understanding of the relationships between occupational stress and organisational commitment and other variables. In other words, it keeps the options and dimensions as open as practicable in the form of an hypothetico-deductive-inductive (abductive) cycle – a survey for the purpose of statistically testable data then in-depth interviews which dwell rather more on respondents experiences of what researchers have come to call ‘stress’ etc.

As we have stressed, we have an axiological commitment to both ‘factual truth’ and ‘useful truth’ and to allowing for a deeper understanding that goes at least some way beyond our numerical data. Quantitative methods have the advantage of making research simpler and more straightforward. On the other hand, the qualitative methods provide developmental opportunities.

The interview evidence allows us to explore emergent themes which may not have been anticipated and allowed for within a structured questionnaire design (for further details see Appendix F). The use of different techniques also allows for cross checks strengthening, we think, the reliability of the work (Kiliçoglu, 2018).

Given the difficulties mentioned above in terms of how questionnaire items are phrased and understood, the expressions and feelings of each respondent cannot always be captured accurately through quantitative surveys and even if each question is presented and explained in the same way to every respondent, there is no guarantee of common understandings of all the same concepts among respondents (Buzdar et al., 2016; Kiliçoglu, 2018) hence the inclusion of interviewing (see also McKim, 2017). Our design allows for the possibility that the qualitative and quantitative evidence will conflict.

One of the strongest reasons for seeking both qualitative and quantitative evidence has to do with consciousness itself. Instantaneous answer can be found to more straightforward questions, while respondents may need more time to respond to more demanding questions for which they need to recall and assemble answers from experiences which are held in the form of unconscious memory. These answers will come to the forefront of respondents’ minds, but they take the time offered through sympathetic interviewing. This kind of data will have a comparatively more fluid structure and be more discursive and considered.

4.8 Sampling Techniques

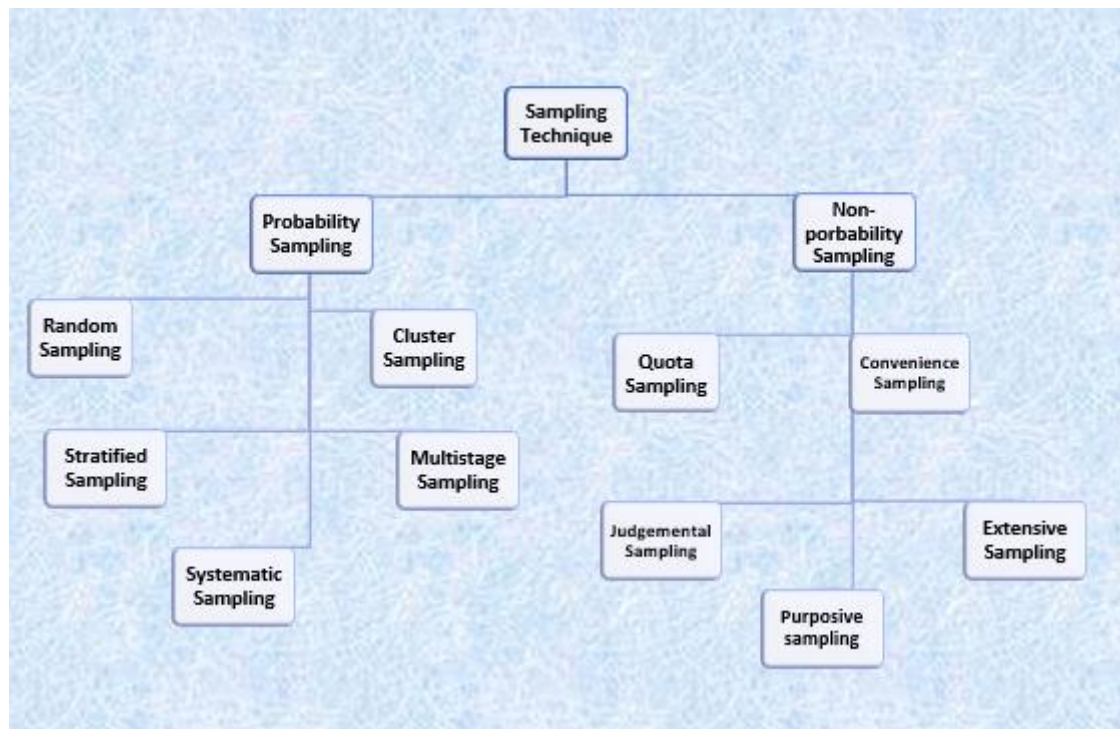


Figure 4. 2: Sampling techniques (Hair *et al.*, 2007).

The question arises: ‘Who should we choose as respondents and how should we choose them?’ Hair *et al.*, (2007) broadly categorized sampling techniques into probability and non-probability. Sekaran and Bougie (2010) explain that an equal chance of selection for all who are encompassed in a sampling frame is a ‘probability-sampling’ technique, whereas ‘non-probability sampling’ accords respondents unequal chances of being included in a study (Gingery, 2009). Sekaran and Bougie (2012) explain that probability sampling is effective when researchers are seeking to make wider generalization (beyond their samples) whereas non-probability sampling is useful when time and other factors become more critical than generalization and where all respondents are integral parts of a common system, such as urban politicians within the same city, or members of the same university.

Sampling is further divided into ‘stratified’ sampling in which respondents are drawn proportionately to represent different populations within the same system, which may be accomplished through ‘Area sampling’ (Sekaran and Bougie, 2012). Stratified (probability) sampling enables researchers to represent a population more accurately according to its sub-groupings (Hair *et al.*, 2007; Haque, 2007; Sekaran and Bougie, 2012) (For further details see Appendix F).

In this research, both probability and non-probability sampling techniques are combined for selection of the respondents and extraction of information. Stratified sampling is used representative of very different types of economies; Pakistan being an example of a developing economy, whereas the UK is a developed economy. Male and Female and teaching and administrative staff are also selected by using proportionate, stratified sampling. An element of area cluster sampling is also used in the selection of educational institution. While few researchers can be one-hundred percent sure of the representativeness of their samples, the above-mentioned sampling techniques reduce the risks of sampling errors significantly.

Inclusion of a snowball sampling technique, in the early stage, is to ensure that knowledgeable participants are included. By approaching one knowledgeable contact at the targeted institutions, such as HR departments, a Registrar, an Operations Head, a Vice Chancellor or a Dean, and then asking them for recommendations as to who to interview next, the researcher is able to develop a chain of referrals, reaching an otherwise hidden population through these points-of-contact (gatekeepers). Administrators, gatekeepers and HR officers were contacted by email with a brief overview of the purpose of the research, an estimate of the time needed to complete a survey and for interviews.

4.9 Population and sample size

According to Sekaran and Bougie (2012), a population is an entire set, whereas a sample is subset representative of a population. It is difficult and costly to study all the events for a large population therefore, suitable representatives are needed if results are to be generalized across the entire population from which they are drawn. In this thesis, all universities in Pakistan and the UK formed the population. Additionally, ‘middle range’ universities are the sub-categories chosen for both countries. And within this population, we targeted universities offering business and management courses which were also public or semi-private universities.

Official government lists of universities were obtained and from this official data on the site (etc) of each institution was available. Area-clustering sampling was used effectively for selection among these institutes. We relied on gatekeepers to ensure proportionate selections of teaching and non-teaching staff, after briefing them to ensure that both types of employees were open to selection according to the sizes of both respective sub-samples.

4.9.1 Determining Sample Size for Interviews:

A formula for marginal error was used to determine sample size. According to LeBlanc (2004) it is a convention that a ± 3 “margin of error” is permissible but that this is only possible if the

researcher has control over confidence level and sample size. Nevertheless, to a large extent, researchers do not have control over the parameters of population 'P' that affects the value of ' \hat{p} ', and hence the probable estimation of population is likely through the formula of M.E

(Margin of Error) $M.E = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{n}$ (Rumsey, 2002; LeBlanc, 2004; Jamal, 2013). On the other

hand, Rumsey (2002) and Jamal (2013) argued that the margin of error in *social science* research can be up to ± 4 and still be considered acceptable. Since, this study is social science the M.E is thus 0.04 for measuring the sample size. Thus, the formula for determining the

sample size here is $n = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{M.E}$.

4.9.1 Determining Sample Size for Questionnaire:

$$M.E = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{n}$$

$z = 1.96$ with 95% confidence

$M.E = \pm 4\%$ (0.04)

$n =$ Sample Size

$\hat{p} =$ prior judgement of the correct value of p (Probability to have more than 20% of population)

$$M.E = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{n}$$

$$n = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{M.E}$$

$$\begin{aligned} n &= \frac{\hat{p}(1-p)z^2}{M \cdot E^2} \\ n &= \frac{0.2(1-0.2)(1.96)^2}{(0.04)^2} \\ n &= \frac{(0.2 \times 0.8) \times (1.96 \times 1.96)}{0.04 \times 0.04} \\ n &= \frac{0.16 \times 3.8414}{0.0016} \\ n &= \frac{0.614624}{0.0016} \\ n &= 384.14 \end{aligned}$$

Using Jamal's marginal error formula, we arrive at a minimum sample size for our survey of **384** respondents to draw generalizable conclusions.

4.9.2 Determining Sample Size for Interviews:

Of the interviews, 98 participated (we ensured there is equal split between gender, economy and faculty. In other words, out of 98, we ensured 49 each participate from the UK and Pakistan. Similarly, in terms of gender, we ensured to have equal representation of 49 each males and females and likewise, for teaching and administrative staff). Additionally, the “saturation-point” was attained in the research after reaching 98 participants. According to Morse *et al.*, (2006), the sample size of 30 or above is usually sufficient in reaching the point-of saturation (cited Haque *et al.*, 2018), by which we mean the point at which the n^{th} . Respondent adds nothing new to what previous respondents have said. Yet Creswell (2013) states that in comparative studies (which our’s is) 30-50 interviews are usually sufficient for reaching saturation point. Since, this is a comparative analysis and the sample is not only equal in terms of the major groups but also higher than the suggested benchmark of Creswell (2013), we feel that we have attained acceptable sample sizes. The sample size could have been improved further by increasing the number of participants to 50 for each group, giving a total of 100 respondents. However, the saturation point was attained at 98 and, thus, the responses became repetitive therefore the addition of two respondents would not have affected the outcome proportion indifferently. Therefore, it was decided that the sample size was sufficient to draw logical conclusions. Note here that it is difficult to determine whether sample sizes are adequate without knowing how much variance will emerge across all responses. If populations are more-or-less unanimous in their answers then we could have confidence in smaller samples. We argue that both the survey and interview sample sizes are consistent with custom and practice as reported in the methodological literature.

4.10 Research Instrument

Semi-structured, matrix-based survey and a semi-structured interview schedule are the two research instruments used in this study. As explained above, quantitative techniques allow for statistical analysis, while exploration of the research phenomenon is allowed through qualitative interviewing.

4.10.1 Self-constructed and Online Survey

For the survey, the main instrument, the researcher followed a DAB (demographic, attitudinal, and behavioural) strategy. Our matrix-based semi-structured survey contained multiple choice questions and a rating scale. LIKERT scale with six-points (*Strongly Disagree=1, Disagree=2,*

3=*Moderately Disagree*, 4=*Moderately Agree*, 5=*Agree*, 6=*Strongly Agree*) was used for variables related to occupational stress and organisational commitment. Intentionally the option of 'neutral' was omitted as researcher wanted the participants to state the balance of their opinion one way or the other. This was done in order to strengthen positive or negative relationships among these variables. Nevertheless, some questions were given scales running from low to high (0-to-10), specifically for occupational therapy.

"GOOGLEDOC", was used to develop this online survey. The link was forwarded to gatekeepers in targeted universities with a request to share it with teaching and administrative staff. The researcher could have met with the employees in person when distributing the questionnaire, but preference was given to online delivery so that no direct contact took place as a precautionary measure. We were concerned that some respondents might be have been stressed enough already and any perceived face-to-face pressure to participate may have been harmful to them. It may be easier to say 'yes' or 'no' freely to an anonymous request for participation.

Gender, age, education, experience and faculty formed the demographic variables. The researcher ensured through demographic questions, that the respondent's background could be verified, to aid the reliability of the findings in terms of the respondents' knowledge and experience. Attitudinal and behavioural questions followed these demographic questions. We checked that our sample was representative of the presence of professional occupational therapists within the UK and Pakistani universities.

4.10.2 In-depth face-to-face and SKYPE Interviews

As part of our pragmatic approach, a semi-structured, open-ended interview was employed, allowing for flexibility. The points-of-contact (Gatekeepers) were informed of participants' voluntary participation. Additionally, it was the gatekeepers' task to arrange interview days and times. The option of participating either via Skype or directly person-to-person was offered for respondents' convenience. In order to ensure those participants selected for interviews had not participated in a survey, the researcher used snowball-sampling.

The procedure was as follows:

First, the "*point-of-contact*" within each university was given the responsibility of circulating details of voluntary interview participation and for ensuring that those who had already participated in the survey were not interviewed. It was the "gatekeepers" who informed

participants that either they could complete the survey or or participate in an interview, but not both.

Second, chain-referrals were developed through LinkedIn. First contacts operated as ‘gatekeepers’, arranging knowledgeable participants for the interview. Interviewed participants referred the study to further participants forming a chain-referral (ie. a self-snowballing sample).

In both face-to-face and Skype interviews, the researcher informed participants about the research purpose, expected duration, and option to leave the interview at any time. The researcher assured all participants before the actual interview that all personal details and responses would remain confidential. We began with general questions, such as age, experience, qualification and faculty, then warm up questions, followed by attitudinal and behavioural questions, in order to develop a deeper understanding of the research variables. Since the researcher himself has experience in higher education, he was also able to use his connections (weak ties) in order to reach knowledgeable subjects. The interviews ran over four months (November, 2017 - February, 2018).

For face-to-face interviews, convenient, quota and area-cluster sampling techniques were combined in the interview process. The time duration for each interview was 7 to 12 minutes with an average duration 8 minutes and 33 seconds.

The researcher conducted in-depth review and analysis of each week’s worth of interview findings. After 98 interviews, these reviews established that the interviews had reached the “*saturation point*”, when no new information was being obtained and there is repetition of previous answers. This point occurred for us much later than as recommended by Morse (2006), who recommends thirty and as recommended by Creswell (2013) who estimates that thirty-fifty interviews will be needed.

The researcher approached a total of 42 universities but only 14 agreed to participate, reflecting a 33.3% response rate in terms of participating institutions. The interview findings were entered manually into an MS Excel spreadsheet. The researcher ensured that the answers were transferred accurately from paper to excel spreadsheet as each set of responses was checked twice. For each question, the researcher developed a new sheet, developing codes in support of thematic analysis, as recommended by Attride-Stirling’s (2001) ‘thematic network analysis framework’. Verbatim comments were split into meaningful and manageable sizes through

coding and proportional analysis. A check was maintained to ensure that proportionate frequencies by gender, faculty and country were attained.

4.10.3 Formulating questions to answer research questions

We developed questions which addressed the variables of interest, and the forms of answers as tabulated below.

Table 4. 1: Operatinoalization of variables.

Variable	Dimension	Indicator	Type and Degree of Scale
Representation of Occupational Therapist	<ul style="list-style-type: none"> Rate of Representation of Occupational Therapist 	I. The representation of professional occupational therapist in Education sector II. The representation of professional occupational therapist at your institution III. The impact of professional occupational therapist in the sustaining human capital in your institute	Ordinal 10 points Likert
	<ul style="list-style-type: none"> Effectiveness of Occupational Therapist in Stress, working efficiency and organisational commitment 	I. Occupational therapist counselling is effective in reducing different types of stress II. Occupational therapist offers advices/solutions that improves working efficiency III. Occupational therapist address concerns that improve organisational commitment.	
Personal Strain	<ul style="list-style-type: none"> Many tasks in limited time Tight deadlines Frequency of mistakes 	I. I am expected to do many different tasks in too little time. II. I work under tight time deadlines. III. I frequently make mistakes in my work.	
Perceived Job Stress	<ul style="list-style-type: none"> Responding badly Thinking while relaxing Finding solution by own 	I. Lately, I respond badly in situations that normally wouldn't bother me. II. While relaxing I frequently think about work. III. I by myself usually find solution for my problems at work.	Ordinal 6 points Likert
Organisational Commitment	<ul style="list-style-type: none"> Affective Commitment 	I. I really feel as if this university's problems are my own II. I would be very happy to spend the rest of my career with this organization	Ordinal 6 points Likert
	<ul style="list-style-type: none"> Normative Commitment 	I. I feel a moral obligation to pursue my career path with this university because loyalty is more important for me II. One of the reasons behind working here is I receive emotional and moral support.	

	<ul style="list-style-type: none"> • Continuance Commitment 	<p>I. Right now, staying with my organization is a matter of necessity as much as desire</p> <p>II. I am not afraid of what might happen if I quit my job without having another one lined up.</p>	
Personal Resources	<ul style="list-style-type: none"> • Self-initiative 	<p>I. When I need suggestions on how to deal with a personal problem, I know someone at university I can turn to.</p> <p>II. There is someone I could turn to for advice about making career plans or flexible hours.</p>	<p>Ordinal</p> <p>6 points Likert</p>
Social Support	<ul style="list-style-type: none"> • Informal support at work 	<p>I. I get a social support from my peers and other members.</p> <p>II. There is at least one person in this university who listen to my problems.</p>	<p>Ordinal</p> <p>6 points Likert</p>
Causes of Stress	<ul style="list-style-type: none"> • Personal Factors 	<p>I. Family problem</p> <p>II. Financial problem.</p> <p>III Personality Clashes</p>	Nominal
	<ul style="list-style-type: none"> • Organisational Factors 	<p>I. Role Demand</p> <p>II. Task Demand</p> <p>III. Organisational Structure</p> <p>IV. Leadership</p> <p>V. Interpersonal relationship</p>	
	<ul style="list-style-type: none"> • Environmental Factors 	<p>VI. Lifecycle of the organisation</p> <p>I. Economic uncertainty</p> <p>II. Political uncertainty</p> <p>III. Technological uncertainty</p>	
Consequences of Stress	<ul style="list-style-type: none"> • Behavioural 	<p>Disturb eating habit</p> <p>Disturb sleep</p> <p>Procrastinating or responsibilities</p> <p>Using alcohol or cigarettes to relax</p> <p>Nervous habits (e.g. nail biting, pacing)</p>	Nominal

	<ul style="list-style-type: none"> Physical 	Aches and pains Constipation Nausea Dizziness Chest pain Rapid heart rate Frequent colds or flu	
	<ul style="list-style-type: none"> Cognitive 	Memory problems Inability to concentrate Seeing only the negative Anxious thoughts Constant worrying	
	<ul style="list-style-type: none"> Emotional 	Depression Anxiety Moodiness Irritability or anger Feeling overwhelmed Loneliness and isolation Other emotional health problems	

Similarly, open ended semi-structured interview questions were tied to the variables of interest, of course, expressed in the ‘day language’ of our respondents. These began with “tell me about your job role (teaching or non-teaching)?”, “How many years of experience you have in Education sector?” and “How do feel about it?”

Later questions more searching questions were asked such as, “What do you like most about this job role?” and “Is there anything that you do not like about this job? and why?”

We then asked employees who reported dislikes to estimate how these affected their work efficiency and how they could be overcome. They were asked to share their experiences, and to judge the level of activity and the effectiveness of their institution’s professional occupational therapist, their experiences of occupational therapy (if any) and if so, in what capacity their services were used.

Respondents were asked for their understandings of social support, whether they had drawn on it, how effective or ineffective it had been and how things had turned out. Emotional and moral support at work was also enquired after.

How they described organisational problem was used to gauge their affective commitment, their job loyalty, normative commitment. Their willingness to continue with the same organisation was used as a measure of their continuance commitment. They were asked about any participation in stress management programmes, if any, the reasons for their stress and potential consequences of stress.

4.11 Pilot Testing

Pilot testing undertaken ensuring that the instruments were intelligible, credible, reliable and feasible for the collection of the data. We circulated the online questionnaire separately in the education sectors of Canada and Malaysia; in which countries the researcher also has connections. The pilot study was carried out with people who matched the attributes of the intended ultimate 'target respondents'. Pilot testing took place in May, 2017. As the medium was English, we had to be sure that participants would understand and respond in what would be a second language. In the pilot the researcher used convenience sampling but in the actual study, the sampling technique was improved as described above. From the pilot, researcher had four completed interviews, and twelve completed questionnaires.

These enabled fine-tuning and adjustments to phrasing and flow (sequencing) of some questions. Difficult phrases and words were replaced with simpler undemanding expressions. We found that with minor adjustments, the research instruments were aligned satisfactorily with the objectives of the research, enhancing their credibility, transparency, reliability and feasibility.

4.12 Data Collection Procedure

After the pilot study the researcher set the criterion for "*inclusion and exclusion*". The minimum age for administrative staff is eighteen years. Interestingly, in both the UK and Pakistan, teaching staff can have a work contract beyond thirty-five years of service. Therefore, we applied no upper age restriction in either country. Additionally, the researcher did not exclude probationary employees. Hence, the option '*less than a year*'s' experience was kept.

Responses were updated automatically once each online questionnaire was completed. A participant could participate in either the questionnaire or the interview but could not both.

Table 4. 2: Current Study Data Collection Procedure.

Research Method	Research Instrument	Number of respondents			Participating technique	Sampling Technique	Approach to reach respondents	Determination of Sample size
		Dimensions	Description	No. of Respondents				
Quantitative Methods	Questionnaire (Matrix based 6 points rating, 1= Strongly Disagree, 2= Disagree, 3=Moderately Disagree, 4=Moderately Agree, 5=Agree, and 6=Strongly Agree)	Total 408			Online questionnaire formed through Googledoc. The link was shared with the Gatekeepers to email it to the teaching and administrative staff in target organisations	Proportionate stratified, area cluster sampling, convenience and purposive sampling	Circulated via Gatekeeper in all targeted universities	Formula of Marginal Error by LeBlanc (2004) and Jamal (2013) $M.E = \frac{z \sqrt{\hat{p}(1-\hat{p})}}{n}$, required minimum sample size = 384.2. Total respondents 408. Hence, acceptable sample size for drawing logical conclusion.
		Dimensions	Description	No. of Respondents				
		Economies	Pakistan	204				
			United Kingdom	204				
		Genders	Male	204				
			Female	202				
			Undisclosed Gender	2				
		Faculties	Teaching Staff	204				
Administrative staff	204							
Qualitative Methods	Interviews (Open ended, semi-structured questions)	Total 98			One-on-One (Face to face and SKYPE)	Quota sampling, snowball, convenience and purposive sampling	Network, connections and referrals	Point-of-Saturation to determine the number of respondents. Using Haque et al., (2018) and Creswell (2013) strategy.
		Dimensions	Description	No. of Respondents				
		Economies	Pakistan	49				
			United Kingdom	49				
		Genders	Male	49				
			Female	49				
		Faculties	Teaching Staff	49				
			Administrative staff	49				

4.13 Data Analysis and Tools

According to Thorne (2000), data analysis poses one of the biggest challenges to the researcher, especially of qualitative data. Quantitative and qualitative analysis techniques and tools require thoughtful data examination within a range of recognised statistical processes. For this purpose, the researcher used AMOS and IBM SPSS 23.1 to quantify relationship between variables of interest. Q-Q plots and graphs are used for determining the equal and normal distribution of data given the number of respondents. Later, the fitness of the model is measured using AGFI, AIC, CFI and RMSEA. It is confirmed that the model is a good fit. Furthermore, explanatory factor analysis using KMO and the Bartlett Test, finds total variance cumulative percentages. Test results confirmed that the factors are adequate for explaining the data. The use of “structural equation modeling” is undertaken in this study to measure the total size effect of the predictors on the dependent variables.

As explained above, the researcher combined a cross-comparative and phenomenological analysis technique for gaining a detailed understanding of the research variables. The researcher has since explored the variables of interest in a cross (contrasting) comparative manner.

4.14 Methodological, Thematic and Comparison of two-perspective review

The procedures, methods and research design employed reflect a methodological review (Johnston, 2007). The researcher ensured that all of the information collected from participants was saved in an MS Excel spreadsheet and checked twice using a downward-upward approach ensuring that no data was missed. Furthermore, the frequency tabulation check was continued for re-assessing; individual checking is part of the thematic reviewing process.

4.15 Methodological Difficulties

Some respondents found terminologies like ‘occupational therapy’, ‘human capital’ and ‘anxiety’ to be confusing. Therefore, researcher sent an attachment containing all such technical terminologies. Although, there is a possibility that the participants will have found it difficult to translate their experiences into responses. And it was important that respondents had experience of the effectiveness of occupational therapist to respond. In interviews, the participants were asked if they have used occupational therapist’s counselling services. Only

then they were asked the follow up questions of their effectiveness. Similarly, those who hadn't used it at first hand, but seen others' using it were asked how they perceive its effectiveness. The proportional analysis was carried out to differentiate these two sub-samples. However, as it is difficult for respondents to judge how effective occupational therapy had been for their 'stress' levels etc. and even more difficult to assess its effects on third parties we should only read the responses as attitudinal statements interlinked with other attitudinal statements rather than considering them as factual statement. This remains a major weakness of the thesis.

The questionnaire was designed to examine the consequences of stress such as physical effects (aches and pains, diarrhea or constipation, nausea, dizziness, chest pain, rapid heart rate, loss of sex drive, frequent colds or flu), behavioural (eating more or less, sleeping too much or too little, withdrawing from others, procrastinating or neglecting responsibilities, using alcohol, cigarettes, or drugs to relax, nervous habits (e.g. nail biting, pacing)), emotional (Depression or general unhappiness, anxiety and agitation, moodiness, irritability, or anger, feeling overwhelmed, loneliness and isolation, other mental or emotional health problems), and cognitive (memory problems, inability to concentrate, poor judgment, seeing only the negative, anxious or racing thoughts, constant worrying) based on Stranks (2005).

Since, there was no conclusive evidence from previous studies measuring the magnitude of these effects of stress, thus, attempt was made to gather it. However, due to constraints on the length of time taken to complete the survey, we did not enquire which of these effects (above) the respondents had experienced, nor when. To have tied them to causes of stress namely, personality, financial problems, family problems, organisational role demands, task demands, life-cycle, organisational structure, interpersonal relationships, organisational leadership, and environmental factors, technological uncertainty, political uncertainty, economic uncertainty would have required hundreds of items. It was decided therefore to make a simple attempt at finding the magnitudes of stress and its consequences through a broad comparative lens.

Interview participants were briefed as to make them comfortable about the sessions and to explain the purpose, timing details and other technical terminologies. A number of difficulties with the survey questions were minimised yet, it could be said that most of the responses in the primary data reflect attitudinal statements interlinked with other attitudinal statements and again, not as factual statement. Though we accepted that this is a weakness we think it is one which future researchers can avoid by redesigning and modifying the questions to increase the facticity of the responses.

However, the instruments remain valuable as they permit reanalysis of each response by “thought style” and using Group-grid cultural theory. Thus, responses will have fallen into fatalism, individualism, collectivism, or egalitarianism or hybrid combinations of these forms of feelings, reasoning and action. We uphold the value of individual-competitive reasoning here, noting that mistakes enable both self and others to learn and improve and not to repeat the same mistakes.

4.16 Ethics

Resnik (2015) defines ethics as, “*norms for conduct that distinguish between acceptable and unacceptable behaviour*”. Dantzker and Hunter (2012) argued it is essential to ensure that researcher is undertaking legally and morally defensible steps. (For further details, see Appendix F).

All respondents were informed about the research purpose, guaranteed confidentiality and told the expected duration for completion of the survey and interviews, their informed permission being required. The points-of-contact and participants were assured the data would only be used for academic purposes and not for personal or commercial gain. No reward was offered for participation. We approached all the selected institutions in a formal manner by sending an email using the author’s official UWTSD University ID, to the HR departments, registrars and other official and authoritative points-of-contact.

4.17 Reliability

Consistency is one of the elements for ensuring reliability (Healy and Perry, 2000), enabling transformation of raw data into a meaningful form. As the present research contains a mixed methodology having both qualitative and quantitative approaches, different techniques were used as reliability checks.

The researcher had used similar instruments for three pieces of research, and this reflects the “*test re-test reliability*” technique. The questions asked of respondents were driven by Allen and Meyer (1997); Sanda and Sackey (2008); and Haque and Aston (2016) and, this itself is a source of consistency, reinforcing the ‘test re-test reliability’ principle

Cronbach’s alpha is applied, which is a statistical test for reliability, measuring the internal consistency of all items on the scale (Tavakol and Dennick, 2011). In other words, the objective of this reliability test is ensuring the items’ alignment on the scale. We obtained a *Cronbach’s alpha* value of 0.815, reflecting that the items on the scale are aligned. According to Tavakol

and Dennick (2011), a value greater than 0.70 obtained through “*Cronbach’s alpha*” technique reflects that the instrument is reliable. In this study, the obtained value confirms that the consistency is good. the “*parallel-forms reliability*” is another technique used in this study. The researcher created subsets of the large questions, asking one question in two different ways and administered the responses again to ensure consistency.

4.18 Validity

According to Patton (2001), a researcher ensures that the research is not only reliable but also valid. The considerations are subject to question if the researcher ensures reliability but fails to confirm validity in the research process (ibid). There are two types of validity: internal and external (Punch, 1998; Roberts and Traynor, 2006). Internal validity indicates that the causes addressed affect outcomes, minimizing unanticipated occurrences by means of construct, content and criterion validity (Punch, 1998; Roberts and Traynor, 2006). External validity concerns the extent which research findings will be applicable to other settings with with different sets of people (Punch, 1998: Roberts and Traynor, 2006).

Sekaran and Bougie (2012) argued that there is a trade-off between precision and confidence in the research. In other words, to increase one, the other has to be reduced to some extent. Nevertheless, Trochim (2006) explained that in qualitative studies, credibility, transferability, dependability and conformability are still important attributes of validity. Conformability indicates a likelihood that similar findings would emerge when particular types of research methods are applied again (ibid).

In the present thesis, the researcher took all precautionary measures to ensure that response biases were reduced. Hence, the researcher offered no monetary rewards, appreciation tokens or incentives, at any stage, to the participants or points-of-contacts. Furthermore, the subject and purpose of this study does not require any prior training beyond an appendix or technical terms and, therefore, it was not offered.

4.19 Summary:

The researcher has presented a research flow chart, which shows the steps of the present research.

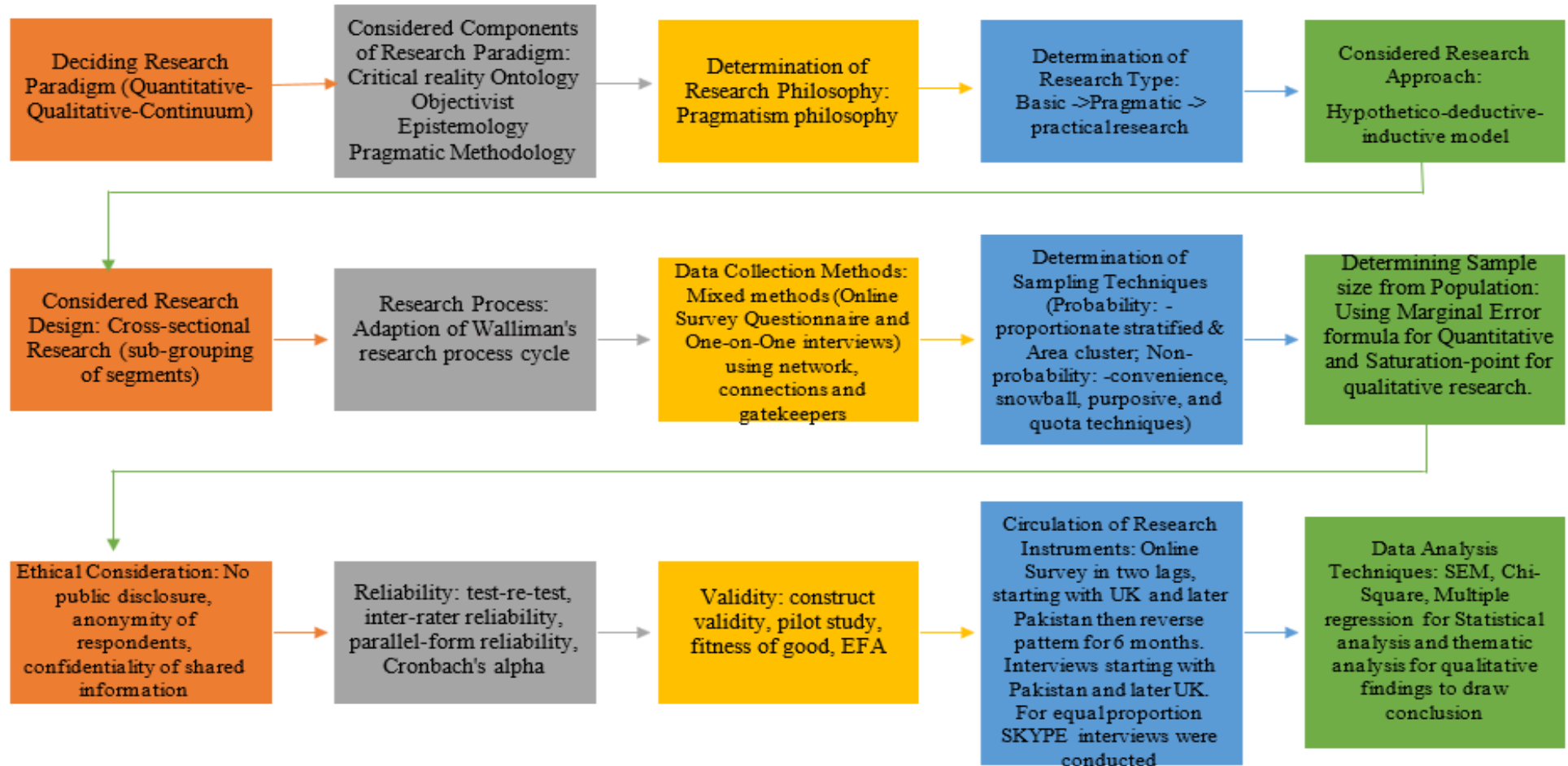


Figure 4. 3: Research flow chart of present thesis

The aforementioned steps show the entire process. After determining the ontological and epistemological stance in research, the pragmatic philosophy was undertaken to ensure that useful truth is explored using both quantitative and qualitative methods. The research is categorized as basic pragmatic research, aiming to advance an existing body of knowledge, using the hypothetico-deductive-inductive cross-sectional research design described earlier. To determine sample size, we used the marginal error formula and saturation-point by combining proportionate stratified, area cluster, purposive, quota, convenience, and referral sampling technique to draw logical conclusion.

The research instruments' validity and reliability were ensured through triangulation, pilot testing, demographic checks, Cronbach's alpha, goodness-of-fit and EFA. The research was completed in two lags starting, first the UK then Pakistan. Equal proportions of interviews followed. Later statistical techniques including SEM, Chi-Square and multiple regression was used while for qualitative findings we adopted thematic analysis.

Table 4. 3: Models applied to quantitative and qualitative analysis

Components	Techniques	Rationale	References
Reliability Test	Cronbach's alpha	Statistic used in social science for measuring the items are aligned on the scale, reflecting the research instrument adopted for research is fit for purpose. The threshold value of 0.7 or above research instrument is acceptable.	Sekaran & Bougie, (2012), Haque & Aston (2016) and Taber (2017)
Equal and Normal Distribution	Proportional analysis and Q-Q Plots	Proportional analysis is to ensure data is equally distributed among the considered sub-groups namely; gender, faculty and economy. Shapiro-Wilk test has a limitation in satisfying normality assumption when the number of respondents is excess to 300, thus, Q-Q plots are used for determining the normality of data distribution.	Altman & Bland (1995), Ghaesmi & Zahediasl (2012), Haque, Faizan and Cockrill (2017)
Fitness of the Model (Validity Test)	AGFI, CFI, GFI and RMSEA	For ensuring the SEM model's fitness, the explanatory power of Adjusted Goodness-of-Fit Index (AGFI) and	Shigeno (2017)

		Goodness-of-Fit Index (GFI) above 0.9 reflects good fit. Similarly, the value of Root Mean Square Error of Approximation (RMSEA) index less than 0.10 reflects the amount of freedoms divergence between the actual and estimated distribution of the model is acceptable whereas Comparative Fit Index (CFI) reflecting lower value indicates model is a good fit for the research project.	
Categorical Data Statistical Analysis	Chi-Square Test	For non-continuous (categorical) data, Chi-Square Test is used for measuring the statistical significance of variables of interest.	Pallant (2014)
Exploratory Factor Analysis (Validity test)	KMO & Bartlett Test, communalities and Total Variance Explained	The dimension reduction option of SPSS is used to measure the validity of construct and a threshold value of 0.7 in KMO & Bartlett reflects acceptable construct. The communalities extraction helps in checking the maximum likelihood whereas measuring of total variance explained is to assess the items on the scale explaining the validity of construct.	Gaskin & Happell (2014)
Partially Recursive Model	Structural Equation Modelling	This model is considered because independent variables are multi-directional and correlated with causal effects but endogenous variables among themselves have no direct effect. The model is effective in determining the total size effect of exogenous variables on endogenous variables.	Gaskin & Happell (2014) and Shigeno (2017)
Proportional Analysis	Bar diagram and proportional representation of Causes and Consequences of stress	Representing the causes and consequences of stress in diagram and percentages in order to have holistic outlook regarding the variation within the sub-attributes of stressors and symptoms.	Faizan & Haque (2015), Haque et al., (2017) and Zehra & Faizan (2017).
Statistical Test for measuring the impact of variables of interest	Multiple regression and Group Statistics	For continuous data, in the presence of sub-groups, within an interval variable through the variance predictor the multiple regression determines the relationship between dependent and independent variables more effectively.	Cleophas et al., (2000), Kariminalayer & Anuar (2012)

The above table sets out the statistical models and qualitative approach used in this research.

CHAPTER FIVE: RESEARCH FINDINGS AND DISCUSSION

5.1 Introduction

This chapter contains the results, findings and discussion, based on the primary data attained from a target audience at universities in the UK and Pakistan, for determining the impact of varying, occupational stressors affecting the organisational commitment of teaching and administrative staff. The chapter is divided into two parts,

- (a) survey results, and discussion of survey findings
- (b) interview findings and discussion

Lastly, the overall findings are discussed through Hofstede's cultural dimensions before summarizing the key findings.

5.2 Questionnaire - Results, Findings and Discussion

The questionnaire adapted Haque and Aston's (2016) "DAB (demographic, attitudinal, and behavioural) strategy" placing demographic variables (gender, age, faculty and experience) first, then warm-up question, then attitudinal questions and finally behavioural questions. This section is summarised as follows:

Table 5. 1: Features of quantitative section

Features of quantitative section		
Components	Techniques	Results
Reliability Test	Cronbach's alpha	Acceptable (=0.815)
Equal and Normal Distribution	Proportional analysis, Q-Q plot	Equal proportions in all dimensions Data normally distributed
Fitness of the Model (Validity Test)	AGFI, CFI, GFI, RMSEA	AGFI= 0.926 (acceptable) CFI=0.934 (acceptable) GFI=0.967 (acceptable) RMSEA=0.051 (acceptable) Fitness of model is good
Exploratory Factor Analysis (EFA) (Validity Test)	KMO & Bartlett's test; Communalities; Total Variance Explained	=8.15 (good and acceptable) All above > 0.3 (EFA acceptable) 60% variance explained by factors (EFA acceptable)
Partially Recursive Model	Structural Equation Modeling	Overall impact of the predictors on the AC, NC, & CC The Total Size effect of exogenous variables on endogenous variables (some variables have perfect while others have partial mediation)
Proportional Analysis	Bar diagram and proportional representation of Causes and consequences of stress	Results confirmed that overall causes and consequences vary in the public universities of the UK and Pakistan
Categorical Data Statistical Analysis	Chi Square Test	Causes and consequences of stress differ significantly in contrasting economies, genders, and faculties.
Statistical Test for measuring the impact of variables of interest	Multiple Regression & Group Statistics	The predictors impact differently on AC, NC, & CC in all three dimensions. There are variations in the visibility

5.2.1 Reliability

One of the essential aspects of the research is to ensure that the data is reliable, consistent and the test is free from measurement errors (De Bruin, 2010). Reliability indicates replicability and consistency over time (ibid). Studies with higher measurement error rates are less reliable (Moss, 2004; McMillan and Schumacher, 2006; Fraenkel and Wallen, 2009; De Bruin, 2010; Neuman, 2011). According to Sekran and Bougie (2010) and Hinton, McMurray and

Brownlow (2014), there are several ways of examining reliability; however, the most popular of all is Cronbach's coefficient alpha. It reflects the internal consistency among the items on a scale (Sekaran and Bougie, 2010; Hinton *et al.*, 2014; Haque *et al.*, 2017). A number of researchers have agreed that 0.7 is acceptable, 0.8 is good, while 0.9 is excellent (Hinton, *et al.*, 2014; Sekaran and Bougie, 2010; Wieland *et al.*, 2017). Hence, in this study, Cronbach's alpha test is considered for examining the reliability aspect.

Table 5. 2: Case Processing Summary

		N	%
Cases	Valid	404	99.0
	Excluded ^a	4	1.0
	Total	408	100.0

a. Listwise deletion based on all variables in the procedure.

Table 5. 3: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.807	.815	24

Our Cronbach's alpha is 0.807, which is above that which is a generally acceptable (0.807 > 0.7) value in social science research. It indicates that the internal consistency of the dimensions is good and will explain a large amount variance (Nunnally and Bernstein, 1994). In this sense this research is 'free from measurement error' to an acceptable degree.

5.2.2 Equal and Normal Distribution

According to Curran-Everett and Benos (2004), the normal distribution assumption should be satisfied in order to use parametric tests such as correlation, regression, t tests and analysis of variance (cited Ghasemi and Zahediasl, 2012). Although it is fine to consider normality and other assumptions to draw an accurate and reliable conclusion, with a large sample size, if the normality assumption is violated, it still need not be a major cause of concern (Pallant, 2007; Ghaesmi and Zahediasl, 2012). Elliott and Woodward (2007) argued that parametric procedures can be used despite data not being normally distributed. Moreover, Altman and Bland (1995) argued that when the sample contains hundreds of observations, then the researcher can ignore the normality assumption. Interestingly, Elliott and Woodward (2007),

suggested that despite the fact that the Central Limit Theorem itself suggests that a sample set, having 30 or higher observations, tends to be normal irrespective of the data shape, true normality is a myth and, therefore, normal Q-Q plots (visual normality) should be considered to ensure that data does not have serious deviations from normality (cited Ghasemi and Zahediasl, 2012). Indeed Haque *et al.*, (2017) have used Q-Q Plots for checking the normality assumption instead of relying on Shapiro-Wilk test, as their observations were in the hundreds. Since the present data has 408 observations, Haque *et al.*'s (2017) use of Q-Q plots is used for determining normality distribution.

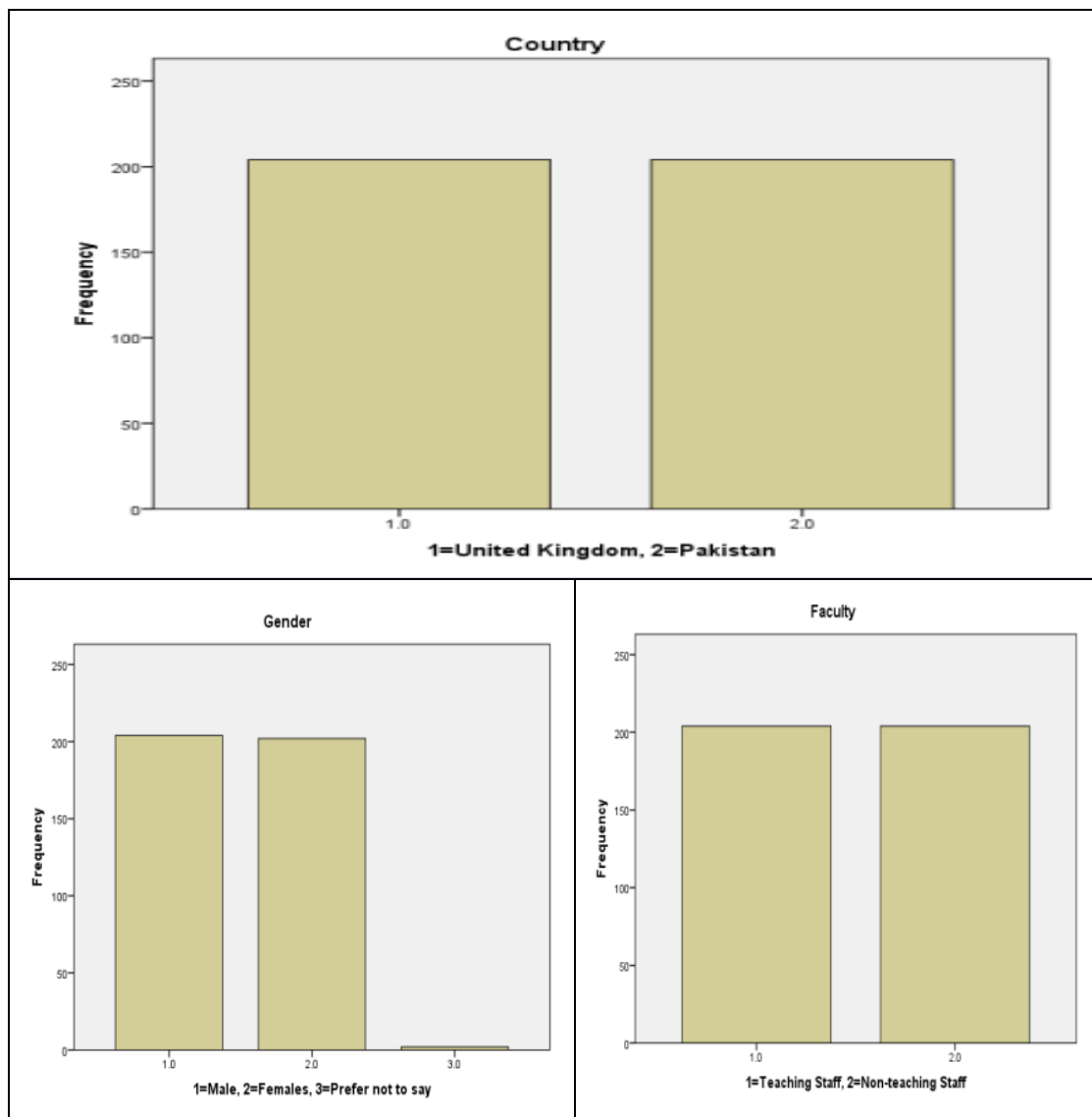


Figure 5. 1: Bar diagrams for equal distribution in terms of economy, gender, and faculty

Table 5. 4: Country Proportion: 1=United Kingdom, 2=Pakistan

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.0	204	50.0	50.0	50.0
2.0	204	50.0	50.0	100.0
Total	408	100.0	100.0	

The above figure contains the bar diagrams reflecting all three main dimensions for considering the equal distribution of the population. “Country” is the first aspect in which equal normal distribution is targeted and, according to the selection strategy, included 50% of the respondents from the UK and 50% from Pakistan. Additionally, the above table revealed an attainment of equal frequency and percentages in each country (*See table 5.4*).

Table 5. 5: Gender proportion: 1=Male, 2=Females, 3=Prefer not to say

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.0	204	50.0	50.0	50.0
2.0	202	49.5	49.5	99.5
3.0	2	.5	.5	100.0
Total	408	100.0	100.0	

The table above confirms that the percentages in terms of gender are almost equal (Males=50% and Females=49.5%) (*See table 5.5*).

Table 5. 6: Faculty: 1=Teaching Staff, 2=Non-teaching Staff

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.0	204	50.0	50.0	50.0
2.0	204	50.0	50.0	100.0
Total	408	100.0	100.0	

Third dimension is “faculty” in this study. The bar diagram reflects that there is an equal split (50% each) in teaching and non-teaching faculty. Additionally, the above table reflects that the frequency and percentage for both teaching and non-teaching staff are equally distributed (See table 5.6).

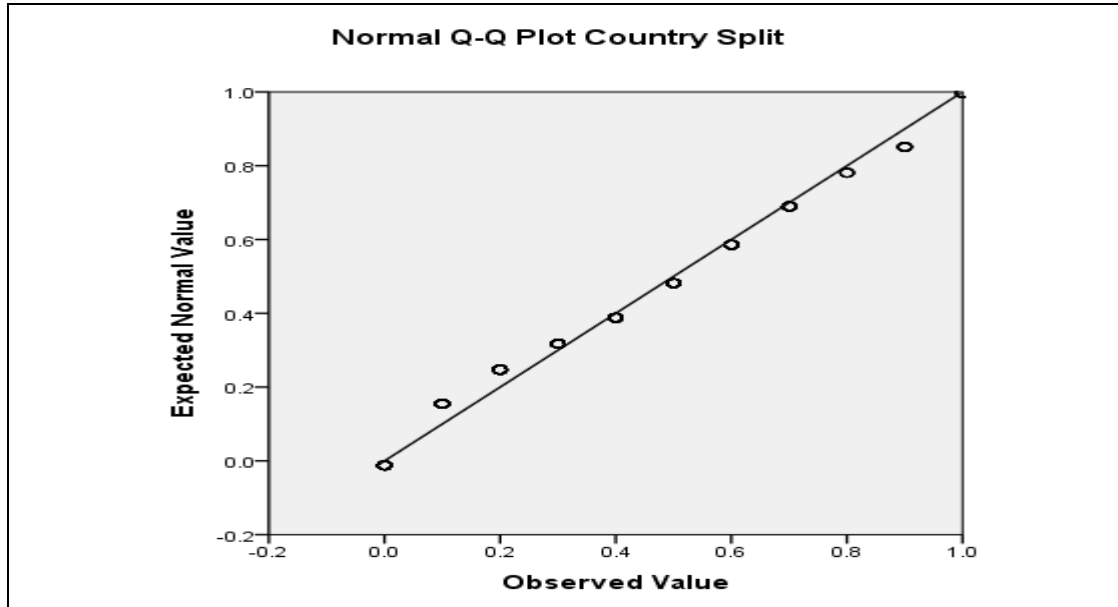


Figure 5. 2: Q-Q Plot for ‘Economies’

From the above Q-Q plot, it is evident that the observed values are almost on the line. There are some traces of small deviation but largely they are aligned. Thus, this shows that the present data satisfies the assumption of normal distribution. In other words, considering countries, the data is normally distributed (See figure 5.2).

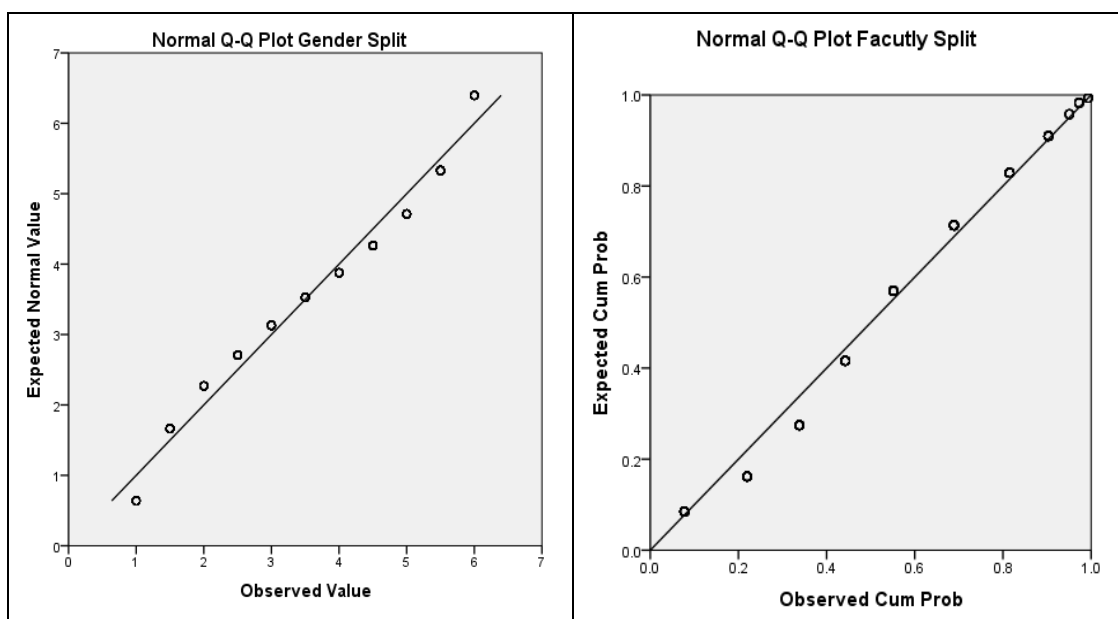


Figure 5. 3: Q-Q Plot for determining normality distribution in terms of gender and faculty.

Similarly, the Q-Q plot for gender and faculty was used to examine the normal distribution. As shown in the above figure, the observations are again close to the line (figure 5.2), confirming that gender and faculty both satisfy the normality distribution assumption.

The next step is determining the fitness of the model for Structural Equation Modeling (SEM). The two most powerful, statistical techniques are Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA) (Child, 1990; Kline, 1998). CFA is the first step to confirm that the factors developed through the measurement instrument are adequate (Child, 1990). In case the CFA technique does not confirm the factor structure, then EFA is the next step, as it enables the researchers to determine the factor structure in accordance with the responses of the participants (ibid). Gaskin (2012) argued that both CFA and EFA could be used for ensuring adequacy of measurement items. EFA determines the underlying construct for a set of measured items/variables (ibid). In SEM, different statistical tests are carried out for CFA in order to determine the adequacy of data model fit, namely: CFI, Chi-Square Test, RMSEA (ibid).

5.2.3 Fitness of the model

Table 5. 7: Test Statistics

χ^2 value	Degree of Freedom	P value	AGFI	AIC	CFI	GFI	RMSEA
135.918	4	0.000	0.926	368.248	0.934	0.967	0.051

The above table demonstrates the fitness of the SEM model through the explanatory power of AGFI (Adjusted Goodness-of-Fit Index) and GFI (Goodness-of-Fit Index), as the value of both (AGFI=0.926 and GFI=0.967) are above 0.9, indicating that the model is a good fit because the indicating criteria is that the explanatory power should lie between 0 and 1 (Shigeno, 2017). In the present thesis, the explanatory power is close to 1 and, therefore, the model is adequate. Additionally, the RMSEA (Root Mean Square Error of Approximation) index shows the amount of freedoms divergence between the actual and estimated distribution of the model (Shigeno, 2017). The incurred value is 0.051. Since, the value of 0.10 or less is judged as good fitness thus, the result satisfies the RMSEA condition for good fit. Furthermore, the CFI (Comparative Fit Index) explains goodness-of-fit of the model, while assuming if there is no correlation among the observed variables then how much model has developed and got better in comparison with the estimated independent model (Shigeno, 2017). Again, the indicating

criteria is a value between the 0 and 1 for being good fit and, in this case, the CFI derived value is 0.934 and, therefore, it reflects that model is a good fit.

5.2.4 Chi-Square Tests

In this section, the chi-square test explains the categorical data presented above, via proportional analysis, by considering three aspects, namely: economy, gender and faculty, in order to attain numerical significance regarding each distinctive attribute of the causes and consequences of stress.

Table 5. 8: Causes of Stress – Country

			Causes of Stress			Total
			Personal Factors	Organisational Factors	Environmental Factors	
Country	United Kingdom	Count	61	114	29	204
		Expected Count	69.5	101.5	33.0	204.0
		% within Country	29.9%	55.9%	14.2%	100.0%
	Pakistan	Count	78	89	37	204
		Expected Count	69.5	101.5	33.0	204.0
		% within Country	38.2%	43.6%	18.1%	100.0%
Total		Count	139	203	66	408
		Expected Count	139.0	203.0	66.0	408.0
		% within Country	34.1%	49.8%	16.2%	100.0%

Table 5. 9: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.128	2	.047
Likelihood Ratio	6.143	2	.046
Linear-by-Linear Association	.421	1	.516
N of Valid Cases	408		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 33.00.

Table 5. 10: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.123	.047
	Cramer's V	.123	.047
N of Valid Cases		408	

According to Pallant (2016), above 20% expected count violates the assumption and researchers should consider a 'Likelihood Ratio - sig-value' to determine results, whereas 20% or below reflects that the assumption is not violated and a Pearson Chi-Square sig-value should be considered for testing the hypothesis. Since 0% cells have less than 5 expected counts, the assumption, therefore, is not violated (See table 5.09). The Pearson Chi-square sig value is less than alpha ($=.047 < 0.05, p < \alpha$), which indicates that results are statistically significant. In other words, the null hypothesis is rejected as there is no significant relationship between contrasting economies and types of stressors. Moreover, the types of stressors are dependent on the type of economies. In addition, Pallant (2016) explained that criteria for considering Symmetric Measures depend on the number of items; for 2X2 researchers should consider the Phi Value, whereas for 2X3 or above, Cramer's V should be taken into consideration. Since, in this study it is 2X3, Cramer's V is, therefore, considered to explain the effect. Hence, 0.123 indicates that contrasting economies have a small to moderate effect on the types of causes and the effect is significant ($=.047 < 0.05, p < \alpha$) (See table 5.10). Thus, the present findings support Haque and Aston (2016) that there is a significant difference in the types of stressors affecting employees in contrasting economies.

Additionally, table 5.14 contains the proportion, which indicates that in the UK, organisational factors have scored higher than the expected counts (114 against 101.5), reflecting 55.9% in contrast to two other factors (personal factors=29.9% and environmental factors=14.2%) (See table 5.8). In Pakistan, organisational factors have a high proportion (43.6%), followed by personal factors (38.2%) and environmental factors (18.1%) (See table 5.8). Nevertheless, organisational factors emerge as a higher cause of stress in the UK than in Pakistan (55.9% against 43.6%). Conversely, Pakistan has higher mentions of personal factors (38.2% against 29.9%) and environmental factors (18.1% against 14.2%). Thus, to some extent, these findings support Haque and Aston (2016) and Haque *et al.*, (2018) but their findings were from the IT

sector of Pakistan and the UK, whereas the present results confirmed similar findings from the education sector of the two contrasting economies. Overall, organisational factors cause more stress to university employees; however, the types of stressors significantly differ for the two economies. We find that organisational factors cause more stress to the employees than do personal and environmental factors, supporting Haque *et al.*, (2016), while disconfirming Cicei (2012) and Fairbrother and Warn (2003) to a large extent. Nonetheless, the present findings confirmed that all these types of stressors exist and affect both teaching and administrative staff, supporting Stranks (2005).

Table 5. 11: Consequences of Stress – Country

			Consequences of Stress				Total
			Behavioural	Physical	Cognitive	Emotional	
Country	United Kingdom	Count	44	61	29	70	204
		Expected Count	45.0	51.5	40.0	67.5	204.0
		% within Country	21.6%	29.9%	14.2%	34.3%	100.0%
	Pakistan	Count	46	42	51	65	204
		Expected Count	45.0	51.5	40.0	67.5	204.0
		% within Country	22.5%	20.6%	25.0%	31.9%	100.0%
Total	Count	90	103	80	135	408	
	Expected Count	90.0	103.0	80.0	135.0	408.0	
	% within Country	22.1%	25.2%	19.6%	33.1%	100.0%	

Table 5. 12: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.784	3	.020
Likelihood Ratio	9.883	3	.020
Linear-by-Linear Association	.183	1	.669
N of Valid Cases	408		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 40.00.

Table 5. 13: Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal	Phi	.155
	Cramer's V	.020
N of Valid Cases	408	

Following Pallant's (2016) criteria of validity assumption, the consequences of stress in contrasting economies are examined above. Again, 0% cells have less than 5 expected counts and, thus, the assumption is not violated; thus, the Pearson Chi-Square is taken into consideration instead of a Likelihood Ratio for testing the hypothesis (*See* table 5.12). The sig-value of the Pearson Chi-square is less than alpha and, therefore, the results are statistically significant ($=.020 < 0.05, p < \alpha$). Based on the evidence, a null hypothesis is rejected, as a significant relationship is established between differing consequences of stress in contrasting economies. Cramer's V confirmed a small to moderate effect of the contrasting economies on varying consequences of stress ($=0.156$). Additionally, the effect is significant ($=.020 < 0.05, p < \alpha$). Therefore, the present findings report a striking difference to Haque *et al.*, (2016) and Haque *et al.*, (2018) because here it is evident that there is a statistically significant difference in the consequences faced by the employees in Pakistan and the UK.

Interestingly, in the UK, the expected count is less than that observed for emotional symptoms but the proportion is relatively high compared to the other symptoms, namely: physical, behavioural and cognitive ($34.3\% > 29.9\% > 21.6\% > 14.2\%$). On the other hand, the observed count for emotional symptoms is less than the expected count in Pakistan but the proportion (31.9%) is greater than the cognitive, behavioural and physical symptoms ($25\% > 22.5\% > 20.6\%$). Overall, the emotional symptoms are high in both countries (33.1%), followed by physical symptoms (25.2%), behavioural symptoms (22.5%) and, lastly, cognitive symptoms (19.6%). Since, emotional symptoms, and physical symptoms, are the two most frequently occurring symptoms, to some extent, the present findings have a striking difference to Haque *et al.*, (2016) and Haque *et al.*, (2018) in this regard, while they partially support Mark and Smith (2018). However, all consequences in this study have been confirmed to some extent, which means that Stranks (2005) is again supported.

Table 5. 14: Causes of Stress – Gender

			Causes of Stress			Total
			Personal Factors	Organisational Factors	Environmental Factors	
Category	Male	Count	41	118	45	204
		Expected Count	69.5	101.5	33.0	204.0
		%	20.1%	57.8%	22.1%	100.0%
	Female	Count	98	83	21	202
		Expected Count	68.8	100.5	32.7	202.0
		%	48.5%	41.1%	10.4%	100.0%
	Prefer not to say	Count	0	2	0	2
		Expected Count	.7	1.0	.3	2.0
		%	0.0%	100.0%	0.0%	100.0%
Total	Count	139	203	66	408	
	Expected Count	139.0	203.0	66.0	408.0	
	%	34.1%	49.8%	16.2%	100.0%	

Table 5. 15: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.348	4	.000
Likelihood Ratio	41.926	4	.000
Linear-by-Linear Association	32.238	1	.000
N of Valid Cases	408		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .32.

Table 5. 16: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.314	.000
	Cramer's V	.222	.000
N of Valid Cases		408	

Since the expected count is higher than 20%, the assumption is violated and, as a result, the likelihood ratio is considered instead of the Person Chi-Square for hypothesis testing (See table 5.15). In terms of gender, the likelihood ratio is statistically significant ($=0.000 < 0.05, p < \alpha$); hence, it indicates that there is strong evidence against a null hypothesis, as the results confirmed that the types of stressors vary for the contrasting genders. Cramer's V value reflects that the contrasting genders have a small to moderate effect on the types of stressors in the universities in both Pakistan and the UK ($=0.22$) (See table 5.16). Moreover, the effect of gender is statistically highly significant ($=.000 < 0.05, p < \alpha$). Thus, this study confirms the previous work of Haque and Aston (2016) and Haque *et al.*, (2016): the causes of stress differ for males and females.

Interestingly, organisational factors have a high effect by gender in comparison with personal and environmental factors ($49.8\% > 34.1\% > 16.2\%$). However, the proportional analysis revealed that organisational stressors cause more stress to males than to females (57% against 41%), whereas females, report to a greater extent that personal factors cause them higher stress (48.5% against 20.1%) (See table 5.14). This finding disconfirms Kumasay *et al.*, (2014) and Fairbrother and Warn (2003), while supporting Haque and Aston (2016) and Haque *et al.*, (2016), and are strikingly different to Cicei (2012) and of Fairbrother and Warn (2003).

Nevertheless, the existence of all types of stressors is confirmed in the university environment, which affect employees confirming Stranks (2005).

Table 5. 17: Consequences of Stress – Gender

			Consequences of Stress				Total
			Behavioural	Physical	Cognitive	Emotional	
Category	Male	Count	72	77	18	37	204
		Expected Count	45.0	51.5	40.0	67.5	204.0
		%	35.3%	37.7%	8.8%	18.1%	100.0%
	Female	Count	18	25	61	98	202
		Expected Count	44.6	51.0	39.6	66.8	202.0
		%	8.9%	12.4%	30.2%	48.5%	100.0%
	Prefer not to say	Count	0	1	1	0	2
		Expected Count	.4	.5	.4	.7	2.0

	%	0.0%	50.0%	50.0%	0.0%	100.0%
Total	Count	90	103	80	135	408
	Expected Count	90.0	103.0	80.0	135.0	408.0
	%	22.1%	25.2%	19.6%	33.1%	100.0%

Table 5. 18: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	112.402 ^a	6	.000
Likelihood Ratio	119.045	6	.000
Linear-by-Linear Association	84.937	1	.000
N of Valid Cases	408		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .39.

Table 5. 19: Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Phi	.525	.000
Cramer's V	.371	.000
N of Valid Cases	408	

The Chi-Square tests revealed that the assumption is violated and, thus, Pallant's (2016) argument is considered by taking the Likelihood ratio into consideration for testing the hypothesis because the expected count has exceeded 20% (Table 5.18). The sig-value is less than the alpha and, therefore, statistically there is strong evidence against a null hypothesis ($=0.000 < 0.05, p < \alpha$). The consequences of stress is thus found to differ between males and females in both countries, disconfirming Haque and Aston (2016), Haque *et al.*, (2016) and Haque *et al.*, (2018) which suggested that the consequences of stress do not vary for males and females.

Cramer's V value indicates that gender has a small to moderate effect on the consequences of stress ($=0.371$). Moreover, the sig-value is lower than the alpha value and, hence, it is confirmed that the effect is significant ($=0.000 < 0.05, p < \alpha$).

It is evident that males report a high level of physical symptoms (37.7%) and behavioural symptoms (35.3%) attributed to stress, while females exhibit emotional (48.5%) and cognitive (30.2%) symptoms. Taking into account each symptom, it is evident that males, in contrast to females, exhibit a higher level of physical symptoms (37.7% against 12.4%) and behavioural symptoms (35.3% against 8.8%), whereas they exhibit lower emotional symptoms (18.1% against 48.5%) and cognitive symptoms (8.8% against 30.2%). Overall, both the physical and psychological effects of stress are evident in this study supporting Stranks (2005), Haque and Aston (2016), Haque *et al.*, (2016), Haque *et al.*, (2018) and Mark and Smith (2018).

Table 5. 20: Causes of Stress – Faculty

			Causes of Stress			Total
			Personal Factors	Organisational Factors	Environmental Factors	
Category	Teaching	Count	58	128	18	204
		Expected Count	69.5	101.5	33.0	204.0
		%	28.4%	62.7%	8.8%	100.0%
	Non-teaching	Count	81	75	48	204
		Expected Count	69.5	101.5	33.0	204.0
		%	39.7%	36.8%	23.5%	100.0%
Total		Count	139	203	66	408
		Expected Count	139.0	203.0	66.0	408.0
		%	34.1%	49.8%	16.2%	100.0%

Table 5. 21: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.280 ^a	2	.000
Likelihood Ratio	31.972	2	.000
Linear-by-Linear Association	.255	1	.614
N of Valid Cases	408		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 33.00.

Table 5. 22: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.277	.000
	Cramer's V	.277	.000
N of Valid Cases		408	

Table 5.20 shows an expected count less than 20% and, hence, the assumption is met, and the Pearson Chi-Square will be considered for testing the analysis. The sig-value is less than the alpha value and, therefore, there is statistically strong evidence against a null hypothesis ($=0.000 < 0.05, p < \alpha$). In other words, the causes of stress vary for teaching and administrative staff. The Cramer's V value supports this, so we have strong evidence against a null hypothesis, and confirmation that the types of stressors vary by gender. Cramer's V value reflects that a small to moderate effect is confirmed among the variables of interest ($=0.27$) and the effect is statistically significant ($=.000 < 0.05, p < \alpha$). This is a new finding which to some extent supports Sackey and Sanda (2008), Sackey and Sanda (2011), Haque and Aston (2016), Haque *et al.*, (2016), and Haque *et al.*, (2018).

A detailed analysis was carried out to assess the variation of stressors in the proportions within the contrasting faculties. Table 5.20 shows that teaching staff, in contrast to administrative staff, are most frequently affected by organisational stressors (62.7% against 36.8%), while personal factors cause higher stress to administrative staff (39.7%). Interestingly, non-teaching staff, are comparatively more highly affected by environmental factors (23.5% against 8.8%). There is no conclusive evidence from previous studies which evaluated different causes of stress among teaching and non-teaching staff; however, as academics are more involved in conceptual work while administrators are more involved in operational tasks, the study, to some extent, supports Sackey and Sanda (2008), Sackey and Sanda (2011), Haque and Aston (2016), Haque *et al.*, (2016), Haque and Oino (2017), Haque *et al.*, (2018). Since all types of stressors are reported in the universities, our findings also confirm Kumasey *et al.*, (2014), Stranks (2005), and Fairbrother and Warn (2003) who argue similarly.

Table 5. 23: Consequences of Stress – Faculty

			Consequences of Stress				Total
			Behavioural	Physical	Cognitive	Emotional	
Categories	Teaching	Count	53	36	42	73	204
		Expected Count	45.0	51.5	40.0	67.5	204.0
		%	26.0%	17.6%	20.6%	35.8%	100.0%
	Non-teaching	Count	37	67	38	62	204
		Expected Count	45.0	51.5	40.0	67.5	204.0
		%	18.1%	32.8%	18.6%	30.4%	100.0%
Total	Count	90	103	80	135	408	
	Expected Count	90.0	103.0	80.0	135.0	408.0	
	%	22.1%	25.2%	19.6%	33.1%	100.0%	

Table 5. 24: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.271 ^a	3	.004
Likelihood Ratio	13.433	3	.004
Linear-by-Linear Association	.183	1	.669
N of Valid Cases	408		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 40.00.

Table 5. 25: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.180	.004
	Cramer's V	.180	.004
N of Valid Cases		408	

As the expected count is less than 20%, the Pearson Chi-Square is considered for testing the hypothesis instead of a Likelihood Ratio. Interestingly, the sig-value is less than the alpha ($=0.004 < 0.05, p < \alpha$, Table 5.24). Thus, there is strong evidence against the null hypotheses

that consequences of stress do not differ for teaching and administrative staff in contrasting economies. Additionally, Cramer's V value revealed that the effect is small to medium ($=0.18$) and it is significant ($=0.004 < 0.05, p < \alpha$). Hence, the consequences of stress vary for teaching and non-teaching staff working at universities in Pakistan and the UK. Again, there is no direct evidence regarding the differing consequences for teaching and non-teaching staff but considering the distinctive faculties, the types of effect reported do differ confirming Haque and Aston (2016), Haque *et al.*, (2016), Haque and Oino (2017) and Haque *et al.*, (2018).

The consequences of stress vary for teaching and non-teaching staff (Table 5.23). It is evident that emotional symptoms are reported at a slightly higher among the teaching staff than by administrative staff (35.8% against 30.4%). Interestingly, non-teaching staff also report physical symptoms in greater proportions (32.8% against 17.6%). Moreover, behavioural and cognitive symptoms are reported at higher rates among teaching staff compared with administrative staff (26.0% against 18.1%) and (20.6% against 18.8%) respectively.

Overall, emotional symptoms are higher than the other symptoms. Nevertheless, psychological, and physiological symptoms, are evident supporting Stranks (2005) and Mark and Smith (2018).

When considering all three dimensions for causes and consequences of stress, the present study found marginally significant different causes of stress in the two countries, whereas the differences are highly significantly between males and females. It is also evident that the reported consequences of stress are highly statistically significant in terms of gender, while also statistically significant in terms of both the country and staff categories.

5.2.5 Exploratory Factor Analysis

Table 5. 26: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.813
Bartlett's Test of Sphericity	Approx. Chi-Square	5926.718
	Df	231
	Sig.	.000

Using the dimension reduction option through SPSS, the items on the scale were checked to ensure the underlying construct for a set of measured variables. The obtained KMO value is 0.813, which is greater than 0.7, reflecting good sampling adequacy. Furthermore, the

extractions of communalities through maximum likelihood were checked as the second step in the process. According to Gaskin and Happell (2014), the extraction values above 0.3 indicate a good likelihood, whereas the aggregate of matrix patterns for each factor scoring over 0.7 indicate the adequacy and reliability towards goodness-of-fit.

Table 5. 27: Communalities

	Initial	Extraction
Rate Occupational Therapist Representation	.761	.784
Rate Occupational Therapist Representation at University	.853	.943
Impact of Occupational Therapist in Sustenance of Human Capital	.831	.862
Occupational therapist offers solutions to improves working efficiency	.876	.957
Occupational therapist address concerns to improve organisational commitment]	.847	.869
Occupational therapist counselling is effective in reducing different types of stress	.785	.798
Personal Strain – I	.610	.531
Personal Strain II	.499	.541
Personal Strain III	.547	.589
Perceived Job Stress I	.586	.553
Perceived Job Stress II	.523	.453
Perceived Job Stress III	.582	.633
Affective Commitment – I	.638	.776
Affective Commitment II	.545	.547
Normative Commitment I	.488	.488
Normative Commitment II	.543	.675
Continuance Commitment I	.510	.579
Continuance Commitment II	.512	.477
Personal Resources I	.624	.664
Personal Resources II	.621	.694
Social Support I	.588	.649
Social Support II	.546	.420

Extraction Method: Maximum Likelihood.

Since all of the extractive values are over 0.3, this reflects that under the communalities’ aspect, the measurement variables have met the likelihood criteria. The next step is assessing the

cumulative percentage of the extracted items in order to measure the total variance explained by how many items are considered on the scale.

Table 5. 28: Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.351	24.324	24.324	4.718	21.446	21.446	3.480
2	4.331	19.687	44.011	1.241	5.641	27.087	3.565
3	2.654	12.065	56.076	3.790	17.226	44.313	3.656
4	1.627	7.394	63.470	2.711	12.323	56.636	3.812
5	1.328	6.036	69.506	1.297	5.898	62.534	2.944
6	1.114	5.066	74.572	.726	3.300	65.834	2.635
7	.899	4.086	78.658				
8	.639	2.904	81.562				
9	.608	2.765	84.327				
10	.517	2.348	86.675				
11	.462	2.102	88.777				
12	.362	1.645	90.421				
13	.339	1.543	91.964				
14	.301	1.368	93.332				
15	.264	1.202	94.534				
16	.254	1.157	95.690				
17	.229	1.042	96.732				
18	.211	.960	97.693				
19	.182	.827	98.520				
20	.155	.706	99.227				
21	.092	.418	99.644				
22	.078	.356	100.000				

Extraction Method: Maximum Likelihood.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

The above table reflects that the cumulative percentage for six items indicates 65% of the items. According to Gaskin and Happell (2014), 50% is the minimum required in order to confirm that the items on the scale are explaining the factors. As evident, the above table reflects 65.83% and, therefore, this indicates that the total variance is explained by the items on the scale. Additionally, the correlation table reflects that the non-redundant residuals for 22 items are 4.0% (0.04), which is less than 0.05 (*See Appendix C*). The correlation is well within the adequacy requirements.

Lastly, the pattern matrix was evaluated and the results revealed that the sum of each considered factor scored over 0.7 indicating that the factors are adequate in explaining the variance (*see Appendix C*).

5.2.6 Partially Recursive Model

The endogenous (dependent) variables in this study are organisational commitment, affective commitment, normative commitment and continuance commitment, whereas the exogenous variables in questions are: personal strain, personal resources, perceived job stress, social support and role/effectiveness of the occupational therapist. The reason that the present model is categorized as a partially recursive model is because all of the causal effects are multi-directional and correlated but there is no direct effect among the endogenous variables. In other words, the independent variables have covariance, and having directional path, but there is no direct effect of one dependent variable on the other dependent variables. Below is the model drawn by using AMOS SPSS:

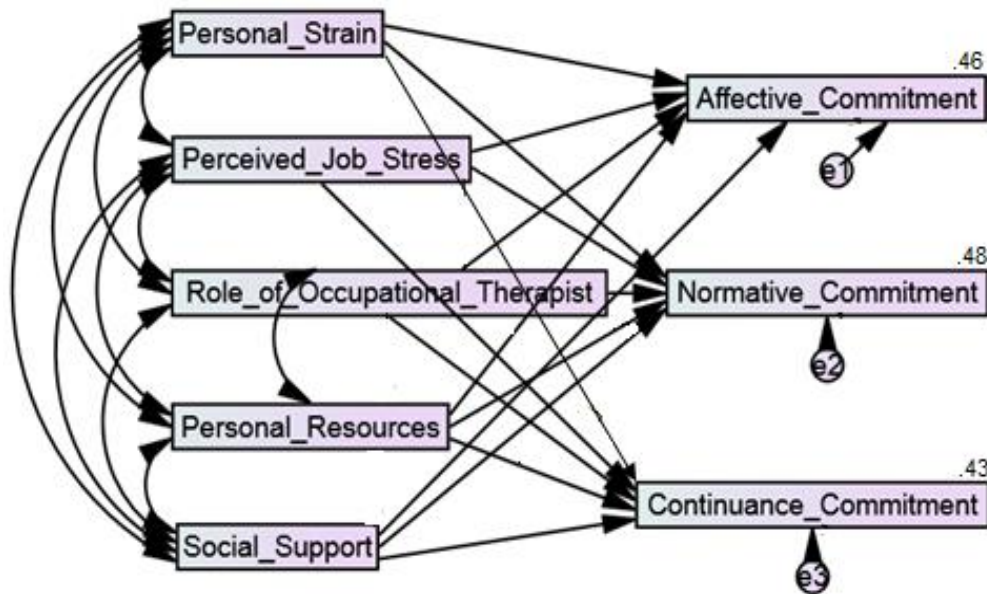


Figure 5. 4: Partially Recursive Model demonstrating the relationship.

The above figure represents the causal effect of the multivariable on the antecedents of organisational commitment (affective, normative and continuance commitment). In other words, it is the multiple linear regressions with different “variables in question” affect the dependent variables. Moreover, the variables show a direct impact on each other and cause an indirect effect on the dependent variables.

For instance, personal strain has a direct effect on perceived job stress, the role of occupational therapist, personal resources and social support, while through these all of the variables in question have an indirect effect on affective commitment, normative commitment and continuance commitment. Similarly, all other variables have a direct effect on the other “variables in question” and an indirect affect through “variables in question” on the dependent variables (AC, NC and CC). The above figure also reflects that a 46% variability in affective commitment is explained by the variability in the number of exogenous variables ($R^2=0.46$). Moreover, the variability/differences explained by the model through exogenous variables for the variability in the normative commitment is 48% ($R^2=0.48$), whereas the 43% variability in continuance commitment is explained by the differences in the model ($R^2=0.43$).

In order to assess the total effect of each exogenous variable on the individual endogenous variables, the following formula is used for the calculation:

$$YIn = \beta a + (\beta b \times \beta c)$$

Thus, below the formula for one exogenous variable, “personal strain”, is stated to explain the calculation, whereas the rest of the formulae are presented in Appendix B.

Total Effect of Personal Strain on AC through perceived job stress: $Y1a_1 = \beta_1 + (\beta_2 \times \beta_3)$

Total Effect of Personal Strain on AC through role of OT: $Y1b_1 = \beta_1 + (\beta_4 \times \beta_5)$

Total Effect of Personal Strain on AC through personal resources: $Y1c_1 = \beta_1 + (\beta_6 \times \beta_7)$

Total Effect of Personal Strain on AC through social support: $Y1d_1 = \beta_1 + (\beta_8 \times \beta_9)$

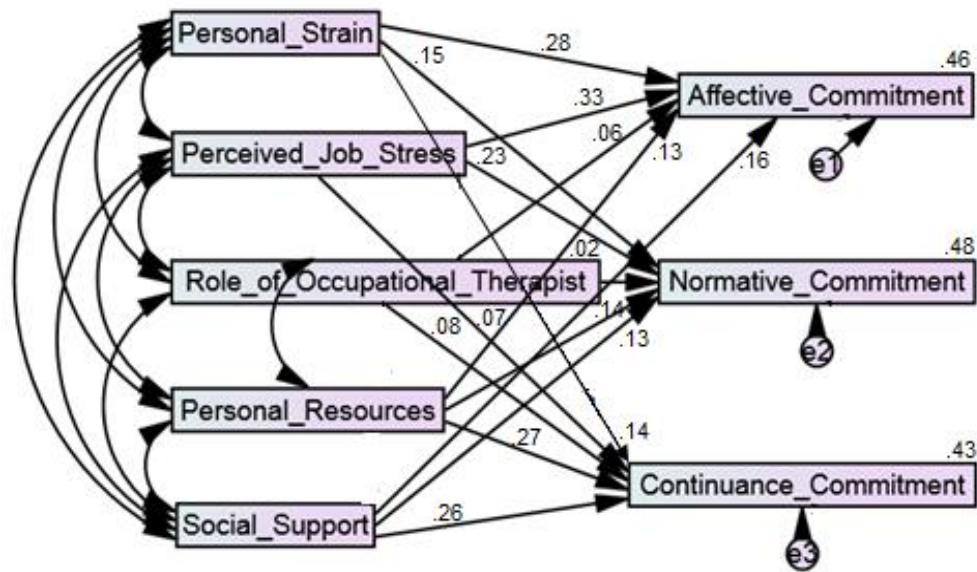


Figure 5. 5: The directional path of direct effect of exogenous variables on endogenous variables.

The above figure reflects the regression of the exogenous variables on the endogenous variables. As evidenced, the personal strain has 0.28 regression on the AC, which is a direct effect ($\beta_1=0.28$) but personal strain is interlinked with other exogenous variables too, indicating that personal strain has 0.68 direct effect on perceived job stress ($\beta_2=0.68$) and perceived job stress also has a 0.33 direct effect on affective commitment ($\beta_3=0.33$). Hence, the indirect effect of personal strain on affective commitment is 0.22 ($\beta_2 \times \beta_3$). Considering only personal strain, the total effect on the affective commitment is 0.50. [$Y1a_1 = \beta_1 + (\beta_2 \times \beta_3)$]. However, the indirect effect of personal strain via the role of the occupational therapist is 0.016 ($\beta_4 \times \beta_5$), while the total effect of personal strain through the role of the occupational therapist on affective commitment is 0.29 [$\beta_1 + (\beta_4 \times \beta_5)$, See Appendix B for further details]. The indirect effect of personal strain via personal resources is 0.049 ($\beta_6 \times \beta_7$) and the total effect via personal resources is 0.32 [$\beta_1 + (\beta_6 \times \beta_7)$, See Appendix B]. Lastly, the indirect

effect of personal strain through social support is 0.014, while the total effect via it is 0.29 [$\beta_1 + (\beta_8 \times \beta_9)$, *See Appendix B*]. Hence, the sum of the standardized total effect of personal strain on the AC is 0.288, which is also evident in the table 10 as a standardized estimate (*See Appendix B*).

Personal strain also has a direct and indirect effect on normative commitment. The direct effect is 0.15 on NC, while the indirect effect is 0.156 and total direct effect is 0.30 via perceived job stress (*See Appendix B*). Moreover, personal strain's indirect effect on NC via the role of the occupational therapist is 0.005 and the total effect is 0.155 (*See Appendix B*). The indirect effect via personal resources is 0.05 and the direct effect is 0.20 (*See Appendix B*). Lastly, via social support, personal strain effects indirectly NC 0.011 and the total effect is 0.16 (*See Appendix B*). Thus, the standardized total effect of personal strain on NC is 0.148. Similarly, personal strain has both a direct and indirect effect on continuance commitment. The direct effect on CC is 0.047, while via perceived job stress it is 0.16 and, therefore, the total effect of personal strain on CC is 0.18 (*See Appendix B*). Through the role of the occupational therapist, the indirect effect of personal strain on CC is 0.02, while the total direct effect is 0.166 (*See Appendix B*). Furthermore, via personal resources, the indirect effect of personal strain on CC is 0.102 and the total direct effect is 0.24 (*See Appendix B*). Moreover, through social support, the indirect effect is 0.024 and the total direct effect of personal strain on continuance commitment is 0.16, whereas the standardized total effect of personal strain on CC is 0.146 (*See Appendix B*).

In a similar manner, the direct, indirect and total effect of all of the exogenous variables (personal strain, perceived job stress, role of occupational therapist, personal resources and social support) on AC, NC and CC has been determined in the partially recursive model and results showed that the range of these variables' standardized total effect lies between 0.03 to 0.267 (*See Appendix B*). These values are also shown under the standardized estimates in table 5.10. Thus, considering the totality aspect, all of the variables in question affect the endogenous variables to some extent. Interestingly, in this model, some of the exogenous variables are predictors, and the outcome, indicating a mediating role. Hence, mediation is also determined in this research. Interestingly, the total effect of the predictors is higher on AC in comparison to NC and CC. The majority of the variables β_n , after inclusion of the error (e_n), become non-significant, which reflects partial mediation. Some of such variables are personal strain via perceived job stress and the role of the occupational therapist in relation to AC, while perfect mediation is evident for personal strain via personal resources and social support in relation to

AC (*see* Appendix B). Nevertheless, both partial and perfect mediation being among the variables indicates that the considered partially recursive model confirms previous empirical research to a certain extent, such as House, 1981; Hurlbert, 1991; Schwarzer and Leppin (1991); Park *et al.*, 2004; Mark and Smith (2008), Sackey and Sanda, 2011; Kumasey *et al.*, 2014; Haque and Yamoah (2014), Haque and Aston (2016); Haque *et al.*, (2016), Haque and Oino (2017), and Haque *et al.*, (2018) by confirming that there is correlation, and a total effect of exogenous variables on the endogenous variables.

Table 5. 29: Critical Ratio and standardized path estimates

			Estimate	S.E.	C.R	P
Affective Commitment	<---	Personal Strain	.228	.070	3.257	***
Affective Commitment	<---	Perceived Job Stress	.267	.070	3.814	***
Affective Commitment	<---	Role of Occupational Therapist	.071	.042	1.690	.293
Affective Commitment	<---	Personal Resources	.137	.065	2.107	.017
Affective Commitment	<---	Social Support	.146	.066	2.215	.039
Normative Commitment	<---	Personal Strain	.148	.059	2.508	.011
Normative Commitment	<---	Perceived Job Stress	.224	.059	3.796	***
Normative Commitment	<---	Role of Occupational Therapist	.033	.036	.691	.909
Normative Commitment	<---	Personal Resources	.157	.055	2.854	.018
Normative Commitment	<---	Social Support	.124	.056	2.214	***
Continuance Commitment	<---	Personal Strain	.146	.057	2.587	.030
Continuance Commitment	<---	Perceived Job Stress	.066	.051	1.294	.126
Continuance Commitment	<---	Role of Occupational Therapist	.098	.069	1.420	.194
Continuance Commitment	<---	Personal Resources	.224	.060	3.733	***
Continuance Commitment	<---	Social Support	.256	.061	4.196	***
* $p < 0.05$						

The next step was the extraction of the model by viewing the standardized and unstandardized results of the exogenous variables in relation to the endogenous variables. Since, AMOS gives two separate tables by giving the standardized estimates separately, while the unstandardized estimates with the standard error (S.E), critical ratio (C.R) and P-value, the researcher, therefore, replaced the standardized estimates with the unstandardized ones in order to explain

the results from one table. The t-value is 1.96 is a cut-off value and using Gaskin's (2012) steps, the researcher explained the derived value by dividing the standard estimates by the standard error (S.E.) in order to obtain the critical ratio (C.R). A critical value greater than 1.96 reflects a significant relationship between the variables of interest (Gaskin, 2012). Personal strain highly significantly affects overall affective commitment ($p\text{-value} = 0.0000 < 0.05, p < \alpha$; Table 5.29). Moreover, personal strain has a significant impact on overall normative commitment ($=0.011, p < \alpha$; Table 5.29) and continuance commitment ($=0.030, p < \alpha$; Table 5.29). Since the critical ratio for all three antecedents of organisational commitment are positive and greater than the t-value, there is, therefore, a positive link between the variables of interest ($C.R_A > t\text{-value}, 3.257 > 1.96, C.R_B = 2.508 > 1.96, \text{ and } C.R_C = 2.587 > 1.96$; Table 5.11). Thus, this study confirms the earlier work of Haque and Aston (2016) that personal strain affects the organisational commitment of employees, whereas it partially supports the notion of Brannon and Feist (1992) and Sackey and Sanda (2011) that personal strain exists in organisational settings affecting the commitment of the employees in a varying manner.

Perceived job stress is another variable in relation to the antecedents of organisational commitment considered in this research. The results revealed that, statistically, it has a highly significant effect on the affective commitment ($=0.0000, p < \alpha$; Table 5.29) and normative commitment ($=0.030, p < \alpha$) while non-significant impact on the continuance commitment of the university staff ($=0.126, p > \alpha$). Furthermore, the critical ratio for AC ($C.R_D > t\text{-value}, 3.814 > 1.96$) and NC ($C.R_E > t\text{-value}, 3.796 > 1.96$; Table 5.29) hence these antecedents have positive linkage with perceived job stress. Interestingly, present findings indicate that the continuance commitment is not affected by the perceived job stress hence this has strikingly different from the recent work of Gok, Akgunduz, and Alkan (2017). Conversely, the present findings support van Zyl *et al.*, (2013), in terms of affective commitment, and Zehra *et al.*, (2017) when considering normative commitment. Nevertheless, both the aforementioned studies were carried out in the healthcare sector, while the present findings offer the same evidences from the education sector in contrasting economies.

The effect of the role of the occupational therapist on the dimensions of organisational commitment in the public universities of Pakistan and the UK was examined in this study. Interestingly, the results revealed that it has no statistically significant impact on AC ($=0.1690, p > \alpha$; Table 5.29), NC ($=0.691, p > \alpha$; Table 5.11), and CC ($=0.194, p > \alpha$; Table 5.29). Thus, this study partially opposes Haque and Aston (2016) which states that the role of the occupational therapist is significant in determining the organisational commitment of

employees. Nonetheless, Haque and Aston (2016) was related to the IT sector, whereas present findings are from the education sector. Additionally, the present findings support Haque and Aston (2016) and Haque *et al.*, (2016) to a large extent in that there are low traces of the effectiveness and use of the professional occupational therapist from developing economies in contrast to developed ones.

Personal resources interlinked with organisational commitment, were examined in this study and results revealed that, it has highly statistically significant effect on the CC ($=0.000, p < \alpha$; Table 5.29), whereas it has a significant positive effect on the AC ($=0.017, p < \alpha$; Table 5.29) and NC ($=0.018, p < \alpha$; Table 5.11). Furthermore, the critical ratio of the three distinctive attributes of organisational commitment is again shown to be positive and greater than the t-value ($C.R_J > t\text{-value}, 2.107 > 1.96, C.R_K = 2.854 > 1.96, \text{ and } C.R_L = 3.733 > 1.96$). Therefore, the results confirm that there is a positive linkage between the considered variables. The present findings partially support Schwarzer and Leppin (1991) and Sackey and Sanda (2011). Interestingly, the findings support Haque and Aston (2016) in terms of personal resources significantly affecting normative and continuance commitment but differ from the authors' finding of personal resources having no significant role in improving the affective commitment of the employees.

The results revealed that social support affects the antecedents of organisational commitment of university staff in the UK and Pakistan significantly. As evident, social support significantly affects AC ($=0.039, p < \alpha$; Table 5.29), whereas highly statistically significant affects NC ($=0.0000, p < \alpha$; Table 5.10), and CC ($=0.000, p < \alpha$; Table 5.29). Additionally, the results also revealed that the critical ratio for the respective dimensions of organisational commitment, namely: AC, NC and CC are positive, and greater than the t-value and, thus, it shows that there is a positive linkage between the variables of interest ($C.R_M > t\text{-value}, 2.215 > 1.96, C.R_N = 2.214 > 1.96, \text{ and } C.R_O = 4.196 > 1.96$; Table 5.29). The present findings support, to a large extent, Haque and Aston (2016), Haque *et al.*, (2017), Zehra *et al.*, (2017), Zehra and Faizan (2017), Haque and Oino (2017), Haque *et al.*, (2018), while partially supporting Sackey and Sanda (2011), Cicei (2012), and Kumasay *et al.*, (2014).

However, the above partially recursive model and SEM provided significant findings about the multivariate but the present study is relatively complex in nature, as it also contains categorical data and distinctive dimensions, such as economy, gender, faculty, types of stressors causing stress and types of consequences because of those stressors. For this reason, the researcher, instead of relying on one technique, has used several different tools and techniques to

investigate the variables of interest. The above test did not reflect the causes and consequences of stress, while which is also one of the most important objectives of this research to be evaluated. Hence, a different approach is used by the researcher.

5.2.7 Proportional Analysis

The causes and consequences of stress identified earlier by Stranks (2005) and later explored by Haque and Aston (2016), Haque *et al.*, (2017), Nair *et al.*, (2017), Zehra and Faizan (2017), and Haque *et al.*, (2018), were examined and presented through proportional analysis (bar diagram and percentages) to give an overall outlook.

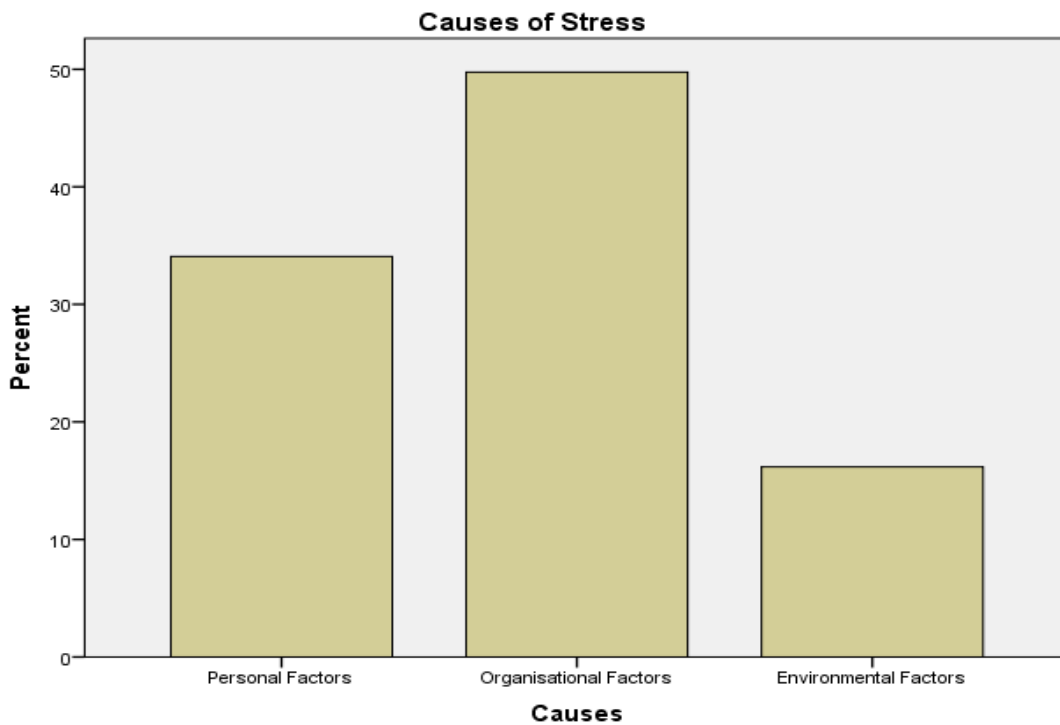


Figure 5. 6: Bar diagram containing proportions of causes of stress.

Table 5. 30: Causes of stress

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Personal Factors	139	34.1	34.1	34.1
Organisational Factors	203	49.8	49.8	83.8
Environmental Factors	66	16.2	16.2	100.0
Total	408	100.0	100.0	

The above figure and table reflect that, overall, organisational factors most frequently cause stress to university staff in both the UK and Pakistan. As is demonstrated above, an overall 49.8% of the total number of respondents identified organisational stressors, followed by personal stressors and lastly environmental factors as causes of stress (*See table 5.30*). Thus, this study supports Haque *et al.*, (2018) to a certain extent.

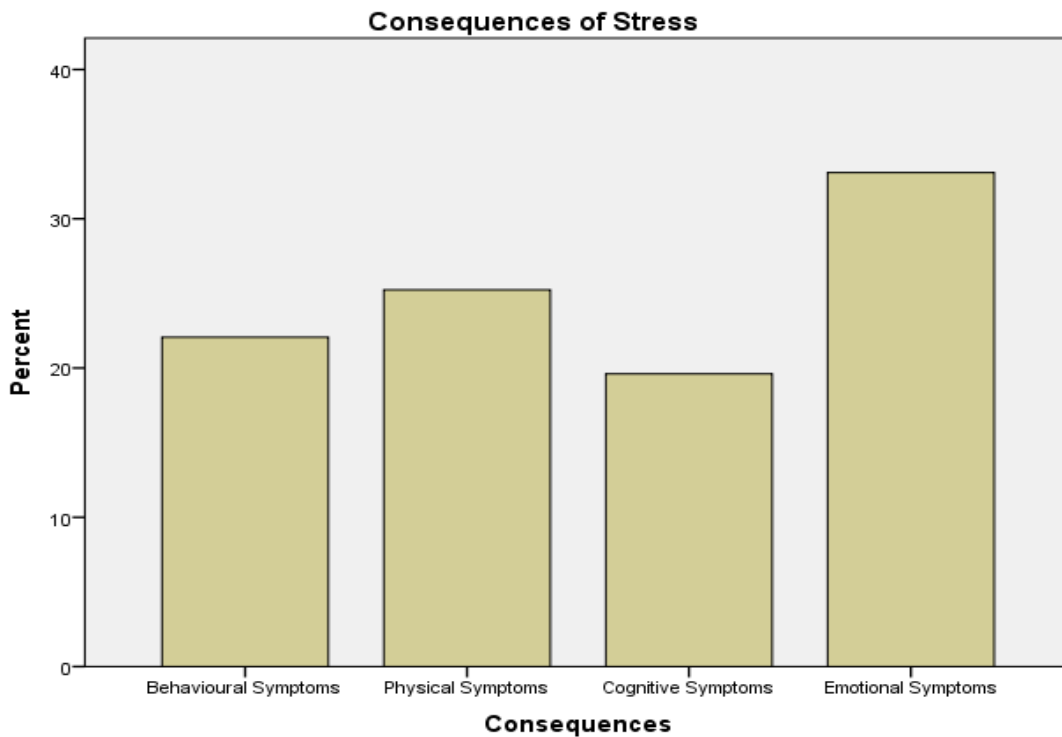


Figure 5. 7: Bar diagram containing proportions of consequences of stress.

Table 5. 31: Consequences of stress

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Behavioural Symptoms	90	22.1	22.1	22.1
Physical Symptoms	103	25.2	25.2	47.3
Cognitive Symptoms	80	19.6	19.6	66.9
Emotional Symptoms	135	33.1	33.1	100.0
Total	408	100.0	100.0	

From the above figure and table, it is evident that the most frequently occurring symptoms experienced by university staff of the UK and Pakistan, when experiencing stress, are emotional symptoms. Hence, it is clear that emotional consequences are the highest (33.1%),

followed by physical symptoms (25.2%), behavioural symptoms (22.1%) and, finally, cognitive symptoms (19.6%) (See table 5.31). However, the above analysis conveyed the general idea about the commonly causing stressor and type of consequences, but it does not reflect the variation in terms of considered dimensions. Thus, the chi-square test is used as the next step in this research.

5.2.8 Multiple Regression

According to Nachtigall *et al.*, (2003), latent variables are additional benefit of the SEM for the researchers from the field of psychology when investigating individual subjects, but the major issue is that estimation contains severe problems, such as factor scores might have incurred in an ambiguous way. Various authors argued that in the comparisons of standing on factor score, the model does not offer more than factor score estimates (Jöreskog, 2001; Raykov and Penev, 2002; Nachtigall *et al.*, 2003). Interestingly, Kariminalayer and Anuar (2012) argued that multiple regressions are one of the finest approaches for determining the relationship between dependent (X) and independent variables (Y) through a variance predictor in an interval variable. Furthermore, more than one explanatory variable reflects multiple regression (*ibid*). On the other hand, one of the few drawbacks of SEM is that it neglects substantive background, complexity of theory and application, risk of producing models post hoc and has a higher focus on the size effect (Nachtigall *et al.*, 2003). Additionally, in SEM, the significance of parameters is not the main interest; effect size is given more consideration such as 200 is the minimum sample size for lower bound to attain results (*ibid*). On the other hand, Cleophas *et al.*, (2000) argued that multiple regressions are highly effective for sub-groups to measure the impact of independent variables on a dependent variable.

Since, in this research, sub-groups were formed in terms of economy, faculty and gender, the size of the total sample reduces, which indicates that the lower bound is over 200 but variations in predictors within sub-groups may vary and, thus, the multiple regression is considered in this study to further evaluation. In other words, the SEM gave the overall holistic picture, but the further sub-group divisions required using another technique for measuring the impact of the variables in question on the dependent variables.

5.2.8.1 Predictors and organisational commitment's antecedents - Contrasting economies

For the purpose of analysis, the tables are combined so that the comparison is present in an adequate sequential manner. The variables of interest in relation to AC, NC and CC are examined in the contrasting economies first.

Table 5. 32: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441 ^b	.394	.374	1.38056
2	.517 ^b	.467	.449	1.41858

a. Country: 1=UK and 2=PAK

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Affective Commitment

The above table reflects R-Square and Adjusted R-Square. The adjusted R² is considered where the number of predictors varies for the dependent variable, while R² is used if the number of predictors remains same (Cleophas *et al.*, 2000). In the present case, R² is used as the number of predictors is constant. R² for the UK is 0.394 reflecting 39.4% variation in affective commitment is measured by the variations in the predictors, while 0.449 for Pakistan indicates 44.9% variation of the model explained by the predictors (Table 5.32). This is acceptable as in either country one-third is explained by the model. Hence, the model is a good fit for the data.

Table 5. 33: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	190.891	5	38.178	36.272	.000 ^c
	Residual	377.377	199	1.896		
	Total	568.268	204			
2	Regression	195.449	5	39.090	37.078	.000 ^c
	Residual	398.447	199	2.012		
	Total	593.896	204			

a. Country = 1.0 – UK

a'. Country = 2.0 – PAK

b. Dependent Variable: Affective Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

The ANOVA reflects that the F-Statistics scored 36.27 for the UK and 37.07 for Pakistan. Hence, this indicates that the explanatory power of the UK table is 36.27% and 37.07% for Pakistan. Therefore, this model is acceptable, as it has a one-third proportion of explanatory

power. the sig-value is significant and, hence, the model is acceptable ($=0.000 < 0.05, p < \alpha$; $0.000 < 0.05, p < \alpha$; Table 5.33). The figure below shows the multiple regressions of variables on the affective commitment of employees in Pakistan and the UK.

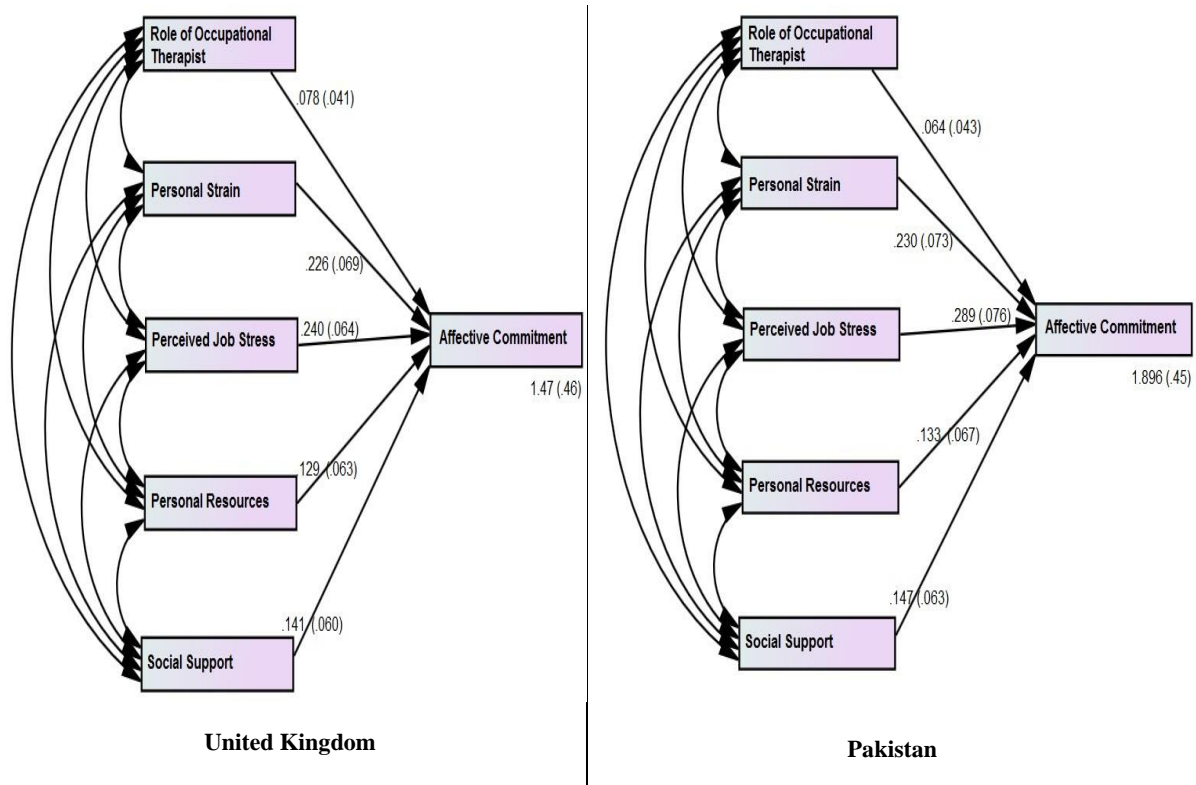


Figure 5. 8: Multiple regressions on the affective commitment in contrasting economies

Table 5. 34: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.470	.465		3.159	.002
UK	.078	.041	.069	1.903	.616
PAK					
UK	.226	.069	.220	3.855	.023
PAK					
UK	.240	.064	.238	3.750	.000
PAK					

PAK		.289	.076	.281	3.802	.002
UK	Personal Resources	.129	.063	.118	2.047	.016
PAK		.133	.067	.132	1.985	.031
UK	Social Support	.141	.060	.138	2.350	.011
PAK		.147	.063	.139	2.333	.004

a. Country = 1.0 – UK

a'. Country = 2.0 – PAK

b. Dependent Variable: Affective Commitment

The statistical test showed that the role of the occupational therapist is non-significant in determining the affective commitment of university staff in the UK and Pakistan ($=0.616 > 0.05, p > \alpha; =0.070 > 0.05, p > \alpha$; Table 5.34). Thus, this indicates that the effectiveness of the occupational therapist in relation to the affective commitment of the university staff is not statistically significant. In other words, the affective commitment of university employees is not significantly affected by the role of occupational therapist. Hence, there is no strong evidence against a null hypothesis and, therefore, fails to reject it. The present findings differ partially from the earlier work of Haque and Aston (2016), as the role of the occupational therapist is shown to be non-significant in the contrasting economies, whereas their work suggested otherwise. Personal strain is shown to have a statistically significant impact on the affective commitment of employees in both Pakistan and the UK ($=0.023 < 0.05, p < \alpha; 0.000 < 0.05, p < \alpha$; Table 5.34). Additionally, the t-value is greater than 1.96; and, therefore, the incurred value lies in the critical region. Therefore, there is a statistically significant impact of personal strain on the AC of university staff of both Pakistan and the UK. Interestingly, the standardized coefficient β reflects the variation caused by the predictors when there is single unit deviation from the standard. In the present case, the variation is higher in Pakistan in contrast to the UK (Table 5.34). In other words, the impact of personal strain affecting the AC of university staff in Pakistan is higher than the UK. In the light of the present evidence, the findings support the earlier work of Ruiller and van der Heijden (2014) in that personal strain is significant in affecting the affective commitment of employees. However, the statistical evidence does not confirm Coyle-Shapiro and Kessler (2000) in that the impact is largely negative.

Furthermore, perceived job stress is statistically significant in affecting the AC of university staff in Pakistan and the UK, as the sig-value is less than the alpha ($=0.000 < 0.05, p < \alpha$; $=0.002 < 0.05, p < \alpha$; Table 5.34). Hence, there is strong evidence against a null hypothesis, and it is, therefore rejected. In other words, perceived job stress is highly significant in determining the affective commitment of teaching and non-teaching staff in Pakistan and the UK. the increase by 1 standard deviation in perceived job stress will affect approximately 0.2 AC in a directly proportional manner (UK $\beta = .23$, PAK $\beta = .28$; Table 5.34). Thus, the present findings support Mark and Smith (2008) to the extent that perceived job stress has a direct impact on employees, while have striking difference with Haque and Aston (2016) in that the impact does not differ in the contrasting economies.

The results confirmed that personal resources have a statistically significant impact on the affective commitment of university employees in the contrasting economies ($=0.016 < 0.05, p < \alpha$; $0.031 < 0.05, p < \alpha$; Table 5.34). Hence, there is strong, statistically significant evidence against a null hypothesis. In other words, personal resources play a significant role in shaping the affective commitment of employees in a certain manner. Interestingly, the in-depth analysis revealed that the variation is higher in Pakistan in contrast to the UK, as the increase of 1 standard deviation leads to personal resources affecting AC 0.132 positively in Pakistan and 0.118 in the UK (Table 5.34). Zehra, *et al.*, (2017a) are confirmed, to some extent, in that personal resources significantly affect AC. Moreover, from the contrasting economies' perspective, this study is aligned with Haque and Aston (2016). Additionally, Folkman and Lazarus' (1980) model, used by Mark and Smith (2008), is supported through the present findings, as personal resources are an essential and effective aspect at the workplace in determining employees' commitment and attitude. Moreover, Xanthopoulou *et al.*, (2007) confirmed that personal resources have a mediating role at the workplace.

Social support has a statistically significant impact on the affective commitment of university staff employees in both the UK and Pakistan ($=0.011 < 0.05, p < \alpha$; $0.003 < 0.05, p < \alpha$; Table 5.34). The results indicate that social support has a vital role in affecting the affective commitment in public universities of the contrasting economies. Therefore, in the light of statistical evidence, a null hypothesis is rejected. 1 standard deviation increase will cause social support to positively affect the AC of university staff in both; Pakistan and the UK by 0.13 (Table 5.34). This partially differs with Faizan and Zehra (2016) in that social support is not highly significant in affecting the organisational commitment of employees, while it supports

Haque *et al.*, (2018), Haque and Oino (2019), Haque and Aston (2016), Haque *et al.*, (2016), and Sackey and Sanda (2011).

Table 5. 35: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671 ^b	.491	.413	1.24286
2	.689 ^b	.473	.462	1.12853

a. Country: 1=UK and 2=PAK

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Normative Commitment

Table 5. 36: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	197.158	5	39.432	37.887	.000 ^c
	Residual	305.851	199	1.545		
	Total	503.010	204			
2	Regression	180.750	5	36.150	35.876	.000 ^c
	Residual	252.172	199	1.274		
	Total	432.922	204			

a. Country = 1.0 – UK

a'. Country = 2.0 – PAK

b. Dependent Variable: Normative Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

Table 5.34 showed that the R² is 0.491 in the UK, reflecting 49.1% and 0.473 in Pakistan confirming 47.3%. Therefore, in both countries, an above 45% variation in normative commitment is explained by the variations in the predictors (Table 5.35). F-test revealed that the table has over 35% explanatory power. Since the sig-value is significant, the model is thus a good fit for data ($=0.000 < 0.05, p < \alpha; 0.000 < 0.05, p < \alpha$; Table 5.36). Additionally, the figure below reflects the unstandardized coefficient and standard error of each predictor on the normative commitment of university staff in the UK and Pakistan.

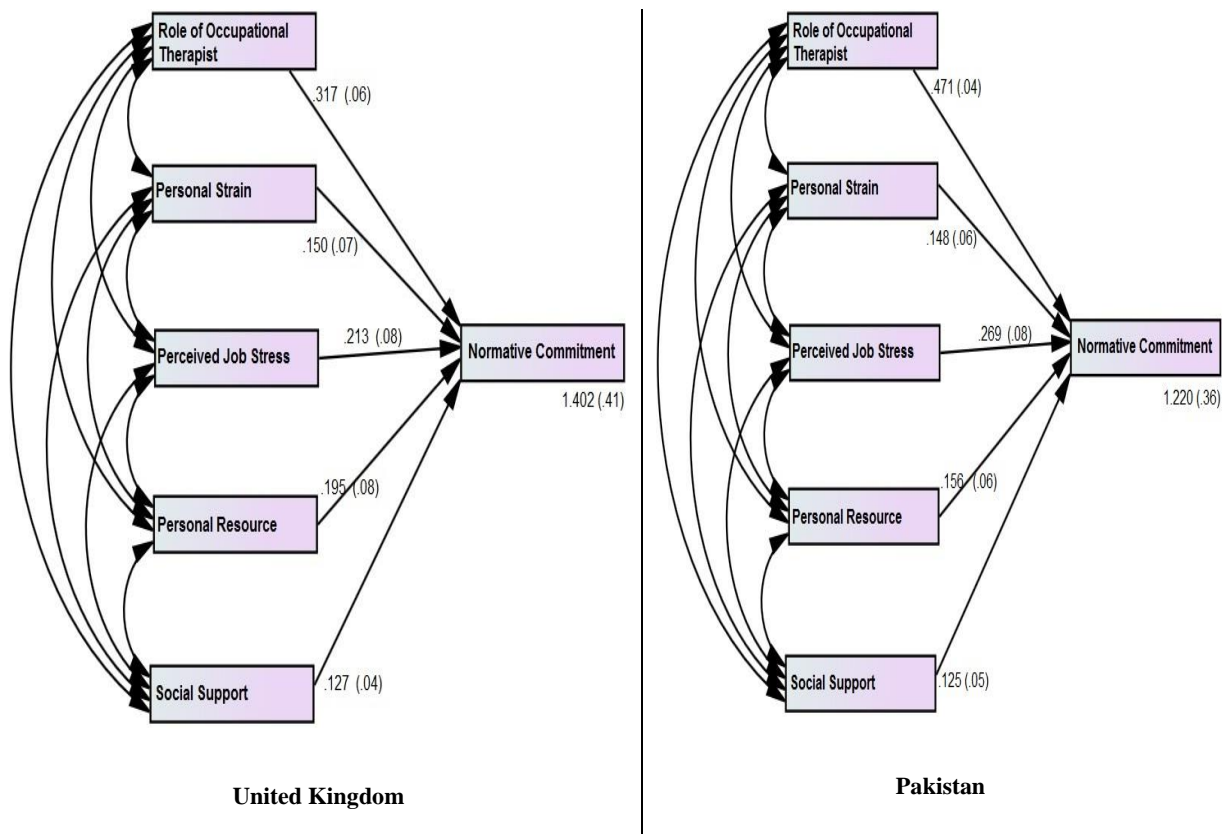


Figure 5. 9: Multiple regressions on the normative commitment in contrasting economies

Table 5. 37: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.402	.419		3.348	.001
UK	.317	.621	.312	.510	.784
PAK	.471	.43	.408	1.095	.986
UK	.150	.70	.145	2.142	.011
PAK	.148	.068	.145	2.176	.020
UK	.213	.085	.207	2.505	.000
PAK	.269	.083	.251	3.240	.000
UK	.195	.080	.221	2.437	.018
PAK	.156	.068	.152	2.294	.016
UK	.127	.040	.117	3.175	.000

PAK	.125	.057	.119	2.192	.032
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a. Country = 1.0 – UK

a'. Country = 2.0 – PAK

b. Dependent Variable: Normative Commitment

The statistical test showed that the role of the occupational therapist is not statistically significant regarding the normative commitment of university employees in the UK and Pakistan ($=0.784 > 0.05, p > \alpha$; $=0.986 > 0.05, p > \alpha$; Table 5.37). Thus, a null hypothesis cannot be rejected, as there is no significant evidence against it. The finding has a striking difference with Haque and Aston (2016) in that the effectiveness of the occupational therapist is significant in affecting the normative commitment of employees in the contrasting economies, as there is non-significant affect evident in the contrasting economies. Additionally, the statistical results confirmed that personal strain has a significant role in determining the normative commitment of university (teaching and administrative) staff in Pakistan and the UK ($=0.020 < 0.05, p < \alpha$; $0.011 < 0.05, p < \alpha$; Table 5.37). The t-score is higher than 1.96, confirming that normative commitment is significantly affected by employees' personal strain. Interestingly, an increase of 1 standard deviation will lead to personal strain positively affecting the normative commitment of university staff of the UK and Pakistan by 0.145 (Table 5.37). In this aspect, the present study confirms the earlier work of Zehra *et al.*, (2017a) and Haque *et al.*, (2016), whereas it differs with Zehra *et al.*, (2017b) by confirming a statistically significant impact of personal strain on normative commitment.

Interestingly, the results showed that, statistically, perceived job stress extremely statistically significantly affects normative commitment in the contrasting economies ($=0.000 < 0.05, p < \alpha$; $0.000 < 0.05, p < \alpha$; Table 5.37). There is strong evidence against a null hypothesis and, therefore, it is rejected. The results indicate that perceived job stress has a significant impact on the NC; the results also showed that the impact is higher in Pakistan in contrast to the UK as 1 standard deviation increases the NC and is affected by it up to 0.251 in Pakistan, while in the UK it is affected by it up to 0.207 (Table 5.37). The current findings support Haque and Aston (2016), while oppose Zehra *et al.*, (2017b) in this regard.

Statistically, personal resources statistically significantly affect the normative commitment of teaching and non-teaching, university staff in the contrasting economies ($=0.018 < 0.05, p < \alpha$; $0.016 < 0.05, p < \alpha$; Table 5.37). The results showed that the incurred value lie in the critical

region and, hence, there is strong evidence against a null hypothesis. Thus, a null hypothesis is rejected. The role of personal resources is higher in the UK, as an increase of 1 standard deviation reflects over 0.221 direct variations in normative commitment, while in Pakistan it is 0.152 (Table 5.37). Thus, Haque *et al.*, (2018), Haque and Aston (2016) and Haque *et al.*, (2016) is supported while, to some extent, Yilmaz, Özer and Günlük (2014) are contradicted by the present findings. The normative commitment of teaching and administrative staff is statistically significantly affected by social support in the UK and Pakistan ($=0.000 < 0.05, p < \alpha; 0.032 < 0.05, p < \alpha$; Table 5.37). Additionally, the t-score is higher than 1.96, indicating that the impact is statistically significant. A null hypothesis is rejected owing to strong, statistical evidence against it. Furthermore, social support positively affects normative commitment by over 0.11 with an increase of 1 unit of standard deviation. Thus, this study supports Haque *et al.*, (2018), Haque and Aston (2016) to a large extent and indirectly supports Sackey and Sanda (2008) in that social support at a workplace is vital for employees to be committed to their respective organisations.

Table 5. 38: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.479 ^b	.443	.373	1.30505
2	.563 ^b	.417	.390	1.28090

a. Country: 1=UK and 2=PAK

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Continuance Commitment

Table 5. 39: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	180.702	5	36.140	34.437	.000 ^c
	Residual	337.225	199	1.703		
	Total	517.926	204			
2	Regression	181.068	5	36.214	36.573	.000 ^c
	Residual	324.859	199	1.641		
	Total	505.926	204			

a. Country = 1.0 – UK

a'. Country = 2.0 – PAK

b. Dependent Variable: Continuance Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

The 44.3% variation in continuance commitment in the UK is explained by the predictors considered in this study, while the same predictors explained a 41.7% variation in continuance commitment in Pakistan (Table 5.38). Additionally, the F-score for the UK is 34.4, reflecting a 34.4% explanatory power of the model, while in Pakistan the explanatory power is 36.5%. The sig-value is significant for both models, confirming that the model is acceptable, as these are a good fit for the data ($=0.000 < 0.05, p < \alpha; 0.000 < 0.05, p < \alpha$; Table 5.39).

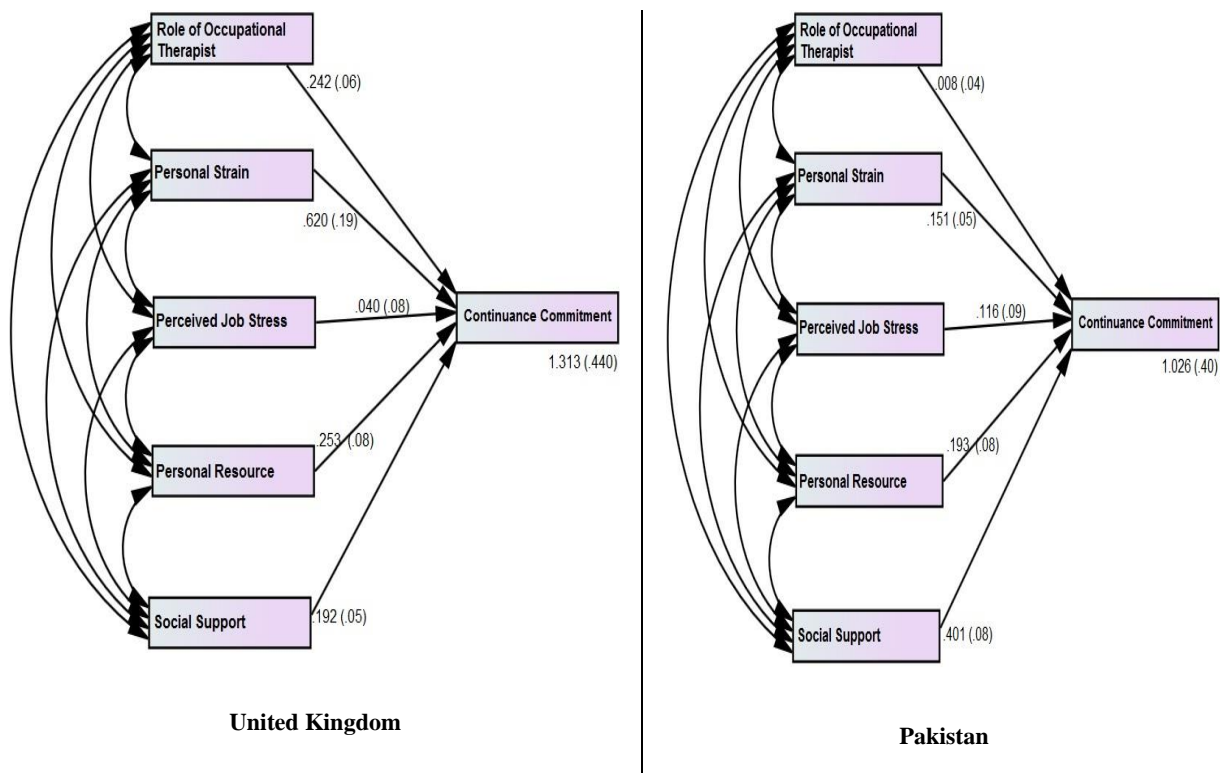


Figure 5. 10: Multiple regressions on the continuance commitment in contrasting economies

Table 5. 40: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.313	.440		2.986	.003
UK	.242	.065	.232	1.406	.180

PAK	Role of Occupational Therapist	.008	.048	.010	.161	.872
UK	Personal Strain	.620	.193	.553	3.212	.030
PAK		.151	.053	.136	2.849	.021
UK	Perceived Job Stress	.040	.089	.037	.445	.136
PAK		.116	.094	.090	1.229	.220
UK	Personal Resources	.253	.084	.241	3.011	.000
PAK		.193	.086	.182	2.248	.026
UK	Social Support	.192	.056	.087	3.428	.000
PAK		.401	.081	.404	4.930	.000

a. Country = 1.0 – UK

a'. Country = 2.0 – PAK

b. Dependent Variable: Continuance Commitment

The role of the occupational therapist is non-significant in relation to the continuance commitment of employees in the contrasting economies ($=0.18 > 0.05, p > \alpha$; $=0.872 > 0.05, p > \alpha$; Table 5.40). In other words, the continuance commitment of university staff in the UK and Pakistan is not statistically significantly determined by the role of the occupational therapist. Hence, a null hypothesis cannot be rejected. This finding, therefore, differs from the earlier work of Haque and Aston (2016) in terms of contrasting economies. Thus, statistically the effectiveness of the occupational therapist cannot be established in determining the continuance commitment of employees working at public universities in the UK and Pakistan. Interestingly, personal strain is statistically significant in affecting the continuance commitment of employees in both countries ($=0.030 < 0.05, p < \alpha$; $0.021 < 0.05, p < \alpha$; Table 5. 40). Hence, the findings support Haque *et al.*, (2018), Haque and Oino (2017), and Haque and Aston (2016) in the contrasting economies perspective but differs with Zehra *et al.*, (2017b) on general grounds.

the impact varies in the contrasting economies as evident that 0.553 direct effect of personal strain on the CC of university staff in the UK, while 0.136 in Pakistan with an increase of 1 standard deviation (Table 5. 40). Perceived job stress has a non-significant impact on the continuance commitment of university staff in the contrasting economies ($=0.136 > 0.05, p > \alpha$; $0.220 > 0.05, p > \alpha$; Table 5. 40). In other words, perceived job stress does not affect the

continuance commitment of the employees in the contrasting economies significantly. A null hypothesis cannot be rejected, as there is no significant evidence against it. Therefore, Haque and Aston (2016) is challenged by our results, while Zehra *et al.*, (2017b) are supported. Moreover, personal resources are statistically significantly interlinked with the continuance commitment of university staff in the UK and Pakistan ($=0.000 < 0.05, p < \alpha; =0.026 < 0.05, p < \alpha$; Table 5. 40). In other words, personal resources have a significant impact on CC. Thus, a null hypothesis is rejected, as there is strong evidence against it. Personal resources affect CC by 0.241 in the UK, while in Pakistan they affect CC by 0.182 with the increase in the standard deviation by 1 unit. This indicates that the role is highly statistically significant. Therefore, the findings are aligned with Haque *et al.*, (2018), Zehra, *et al.*, (2017a) and Haque and Aston (2016). Social support has an extremely significant impact on the continuance commitment of university staff in both the UK and Pakistan. A null hypothesis is rejected owing to strong statistical evidence ($=0.000 < 0.05, p < \alpha; 0.000 < 0.05, p < \alpha$; Table 5. 40). Hence, in this regard, the present findings are aligned with Haque *et al.*, (2018), Haque and Oino (2017), Haque and Aston (2016), while it differs with Faizan and Zehra (2017). Nevertheless, the statistical results showed different aspects but still there is a need to examine the visibility of the contrasting attributes in the contrasting economies.

Table 5. 41: Group Statistics

	Country	N	Mean	Std. Deviation	Variance
Representation of Occupational Therapist	United Kingdom	204	.3040	.21869	.074
	Pakistan	204	.3984	.27161	.048
Effectiveness of Occupational Therapist	United Kingdom	204	3.2467	1.4987	3.85
	Pakistan	204	3.5964	1.9620	2.24
Personal Strain	United Kingdom	204	3.8529	1.2603	1.64
	Pakistan	204	3.7761	1.2812	1.58
Perceived Job Stress	United Kingdom	204	3.8799	1.1954	1.77
	Pakistan	204	3.6732	1.3312	1.42
Personal Resources	United Kingdom	204	3.5906	1.4376	2.23

	Pakistan	204	3.4436	1.4948	2.06
Social Support	United Kingdom	204	3.7426	1.5412	1.84
	Pakistan	204	3.6765	1.3585	2.37
Affective Commitment	United Kingdom	204	3.9583	1.5188	1.51
	Pakistan	204	3.6103	1.6368	1.63
Normative Commitment	United Kingdom	204	3.9804	1.3187	1.31
	Pakistan	204	3.4510	1.2806	1.28
Continuance Commitment	United Kingdom	204	3.6324	1.4348	1.43
	Pakistan	204	3.3676	1.5311	1.53

The results showed that the rate of occupational therapist representation in the UK is higher in contrast to Pakistan, as the mean value is relatively lower ($=0.3040 < 0.3984$, Table 5.41). In other words, rate of representation of the occupational therapist is higher at universities in the UK (developed economy) in contrast to Pakistan (emerging economy). The effectiveness of the occupational therapist was evaluated in the universities of the contrasting economies. Results revealed that the mean value for the UK is lower than that of Pakistan and, hence, the visibility of effectiveness is higher in the UK, in contrast to Pakistan, despite the overall evidence showing that it is not highly effective, to a large extent ($=3.2467 < 3.5964$, Table 5.41). Moreover, personal strain is more visible in the university staff of Pakistan (emerging economy), in contrast to the UK (developed economy), as the mean score is lower ($=3.7761 < 3.85929$, Table 5.41). Nevertheless, there is only fractional difference of personal strain between the economies. Similarly, perceived job stress is higher in Pakistan, in contrast to UK ($3.6732 < 3.8799$, Table 5.41). Hence, perceived job stress among the university staff of Pakistan is more visible, in contrast to the UK.

Personal resources are more visible in Pakistan than in the UK ($=3.4436 < 3.5906$, Table 5.41). This indicates that personal resources are used more by both teaching and non-teaching staff in Pakistan, in contrast to the UK. In addition, social support at the universities in Pakistan is

significantly visible, in contrast to the UK ($=3.6756 < 3.7426$, Table 5.41). Thus, social support is used more constructively by employees in the Pakistani universities, in contrast to the UK. Furthermore, the organisational commitment's antecedents were examined in terms of visibility in the contrasting economies. Results showed that continuance commitment is highly visible, in contrast to affective and normative commitment, in Pakistan because it is the lowest of the three ($CC=3.3676 < NC=3.4510 < AC=3.6103$, Table 5.41). Moreover, the dimensions of organisational commitment are more visible in Pakistan than in the UK ($AC=3.6103 < 3.9583$, $NC=3.4510 < 3.9804$, $CC=3.3676 < 3.6324$, Table 5.41). Thus, in this regard and to a certain extent, the present findings support Haque and Aston (2016), while differ from Haque *et al.*, (2018), as the AC is higher in the developing country, in contrast to the developed country.

In addition, considering the presence of all types of commitment despite stress, present findings to some extent opposed Danish *et al.*, (2015) and Khatibi *et al.*, (2009) while support Chaudhry (2012) and Jackson and Rothman (2006). Nevertheless, regarding all three dimensions of OC, this study differs from Haque and Aston (2016) in that the UK has a higher AC, NC and CC than Pakistan. However, that study mostly covered the IT sector, whereas the present findings are from the education sector. Moreover, the IT sector was mostly privately owned, while the education sector is a public sector. Hence, it is concluded that the antecedents' visibility and degree vary from sector to sector in terms of nature and type. In other words, the dynamics of the sector have a role in creating variation in overall organisational commitment. Another important notion is that Haque and Aston (2016) has higher responses from inexperienced graduates, while here the majority of the respondents were experienced and in the 40 to 60 years age bracket.

5.2.8.2 Predictors and Organisational commitments' antecedents - Contrasting Genders

Table 5. 42: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501 ^b	.451	.419	1.27687
2	.488 ^b	.436	.402	1.33841

a. Gender: 1=Male and 2=Female

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Affective Commitment

Table 5. 43: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	108.069	5	21.614	19.257	.000 ^c
	Residual	332.817	199	1.630		
	Total	430.886	204			
2	Regression	95.254	5	19.051	17.260	.000 ^c
	Residual	352.827	197	1.791		
	Total	448.081	202			

a. Gender = 1.0 – Male

a'. Gender = 2.0 – Female

b. Dependent Variable: Affective Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

In the above tables, the option of ‘preferred not to say’ is discarded because only those responses with an identified gender are considered for exploring the perspective in terms of gender. The R^2 is over 40% for male and female, reflecting that the predictors explain 40% variation in the dependent variable in both genders (Table 5.42). the F-score reflects over 15% explanatory power for males and females, while the sig-value is statistically significant and, therefore, the model is a good fit for the data (Table 5.43).

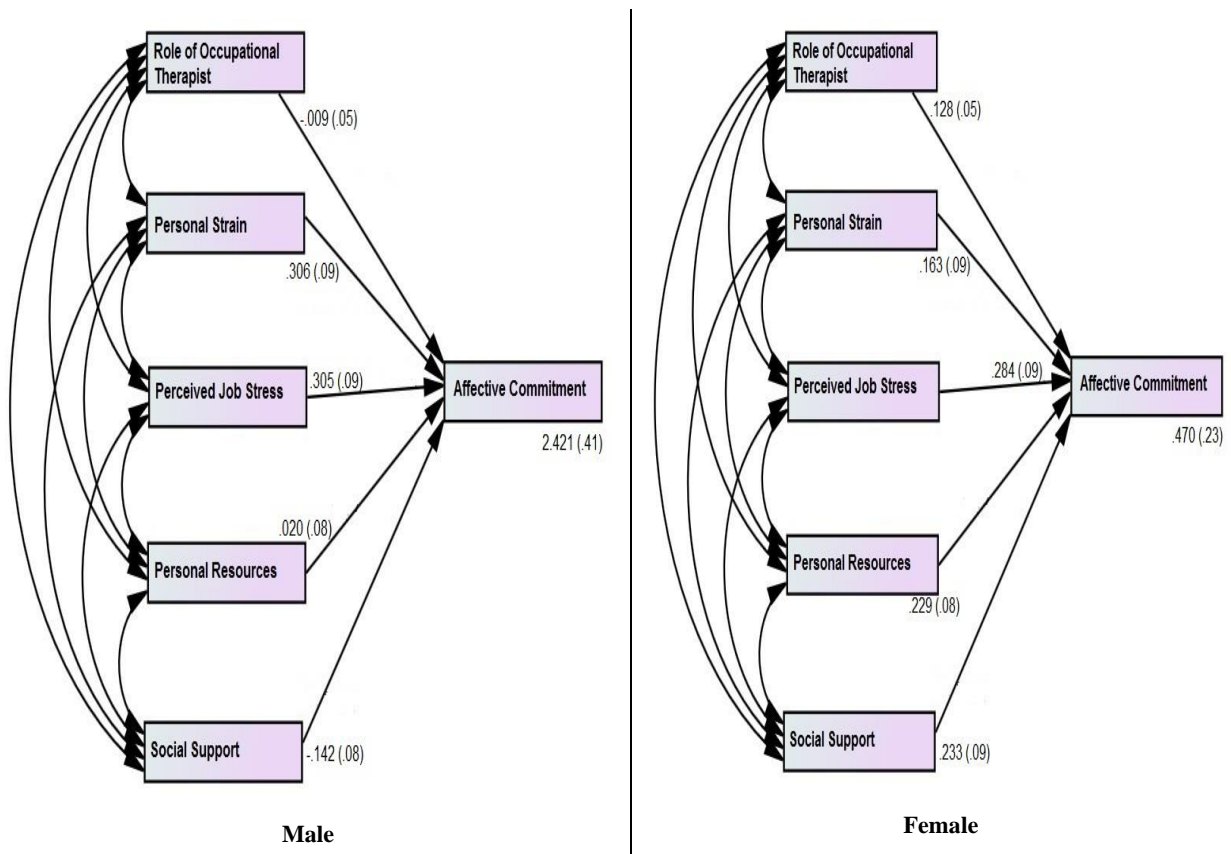


Figure 5. 11: Multiple regressions on the affective commitment in contrasting genders.

Table 5. 44: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.421	.415		5.832	.000
Male Role of Occupational Therapist	-.009	.055	-.011	-.158	.875
Female	.128	.057	.150	2.247	.026
Male Personal Strain	.306	.091	.273	3.360	.001
Female	.163	.098	.136	1.671	.096
Male Perceived Job Stress	.305	.096	.257	3.186	.002
Female	.284	.092	.250	3.080	.002
Male Personal Resources	.020	.087	.020	.227	.821
Female	.229	.086	.223	2.538	.001
Male Social Support	.242	.085	.239	2.847	.009

Female	.233	.091	.230	2.560	.001
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a. Gender = 1.0 – Male

a'. Gender = 2.0 – Female

b. Dependent Variable: Affective Commitment

The results showed that effectiveness of the occupational therapist significantly affects the affective commitment of the females, while it is non-significant for males ($=0.025 < 0.05, p < \alpha$; $=0.875 > 0.05, p > \alpha$; Table 5.44). Hence, this indicates that effectiveness of the occupational therapist affects the AC of females to a significant level but does not have any significant role in determining it for males. In this aspect, the study supports Haque *et al.*, (2016) in that females reported to use the occupational therapist's counselling in a more effective manner, in contrast to their counterparts. Interestingly, the perceived strain is statistically significant in affecting the AC of males, while it is non-significant for females ($=0.001 < 0.05, p < \alpha$; $=0.096 > 0.05, p > \alpha$; Table 5.44). A null hypothesis cannot be rejected. This study, therefore, supports Haque *et al.*, (2016), while it differs from the notion of Sackey and Sanda (2011) and Brannon and Fiest (1992) that males deal with personal strain more effectively than females, owing to adaptive response. In other words, females are more effective in ensuring that personal strain does not affect their emotional attachment to an organisation.

Moreover, it is evident that perceived job stress has a statistically significant impact on the AC of the contrasting genders ($=0.002 < 0.05, p < \alpha$; $=0.002 < 0.05, p < \alpha$; Table 5.44). Hence, a null hypothesis is rejected. Interestingly, the present findings contradict Sackey and Sanda (2011), Kumasey *et al.*, (2014), Haque *et al.*, (2016) and Haque *et al.*, (2018) by confirming that perceived job stress affects the AC of male and female university staff in the contrasting economies. The statistical tests also revealed that personal resources affect the females' AC, while they do not affect males' AC significantly ($=0.001 < 0.05, p < \alpha$; $=0.821 > 0.05, p > \alpha$; Table 5.44). Hence, a null hypothesis cannot be rejected because personal resources have a significant role in determining the females' AC, in contrast to males. In other words, females reported using personal resources in a more constructive manner, in contrast to their counterparts at a public university. Thus, this study supports, to a large extent, Haque *et al.*, (2016) and Sackey and Sanda (2011), while it differs from Kumasay *et al.*, (2014) in that the AC of males and females are similarly affected, owing to personal resources. Social support plays a statistically significantly role in affecting the AC of males and females ($=0.009 < 0.05, p < \alpha$; $0.001 < 0.05, p < \alpha$; Table 5.44). Hence, there is strong evidence against a null

hypothesis. Since the obtained value for females is lower than that for males, this indicates that social support is more constructively used by females, in contrast to their counterparts, in shaping AC. Hence, this study supports Haque *et al.*, (2018), Haque *et al.*, (2016), Haque and Aston (2016) and Sackey and Sanda (2011), while it differs from Kumasey *et al.*, (2014).

Table 5. 45: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.479 ^b	.423	.411	1.18239
2	.442 ^b	.420	.375	1.18336

a. Gender: 1=Male and 2=Female

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Normative Commitment

Table 5. 46: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	82.67	5	16.521	15.124	.000 ^c
	Residual	276.815	199	1.398		
	Total	359.422	204			
2	Regression	67.361	5	16.472	15.060	.000 ^c
	Residual	275.792	197	1.412		
	Total	342.153	202			

a. Gender = 1.0 – Male

a'. Gender = 2.0 – Female

b. Dependent Variable: Normative Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

The model summary revealed that over 40% of the variations in the NC of the contrasting genders is explained by the variation in the predictors (Table 5.45). Additionally, the F-test revealed that a 15% acceptable explanatory power of the model is significant, reflecting that the model is a good fit for data (Table 5.46).

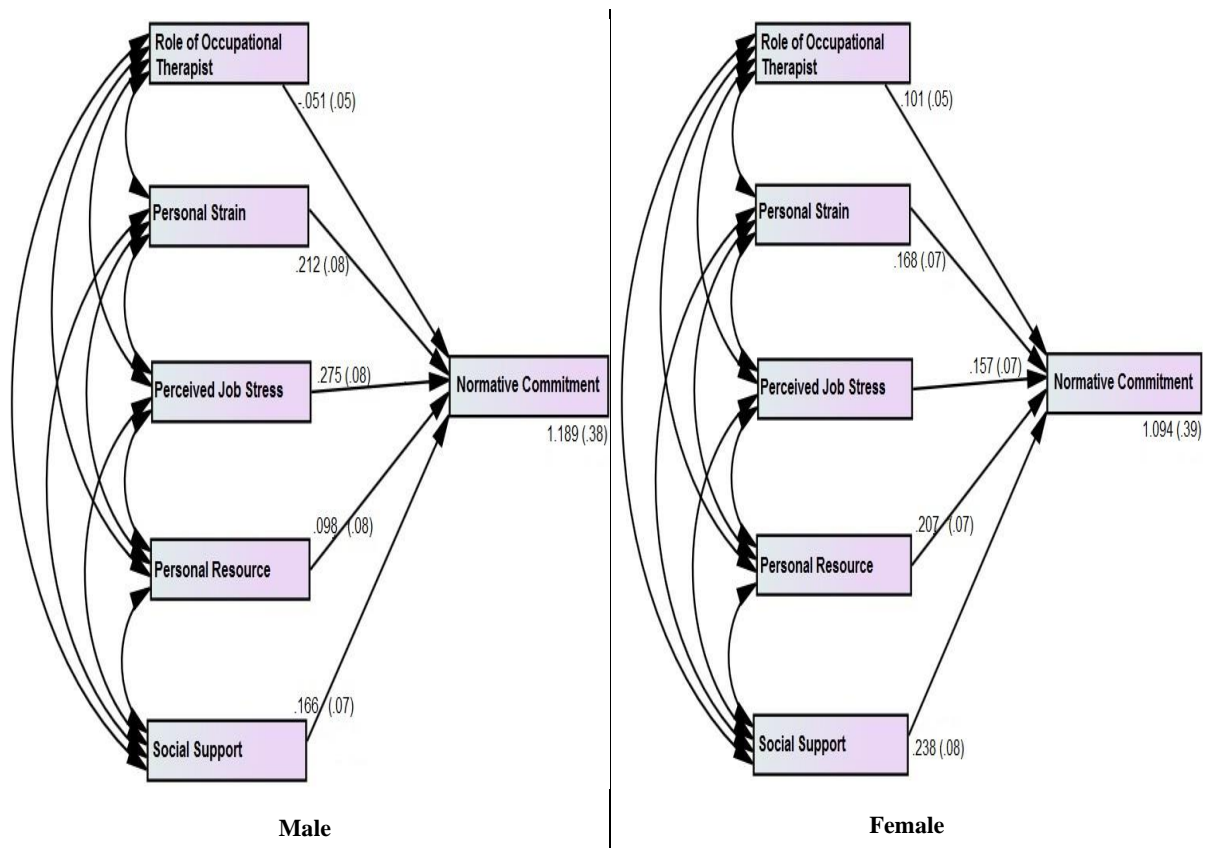


Figure 5. 12: Multiple regressions on the normative commitment in contrasting genders.

Table 5. 47: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.189	.384		3.094	.002
Male Role of Occupational Therapist	-.051	.051	-.068	-1.001	.318
Female	.101	.050	.133	2.003	.047
Male Personal Strain	.212	.084	.208	2.515	.013
Female	.168	.079	.064	2.127	.031
Male Perceived Job Stress	.275	.089	.253	3.100	.002
Female	.157	.078	.155	2.013	.046
Male Personal Resources	.098	.081	.108	1.206	.229
Female	.207	.076	.222	2.732	.007
Male Social Support	.166	.078	.186	2.121	.035

Female	.238	.081	.139	2.938	.002
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a. Gender = 1.0 – Male

a'. Gender = 2.0 – Female

b. Dependent Variable: Normative Commitment

Statistical tests revealed that the role of the occupational therapist is statistically significant in affecting females' normative commitment, while it is non-significant for their counterparts ($=0.047 < 0.05, p < \alpha$; $=0.318 > 0.05, p > \alpha$; Table 5.47). This indicates that a null hypothesis is rejected in the light of the contrasting findings. Moreover, the females find the role of occupational therapist more effective, in contrast to males. Hence, the study supports Haque *et al.*, (2016). In addition, personal strain is statistically significantly affecting NC of the contrasting genders. In other words, personal strain affects the normative commitment of males and females significantly. A null hypothesis is rejected owing to strong evidence against it ($=0.013 < 0.05, p < \alpha$; $=0.031 < 0.05, p < \alpha$; Table 5.47). Nevertheless, the NC of males is fractionally higher in significance than that of the females. Hence, in this regard, the present study supports Haque *et al.*, (2016), Sackey and Sanda (2011) and Brannon and Fiest (1992).

Interestingly, the perceived job stress is evident to statistically significantly affecting the normative commitment of males and females working at the public university ($=0.002 < 0.05, p < \alpha$; $=0.046 < 0.05, p < \alpha$; Table 5.47). Hence, in light of the statistical results, a null hypothesis is rejected. In other words, perceived job stress has a statistically significant role in determining the normative commitment of the contrasting genders. Thus, the present findings are strikingly different to Haque *et al.*, (2018), Haque *et al.*, (2016), Kumasey *et al.*, (2014), and Sackey and Sanda (2011). Personal resources have a statistically significant role in shaping the normative commitment of females but have a non-significant impact on male employees working at the universities. Thus, a null hypothesis cannot be rejected ($=0.007 < 0.05, p < \alpha$; $=0.229 > 0.05, p > \alpha$, Table 5.47). The contrasting results indicate that the present findings differ from Kumasey *et al.*, (2014) but are aligned with Sackey and Sanda (2011), to a large extent. Moreover, the results confirmed that social support has a statistically significant role in affecting the normative commitment of the contrasting genders working in the universities of the UK and Pakistan. There is strong evidence against a null hypothesis and, therefore, it is rejected ($=0.035 < 0.05, p < \alpha$; $=0.002 < 0.05, p < \alpha$; Table 5.47). Partially, the study supports

the earlier work of Sackey and Sanda (2011) but differs from Haque *et al.*, (2016) and Kumasey *et al.*, (2014).

Table 5. 48: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.538 ^b	.429	.372	1.25888
2	.658 ^b	.434	.411	1.29533

a. Gender: 1=Male and 2=Female

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Continuance Commitment

Table 5. 49: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.885	5	25.577	23.992	.000 ^c
	Residual	315.415	199	1.585		
	Total	443.300	204			
2	Regression	88.620	5	17.724	16.492	.000 ^c
	Residual	242.704	197	1.232		
	Total	331.324	202			

a. Gender = 1.0 – Male

a'. Gender = 2.0 – Female

b. Dependent Variable: Continuance Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

The model summary reflects that the model is a good fit for the data, as over 40% of the variations in the dependent variable are explained by the variations in the predictors (Table 5.48). Moreover, the explanatory power is acceptable for the contrasting genders and the model is statistically significant (Table 5.49).

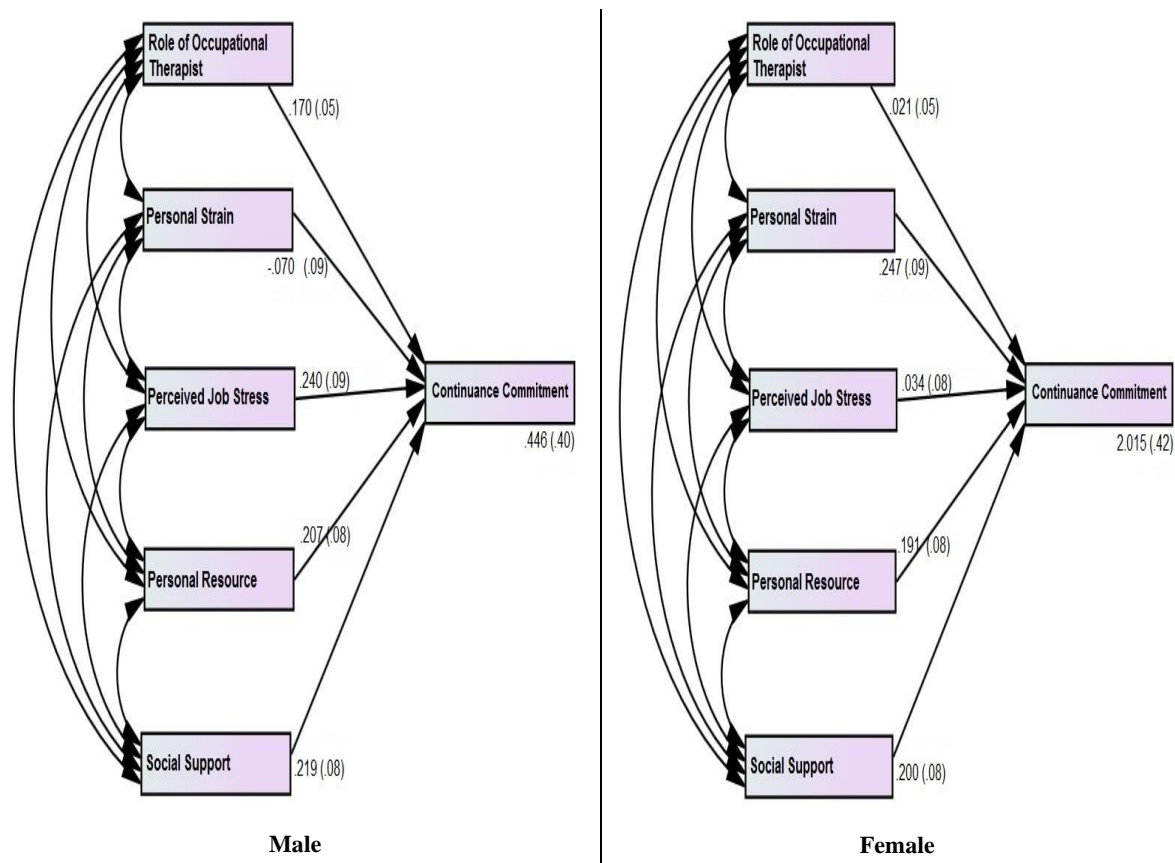


Figure 5. 13: Multiple regressions on the continuance commitment in contrasting genders.

Table 5. 50: Coefficients^{a, a,' b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.446	.409		1.089	.277
Male Role of Occupational Therapist	.170	.054	.206	3.153	.002
Female	.021	.055	.026	.380	.704
Male Personal Strain	-.070	.090	-.062	-.782	.435
Female	.247	.094	.241	2.627	.002
Male Perceived Job Stress	.240	.095	.199	2.534	.012
Female	.034	.089	.032	.386	.700
Male Personal Resources	.207	.086	.207	2.404	.017
Female	.191	.083	.195	2.313	.022
Male Social Support	.219	.083	.222	2.632	.009

Female	.200	.088	.191	2.265	.025
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a. Gender = 1.0 – Male

a'. Gender = 2.0 – Female

b. Dependent Variable: Continuance Commitment

The statistical results showed that the continuance commitment of male employees is significantly affected by the role of the occupational therapist, while females' CC is not significantly affected. Hereby, the respondents are making suppositions on behalf of whether or not occupational therapy works or does not work for other people. The finding slightly reflects the counter-intuitive and perhaps this might reflect men's and women's dispositions towards therapists. Nevertheless, study reports respondents' suppositions which suggest that the effectiveness of the occupational therapist is higher for males' CC, in contrast to their counterparts ($=0.002 < 0.05, p < \alpha; =0.704 > 0.05, p > \alpha$; Table 5.50). This finding, therefore, differs from the previous work of Haque *et al.*, (2018), Haque *et al.*, (2016) and Haque and Aston (2016) who argued that females find occupational therapists more effective, which improves their continuance commitment. Personal strain statistically significant affect the females' continuance commitment, while it has a non-significant effect on males' CC ($=0.002 < 0.05, p < \alpha; =0.435 > 0.05, p > \alpha$; Table 5.50). In other words, personal strain differs in its effect on the continuance commitment of males and females. This indicates that its impact is significant in determining females' CC. Hence, in this regard, this study partially differs from Haque and Aston (2016) by confirming that females experiencing higher personal strain affect their continuance commitment in contrast to males.

Additionally, perceived job stress has a statistically significant effect on males' CC, while it has a non-significant impact on females' CC ($=0.012 < 0.05, p < \alpha; =0.700 > 0.05, p > \alpha$; Table 5.50). Hence, it reflects that there is no evidence against a null hypothesis. This also reflects that perceived job stress causes males CC to decline, while females' CC does not. Therefore, this study supports Haque and Yamoah (2014), Haque and Aston (2016), Haque *et al.*, (2016) and Haque *et al.*, (2018), while it differs from Hemdi (2009) and Kumasey *et al.*, (2014). Interestingly, personal resources are evident to statistically significantly affect the continuance commitment of the contrasting genders. A null hypothesis is rejected owing to strong evidence against it ($=0.017 < 0.05, p < \alpha; =0.022 < 0.05, p < \alpha$; Table 5.50). In other words, personal resources affect the continuance commitment of the contrasting genders significantly. The present finding supports Haque and Aston (2016), while it differs from Kumasey *et al.*, (2014).

Moreover, social support has a statistically significant effect on the continuance commitment of the contrasting genders ($=0.009 < 0.05, p < \alpha$; $=0.025 < 0.05, p < \alpha$; Table 5.50). Hence, in the light of the evidence, a null hypothesis is rejected. In other words, social support significantly affects the continuance commitment of male and female employees in a distinctive manner. Therefore, the present study supports Haque and Aston (2016), Haque *et al.*, (2016) and Haque *et al.*, (2018), while it partially differs from Kumasey *et al.*, (2014).

Since, two respondents did not disclose their gender, these are, therefore, excluded by only considering male and female responses to measure the visibility of the predictors.

Table 5. 51: Group Statistics

	Gender	N	Mean	Std. Deviation	Variance
Representation of Occupational Therapist	Male	204	.3284	.25249	.064
	Female	202	.2486	.24865	.062
Effectiveness of Occupational Therapist	Male	204	3.5264	1.7872	3.19
	Female	202	3.3203	1.7215	2.96
Personal Strain	Male	204	3.9853	1.3023	1.69
	Female	202	3.6403	1.2206	1.49
Perceived Job Stress	Male	204	3.9330	1.224	1.49
	Female	202	3.6196	1.2897	1.66
Personal Resources	Male	204	3.9985	1.4725	2.16
	Female	202	3.8391	1.3085	1.95
Social Support	Male	204	3.3284	1.4896	2.21
	Female	202	3.0842	1.3983	1.71
Affective Commitment	Male	204	3.1708	1.4569	2.12
	Female	202	4.4044	1.4649	2.14

Normative Commitment	Male	204	3.8137	1.3306	1.71
	Female	202	3.6287	1.3085	1.71
Continuance Commitment	Male	204	3.9356	1.4750	2.17
	Female	202	3.0637	1.3743	1.88

The results revealed that the rate of representation of the occupational therapist is more preferred by females, in contrast to males ($=0.2486 < 0.3284$, Table 5.51). Moreover, the effectiveness of the occupational therapist in the education sector is more evident among females, in contrast to males ($=3.3203 < 3.5264$, Table 5.51). The mean difference is significant and, thus, reflects that the visibility of the professional occupational therapists' effectiveness is more evident among female university staff, in contrast to males. Interestingly, personal strain is more evident among female employees, in contrast to males ($=3.6403 < 3.9585$, Table 5.51). Thus, the findings revealed that personal strain is higher in females, in contrast to organisational strain. The earlier chi-square results also revealed that personal strain is higher in females. perceived job stress is also evident highly among female employees, in contrast to male workers, irrespective of the types of faculty and economy ($=3.6196 < 3.9985$, Table 5.51). Interestingly, the test revealed that females make more effective use of personal resources than males ($=3.8391 < 3.9985$, Table 5.51). In other words, females working in universities are using personal resources more frequently in order to deal with different types of stressors, in contrast to males. Moreover, the mean difference is significant between males and females regarding the effective use of social support at the workplace ($=3.0842 < 3.3284$, Table 5.51). Therefore, there is statistical evidence to confirm that preference, usage and visibility of social support is higher among female employees, in contrast to male employees, at universities. Considering the antecedents of organisational commitment, the statistical analysis revealed that affective commitment is highly visible among males ($=3.1708 < 4.4044$, Table 5.51), whereas normative commitment and continuance commitment is higher among female employees, in contrast to their counterparts (NC= $3.6287 < 3.8137$, CC= $3.0637 < 3.9356$, Table 5.51). Hence, the types of organisational commitment vary among the contrasting genders, as NC and CC are highly visible among females, while AC is higher in male employees. The present findings support Haque and Yamoah (2014) in that AC is higher among males, while NC and CC are higher

among females and, thus, these results differ from Haque and Aston (2016) and Haque *et al.*, (2016).

5.2.8.3 Predictors and Organisational commitments' antecedents - Contrasting Faculties

Table 5. 52: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517 ^b	.427	.382	1.30200
2	.448 ^b	.420	.381	1.49870

a. Faculty: 1=Teaching and 2=Administrative

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Affective Commitment

Table 5. 53: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	122.145	5	24.429	14.41.992	.000 ^c
	Residual	337.305	199	1.695		
	Total	459.450	204			
2	Regression	111.957	5	22.391	9.969	.000 ^c
	Residual	446.954	199	2.246		
	Total	558.911	204			

a. Faculty = 1.0 – Teaching

a'. Faculty = 2.0 - Administrative

b. Dependent Variable: Affective Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

The model summary reflects that 42% of the variation in the dependent variables is explained by variations in the predictors (Table 5.52). Moreover, the explanatory power is acceptable, as the value is statistically significant (Table 5.53).

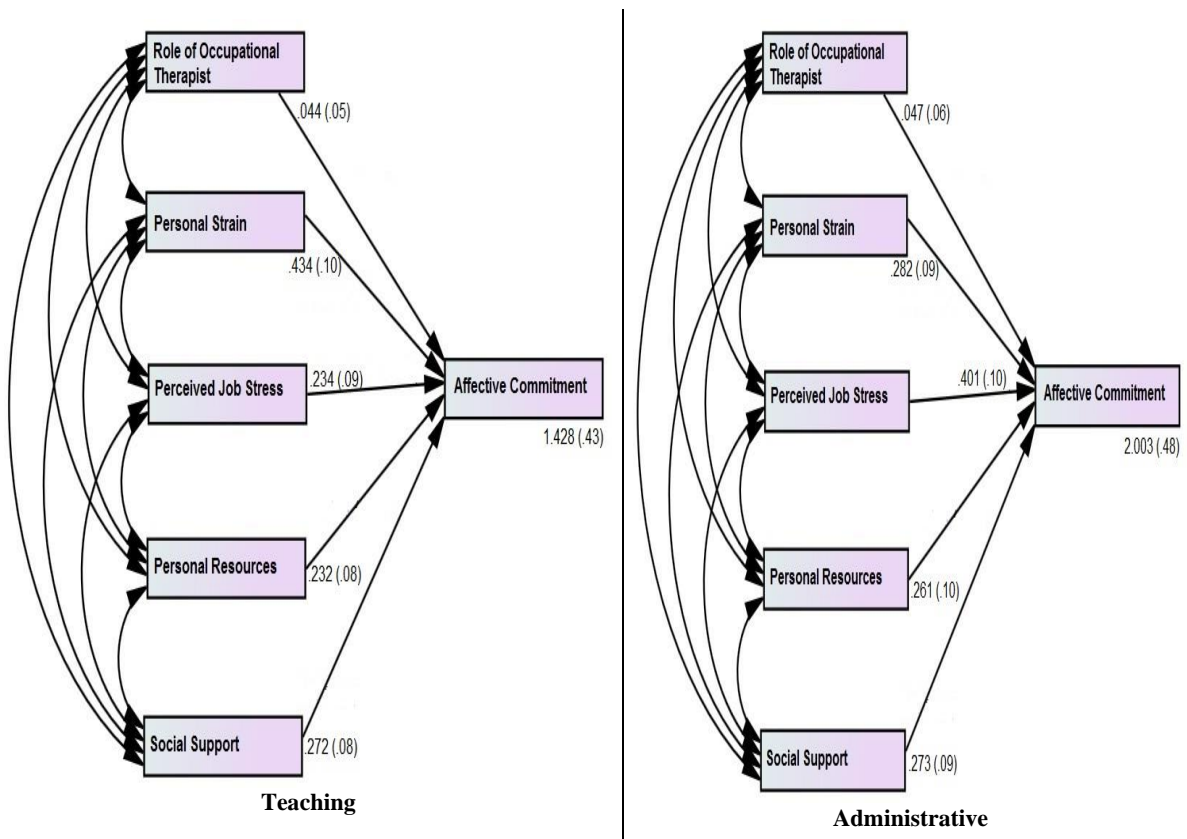


Figure 5. 14: Multiple regressions on the affective commitment in contrasting faculties.

Table 5. 54: Coefficients^{a, a', b}

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	1.428	.437		3.268	.001
Teaching	Role of Occupational Therapist	.044	.055	.050	.789	.431
Non-teaching		.047	.066	.048	.715	.475
Teaching	Personal Strain	.434	.100	.355	4.354	.000
Non-teaching		.282	.097	.244	2.907	.002
Teaching	Perceived Job Stress	.234	.095	.200	2.452	.015
Non-teaching		.401	.102	.303	3.933	.000
Teaching	Personal Resources	.232	.083	.290	2.795	.007
Non-teaching		.261	.100	.254	2.612	.041

Teaching	Social Support	.272	.087	.217	3.126	.004
Non-teaching		.273	.099	.245	2.756	.006

a. Faculty = 1.0 – Teaching

a'. Faculty = 2.0 - Administrative

b. Dependent Variable: Affective Commitment

The statistical tests confirmed that the affective commitment of the teaching and administrative staff is not statistically significantly affected by the role of occupational therapist. There is no evidence against a null hypothesis and, therefore, it cannot be rejected ($=0.431 > 0.05, p > \alpha$; $=0.475 > 0.05, p > \alpha$; Table 5.54). This is a new development, as there is no previous study that has explored this dimension. However, considering the non-teaching as operational layer, this study indirectly supports Haque and Aston (2016). Personal strain has a statistically significant effect on the contrasting faculty staff working at the public universities. There is strong evidence against a null hypothesis and, therefore, it is rejected ($=0.000 < 0.05, p < \alpha$; $=0.002 < 0.05, p < \alpha$; Table 5.54). In other words, personal strain is a significant determinant in relation to the affective commitment of the teaching and non-teaching staff. Interestingly, personal strain has a high statistically significant effect, on the AC of teaching staff, while personal strain has a relatively significant effect on the AC of non-teaching staff. This again is a new development, however, when considering the administrative as operational layer, this study partially supports Haque and Yamoah (2014) and Haque and Aston (2016). Additionally, perceived job stress, personal resources and social support are evident to be statistically significant in determining the affective commitment of the teaching and administrative staff ($PJS=0.015 < 0.05, p < \alpha$; $=0.000 < 0.05, p < \alpha$; $PR=0.007 < 0.05, p < \alpha$; $=0.041 < 0.05, p < \alpha$; $SS=0.004 < 0.05, p < \alpha$; $=0.006 < 0.05, p < \alpha$; Table 5.54). These are all new developments of the present study.

Table 5. 55: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437 ^b	.419	.371	1.18602
2	.450 ^b	.420	.382	1.20737

a. Faculty: 1=Teaching and 2=Administrative

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Normative Commitment

Table 5. 56: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	65.861	5	13.172	9.364	.000 ^c
	Residual	279.993	199	1.407		
	Total	345.854	204			
2	Regression	73.263	5	14.653	10.052	.000 ^c
	Residual	290.142	199	1.458		
	Total	363.405	204			

a. Faculty = 1.0 – Teaching

a'. Faculty = 2.0 - Administrative

b. Dependent Variable: Normative Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

The model summary confirmed that a variation over 40% in normative commitment is predicted by the variables of interest through this model (Table 5.55). In addition, the F-score reflects an acceptable explanatory power, as the significance value is statistically significant.

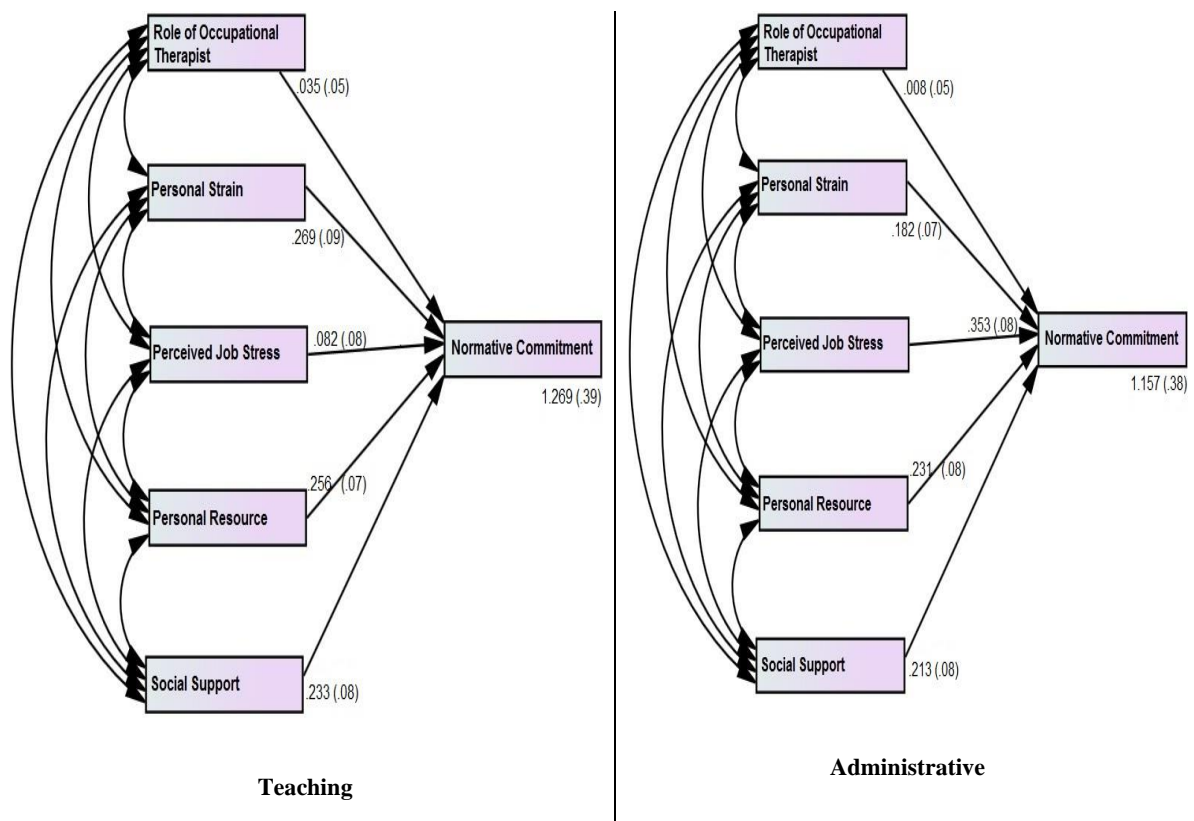


Figure 5. 15: Multiple regressions on the normative commitment in contrasting faculties.

Table 5. 57: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.269	.398		3.190	.002
Teaching Role of Occupational Therapist	.035	.050	.046	.697	.487
Non-teaching	.008	.053	.010	.153	.878
Teaching Personal Strain	.269	.091	.254	2.963	.003
Non-teaching	.182	.078	.181	2.333	.003
Teaching Perceived Job Stress	.082	.087	.081	.948	.344
Non-teaching	.353	.082	.331	4.299	.000
Teaching Personal Resources	.256	.076	.263	3.368	.000
Non-teaching	.231	.080	.253	2.872	.005
Teaching Social Support	.233	.080	.246	2.927	.004
Non-teaching	.213	.080	.215	2.663	.002

a. Faculty = 1.0 – Teaching

a'. Faculty = 2.0 - Administrative

b. Dependent Variable: Normative Commitment

The statistical test confirmed that there is no statistically significant role played by the occupational therapist in determining the normative commitment of teaching and non-teaching staff at university level. Hence, there is no significant evidence against a null hypothesis ($=0.487 > 0.05, p > \alpha; =0.878 > 0.05, p > \alpha$; Table 5.57). This is a new development, as there is no evidence of this in previous research. Perceived job stress is evident to be statistically significant for administrative staff, whereas it is non-significant for teaching staff ($=0.000 < 0.05, p < \alpha; =0.344 > 0.05, p > \alpha$; Table 5.57). Hence, this reflects that perceived job stress is highly significant in affecting the normative commitment of non-teaching staff, while it has no role in determining the NC of teaching staff. Again, there is no evidence regarding it, but the

study partially contradicts Haque and Aston (2016) in that the commitment of operational level employees is significantly affected by perceived job stress. Interestingly, personal strain, personal resources and social support have a statistically significant impact on the normative commitment of teaching and administrative staff at public universities (Teaching staff: $PS=.003 < 0.05, p < \alpha$; $PR=0.000 < 0.05, p < \alpha$; $SS=.004 < 0.05, p < \alpha$; Non-teaching staff: $PS=.003 < 0.05, p < \alpha$; $PR=.005 < 0.05, p < \alpha$; $SS=.002 < 0.05, p < \alpha$; Table 5.57). Thus, there is strong evidence against a considered null hypothesis and, therefore, it is rejected. There is no evidence from empirical research about this and, therefore, it is a new development. Nevertheless, Haque and Aston (2016) is partially confirmed regarding taking administrative staff as operational level employees.

Table 5. 58: Model Summary^{a,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.445 ^b	.420	.378	1.29170
2	.522 ^b	.472	.454	1.33356

a. Faculty: 1=Teaching and 2=Administrative

b. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

c. Dependent Variable: Continuance Commitment

Table 5. 59: ANOVA^{a,b, a' b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.5446	5	16.309	9.774	.000 ^c
	Residual	332.132	199	1.669		
	Total	413.676	204			
2	Regression	131.787	5	24.357	14.821	.000 ^c
	Residual	353.822	199	1.778		
	Total	485.609	204			

a. Faculty = 1.0 – Teaching

a'. Faculty = 2.0 - Administrative

b. Dependent Variable: Continuance Commitment

c. Predictors: (Constant), Social Support, Personal Strain, Role of Occupational Therapist, Perceived Job Stress, Personal Resources

Approximately over 40% variations in continuance commitment are explained by the predictors in this model (Table 5.58). Moreover, the explanatory power is acceptable because the sig-value is less than alpha, reflecting statistical significance. In other words, the model is a good fit for the data (Table 5.59).

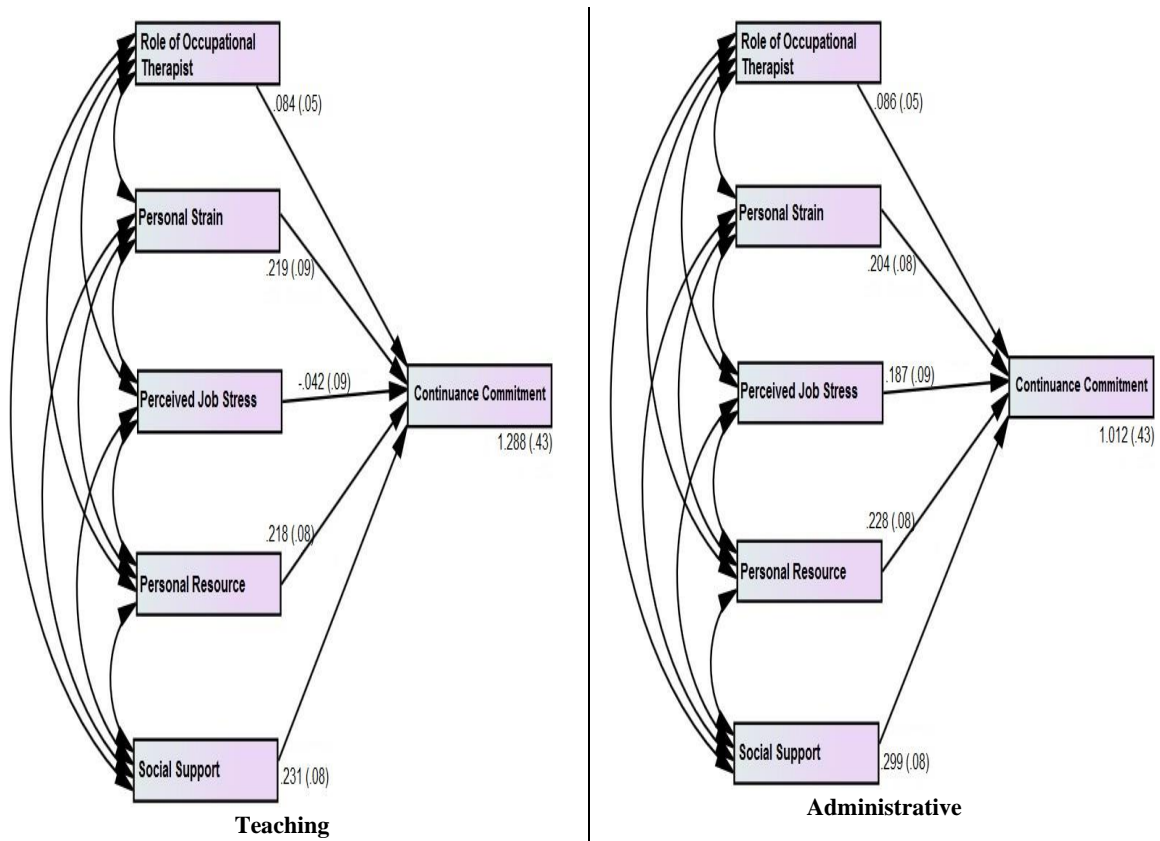


Figure 5. 16: Multiple regressions on the continuance commitment in contrasting faculties.

Table 5. 60: Coefficients^{a, a', b}

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.288	.433		2.972	.003
Teaching Role of Occupational Therapist	.084	.055	.101	1.535	.126
Non-teaching	.086	.059	.095	1.465	.144
Teaching Personal Strain	.219	.099	.210	2.212	.002

Non-teaching	.204	.087	.119	2.345	.002
Teaching Perceived Job Stress	-.042	.095	-.038	-.446	.656
Non-teaching	.187	.091	.152	2.064	.040
Teaching Personal Resources	.218	.083	.224	2.631	.009
Non-teaching	.228	.089	.216	2.569	.011
Teaching Social Support	.231	.087	.223	2.659	.008
Non-teaching	.299	.088	.287	3.381	.001

a. Faculty = 1.0 – Teaching

a'. Faculty = 2.0 - Administrative

b. Dependent Variable: Continuance Commitment

The results showed that the role of the occupational therapist does not have a statistically significant effect on the continuance commitment of teaching and administrative staff at public universities in the UK and Pakistan ($=0.126 > 0.05, p > \alpha$; $=0.144 > 0.05, p > \alpha$; Table 5.60). Hence, a null hypothesis cannot be rejected. This is again a new development. However, when considering administrative employees as an operational layer of management, the present findings support Haque and Aston (2016). Perceived job stress has a statistically significant effect on the continuance commitment of non-teaching staff but has a non-significant impact on the teaching staff's CC ($=0.040 < 0.05, p < \alpha$; $=0.656 < 0.05, p > \alpha$; Table 5. 60). Personal strain, personal resources and social support are evident to have a statistically significant role in determining the continuance commitment of the contrasting faculties. Thus, null hypotheses are rejected (Teaching staff: PS= $0.002 < 0.05, p < \alpha$; PR= $0.009 < 0.05, p < \alpha$; SS= $0.008 < 0.05, p < \alpha$; Non-teaching staff: PS= $0.002 < 0.05, p < \alpha$; PR= $0.011 < 0.05, p < \alpha$; SS= $0.001 < 0.05, p < \alpha$; Table 5. 60). This is a new development, but it partially supports Haque and Aston (2016).

Table 5. 61: Group Statistics

	Faculty	N	Mean	Std. Deviation	Variance
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Representation of Occupational Therapist	Teaching	204	.3645	.26694	.071
	Non-teaching	202	.3379	.23335	.054
Effectiveness of Occupational Therapist	Teaching	204	3.8350	1.7123	2.93
	Non-teaching	202	3.0082	1.6975	2.88
Personal Strain	Teaching	204	3.7810	1.2298	1.51
	Non-teaching	202	3.8480	1.3106	1.71
Perceived Job Stress	Teaching	204	3.7525	1.2875	1.69
	Non-teaching	202	3.8007	1.2505	1.56
Personal Resources	Teaching	204	3.6569	1.4621	2.13
	Non-teaching	202	3.3775	1.4612	2.13
Social Support	Teaching	204	3.9583	1.3760	1.89
	Non-teaching	202	3.4608	1.4850	2.20
Affective Commitment	Teaching	204	3.6275	1.6559	2.74
	Non-teaching	202	3.9412	1.5017	2.25
Normative Commitment	Teaching	204	3.5735	1.3351	1.78
	Non-teaching	202	3.8578	1.3024	1.69
Continuance Commitment	Teaching	204	3.6127	1.4244	2.02
	Non-teaching	202	3.3873	1.5439	2.38

The third dimension is faculty where visibility, preference and usage are examined in this research. Teaching and administrative staff from the UK and Pakistan were targeted. The results revealed that the rate of representation of the occupational therapist at university is highly visible among administrative staff, in contrast to teaching staff ($=3.379 < .3645$, Table 5.61). In addition, the effectiveness of the occupational therapist is highly evident among non-teaching staff in comparison to teaching staff, as the mean value is significantly lower reflecting a higher visibility of effectiveness ($=3.0082 < 3.8350$, Table 5.61). The mean difference is also significant, reflecting the comparison in terms of visibility is higher. Interestingly, personal strain and perceived job stress are higher among teaching staff, in contrast to administrative staff.

The results showed that a higher level of personal strain is visible among teaching staff ($=3.7810 < 3.8480$, Table 5.61). In addition, perceived job stress is also highly visible among teaching staff in comparison to administrative staff ($=3.7575 < 3.8007$, Table 5.61). Personal resource and social support are higher among non-teaching staff. This further confirms that the ability to cope effectively with personal strain and job-related stress is very much dealt with by use of personal resources and social support at workplace by administrative staff. The usage of personal resources among non-teaching staff is highly visible, in contrast to teaching staff ($=3.3775 < 3.6569$, Table 5.61). Furthermore, social support is also effectively used at the workplace by non-teaching staff, in comparison to teaching staff ($=3.4608 < 3.9583$, Table 5.61). Moreover, organisational commitment was examined within the contrasting faculties and results showed that overall organisational commitment is higher among administrative staff, in contrast to teaching staff. Interestingly, AC and NC are highly visible in teaching staff, whereas CC is higher among non-teaching staff. A further, detailed analysis revealed that continuance commitment is highly visible, followed by normative and affective commitment (teaching-CC= $3.3873 < 3.6127$, non-teaching-NC= $3.5735 < 3.578$, non-teaching-AC= $3.6275 < 3.9412$, Table 5.61).

After attaining numerical expression for the variables of interest, the researcher explored the research phenomenon in a qualitative way. Below are the interview findings and discussion.

5.3 Interview Findings and Discussion

	PAKISTAN		UNITED KINGDOM		
	Male	Female	Male	Female	Total

Teaching	13	12	12	12	49
Non-teaching	12	12	12	13	49
Total	25	24	24	25	98

Figure 5. 17: Frequency of interview respondents in contrasting economies.

A total of 98 respondents participated in the qualitative interviews. It was ensured that 50% each in terms of countries, gender and faculty are included as shown above.

Analysis revealed that staff of the UK were more experienced than teaching staff in Pakistan, whereas the non-teaching staff had a higher number of relatively inexperienced by comparison with teaching staff. Female respondents had less (3-5 years) experience and were in their mid 30s to early 40s, whereas males had higher (9-12 years) experience and were in their 40s to mid-50s.

As part of the attitudinal questions, the respondents were asked about their feelings regarding their jobs. Results showed that an overall majority were satisfied (82%). However, the teaching staff were more satisfied about their job role compared with non-teaching staff (88% against 76%).

Females were more satisfied than males (89% against 76%). However, when considering the variation within the countries, Pakistani teaching staff were more satisfied than non-teaching (92% against 75%) while in terms of gender there is not much variation between males and female's satisfaction (88% against 89%). In the UK, there is no significant overall difference between teaching and non-teaching staff (76% against 75%) but males were more satisfied about their job roles (87% against 64%).

5.3.1 Most likely job feature

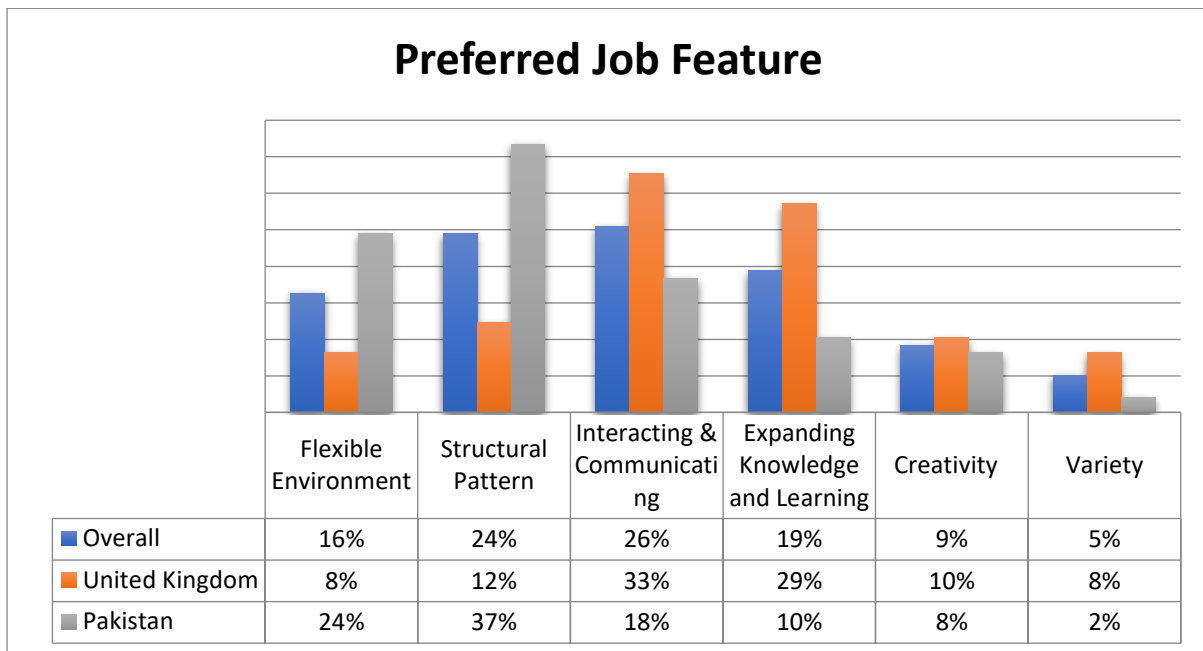


Figure 5. 18: Free Text comments addressing most liked job-features at the public universities in Pakistan and the UK.

From the above figure, it is evident that ‘interacting and communicating’ and ‘expanding knowledge and learning’ are two of the liked job-features that are higher in the UK than Pakistan. On the other hand, ‘structural pattern’ and ‘flexible environment’ are most liked job-features in Pakistan than the UK. It reflects there are differences in two distinctive economies. In both economies the liked job-features are different. However, the similar liked job-feature in both economies is ‘creativity’.

Pakistani (teaching staff) respondent 1: *“Course structure. It is set pattern. I like such stable routine”* (See Appendix A)

UK (teaching staff) respondent 1: *“Interacting with people. It does not stop you at one point in life. It keeps you going as you have opportunities to grow. Help others in careers”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“Flexible Style and Social Environment. It gives me a peace of mind”* (See Appendix A)

UK (teaching staff) respondent 2: *“It’s really about interacting by helping students to achieve goals. Sort of enhancing their careers”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“Flexible environment. There is no pressure. We work as a team”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Interacting with students. That’s is what I am here for and I enjoy it”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Healthy Environment. There is no work pressure”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“Dealing with students. I am into customer services for long and I like to communicate with students”* (See Appendix A)

Pakistani male: *“Structural work. Changes usually irritate me”* (See Appendix A)

UK male: *“Intellectual activities. Sharing Knowledge”* (See Appendix A)

Pakistani female: *“Interacting with students. Opportunity to communicate ideas. Ideas are communicated. This position offers me a chance to interact and learn more”* (See Appendix A)

UK female: *“I like when any student achieves something great. I talk to my students. Since I give knowledge to students and support them become better”* (See Appendix A)

Here respondents had been asked about the most liked job feature and, overall, the responses showed that the majority stated, *“interacting and communicating”* (26%), followed very closely by *“structural pattern”* (24%) and *“expanding knowledge and learning”* (19%). In terms of faculty, teaching staff very much liked *“expanding knowledge and learning”* (33%), while non-teaching staff preferred *“structural pattern”* (41%). Additionally, when considering gender, the results revealed that females liked *“interacting and communicating”* (27%), while males preferred *“structural pattern”* (29%). Nevertheless, from the perspective of the

contrasting economies, it was revealed that in Pakistan, “*structural pattern*” (37%), followed by “*flexible environment*” (24%) and “*interacting and communicating*” (18%) were the most liked job features. Teaching staff stated that “*interacting and communicating*” was their most liked job feature (32%), while administrative staff preferred “*structural pattern*” (58%). Moreover, females preferred “*flexible environment*” and “*structural pattern*” equally (30% each), (features which are implicitly opposing) while males preferred “*flexible environment*” (44%). In the UK, the preference was for “*interacting and communication*” (33%), followed closely by “*expanding knowledge and learning*” (29%) and “*structural pattern*” (12%). Teaching staff specified “*expanding knowledge and learning*” (54%), whereas non-teaching staff preferred “*interacting and communicating*” (44%). Males and females were virtually identical in identifying “*expanding knowledge and learning*” (28% against 29%), followed by “*interacting and communicating*” (33% against 32%).

5.3.2 Most disliked job attribute

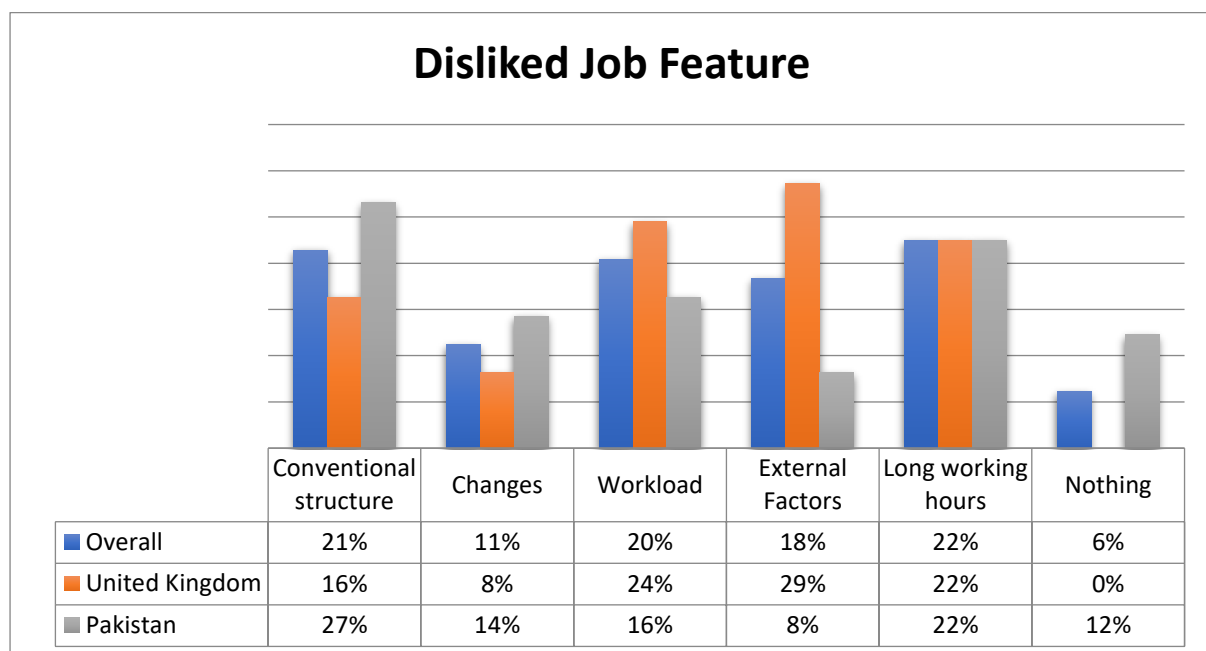


Figure 5. 19: Most disliked job-related feature at the public universities in Pakistan and the UK.

Pakistani (teaching staff) respondent 1: “*Lack of practical exposure for students. Following traditional text book is not good idea*” (See Appendix A)

UK (teaching staff) respondent 1: “*Office Politics. I don’t feel comfortable in such situations. Came here to making human beings better but this way it is not possible*” (See Appendix A)

Pakistani (teaching staff) respondent 2: *“Unnecessary rigid structure. Same modules, same way of assessing. I want practical based learning for my students”* (See Appendix A)

UK (teaching staff) respondent 2: *“Marking scripts... structuring reports. I can’t read writing, especially international students’ writing”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“Its casual type. I don’t like unreliable environment. There is uncertainty. When they need you they involve you else [they do] not ask you”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Making everyone happy. There is politics most of the time”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Rigid policies. High dependence on others for small things”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“Too much other factors like coming from far away”* (See Appendix A)

Pakistani male: *“Many things but mostly orthodox way of teaching. High restrictions on trying different things”* (See Appendix A)

UK male: *“I think moving to online. Marking too much severe... Less paper work. I am a person who likes to have paper rather than looking at screen at the time. Even the travel from Kent to make it is another factor”* (See Appendix A)

Pakistani female: *“Structural and traditional pattern. I want experimentation, so I and students do not get bored”* (See Appendix A)

UK female: *“Changes, Pressure from government. The policies of the government are changing and more people are moving so participation is getting lower”* (See Appendix A)

Respondents were asked about their most disliked job feature and their overall responses showed that “*long working hours*” (22%), followed by “*conventional structure*” (21%) and “*workload*” (20%) were the most disliked. Teaching staff very much disliked “*long working hours*”, while non-teaching staff identified “*workload*” as the most disliked (24% and 22%). Interestingly, males considered “*long working hours*” (24%), whereas females stated that “*conventional structure*” and “*long working hours*” were their most disliked job features (20% each). In depth-analysis revealed that, in Pakistan, “*conventional structure*” is a highly disliked job attribute (27%). Teaching staff identified “*conventional structure*” (32%) and “*Long working hours*” as their most disliked job attributes, whereas non-teaching staff identified “*workload*” (25%). Interestingly, males reported “*long working hours*” and “*conventional structure*” as equally disliked features (28%), followed by “*changes*” and “*workload*” (16%), whereas females identified “*conventional structure*” (25%). Interestingly, females, especially in the teaching faculty, stated “*nothing*” (21%), reflecting that females, in contrast to males are less dissatisfied. On the other hand, in the UK, “*external factors*” are the most disliked job-related feature (29%). Teaching staff considered “*workload*” (29%), followed by “*external factors*” and “*long working hours*” (25%) as their most disliked job-related features, while non-teaching staff identified “*external factors*” (32%).

The occupational classification of employees reflects that perhaps male enjoy more competitive games (Yee, 2017), while females find it more distasteful (Deng et al., 2016). It could be argued that disliked features could be due to respondents’ understanding and interpretation of the situation (Deng et al, 2016). Academic and non-academic staff differ noticeably, and it could be said that it takes years for academics to establish their place while it is not as difficult for the non-academics. Perhaps, this could also be a contributing factor for the distinctions we noted. Males, in contrast to females, scored higher in identifying “*external factors*” (29% against 28%), partially supporting Mark and Smith (2018), Haque *et al.*, (2018) and Haque and Aston (2016) because all attributes are evident to some extent, contributory to stress.

5.3.3 Dislike feature affecting university staff

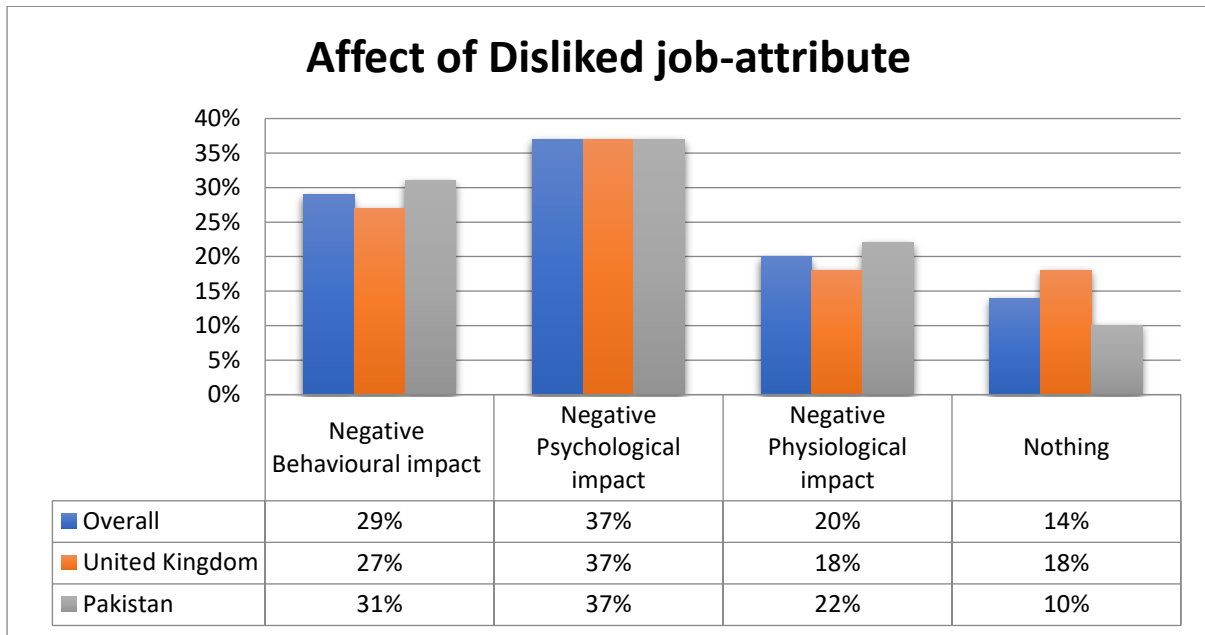


Figure 5. 20: Dislike feature affecting employees at the public universities.

Pakistani (teaching staff) respondent 1: *“Emotional disbalance at times”* (See Appendix A)

UK (teaching staff) respondent 1: *“De-motivated. At times pessimistic thoughts occur”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“I think efficiency declines. My mind is disturbed”* (See Appendix A)

UK (teaching staff) respondent 2: *“Yes, if I can’t read English of poor structure I feel agitated”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“I have irritation. Sometimes I am moody”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“All the time feel worrying about things”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Efficiency comes down. I have disturbed sleep pattern. My mood is affected”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“Yes, efficiency affects. It is mostly fatigue”* (See Appendix A)

Pakistani male: *“Feel irritation. Mood swings”* (See Appendix A)

UK male: *“It certainly does, especially when systems doesn’t work. I often feel angry and it is demoralizing when system stops working. I lash out on others. It’s not good thin later when I realize my mistake I say sorry to people I misbehaved with”* (See Appendix A)

Pakistani female: *“I have psychological depression. I feel stress negatively affects me”* (See Appendix A)

UK female: *“Yes, I get upset. Become moody”* (See Appendix A)

After identifying the disliked job feature, participants were asked about its impact on their working pattern. In both countries, disliked job features leave a negative psychological impact on the majority of the public university personnel (37%). Furthermore, this is followed by negative behavioural impact (29%). The negative behavioural impact is higher in Pakistan, in contrast to the UK (31% against 27%). Overall, teaching staff reported a higher negative psychological impact, whereas non-teaching staff reported a negative physiological impact (53% against 33%). Interestingly, the majority of females stated a negative psychological impact (47%), whereas males reported behavioural impact (31%). Our analysis suggests that the negative psychological impact is high in both Pakistan and the UK (54% against 52%), followed by negative behavioural impact (29% against 36%). The majority of non-teaching staff in Pakistan reported negative physiological impact, in contrast to the UK (38% against 28%). Interestingly, the results show that non-teaching staff in Pakistan have stated “negative behavioural impact” as the second highest impact (25%), whereas in the UK, “nothing” is how non-teaching staff answer (28%).

Women in the UK reported more negative psychological impact than those in Pakistan (48% against 46%), though the differences are very slight; this was followed by negative behavioural impact, slightly higher among Pakistani females, compared with the UK (29% against 24%). In Pakistan, the the majority of males reported “negative physiological impact” and “negative

behavioural impact” equally (32%), while for the UK the respective proportions were 29% and 25% respectively.

Thus, there are variations in terms of gender and faculty, as psychological impact was reported by teaching- while higher physiological and behavioural impacts are reported by non-teaching staffs. The males have reported higher negative behavioural and physiological impacts, while females reported higher negative psychological impact.

Since administrative work is more related to desk work, it may be to be expected that physiological impacts are more likely to be reported than for teaching staff who will be more engaged in high-level mental work from which we can infer a likelihood of ‘psychological impacts’. The present findings support, to some extent, Haque and Aston (2016). Interestingly, physical and psychological impacts are reported in the UK too and, thus, this study supports Mark and Smith (2018).

5.3.4 Ways to overcome negative impact

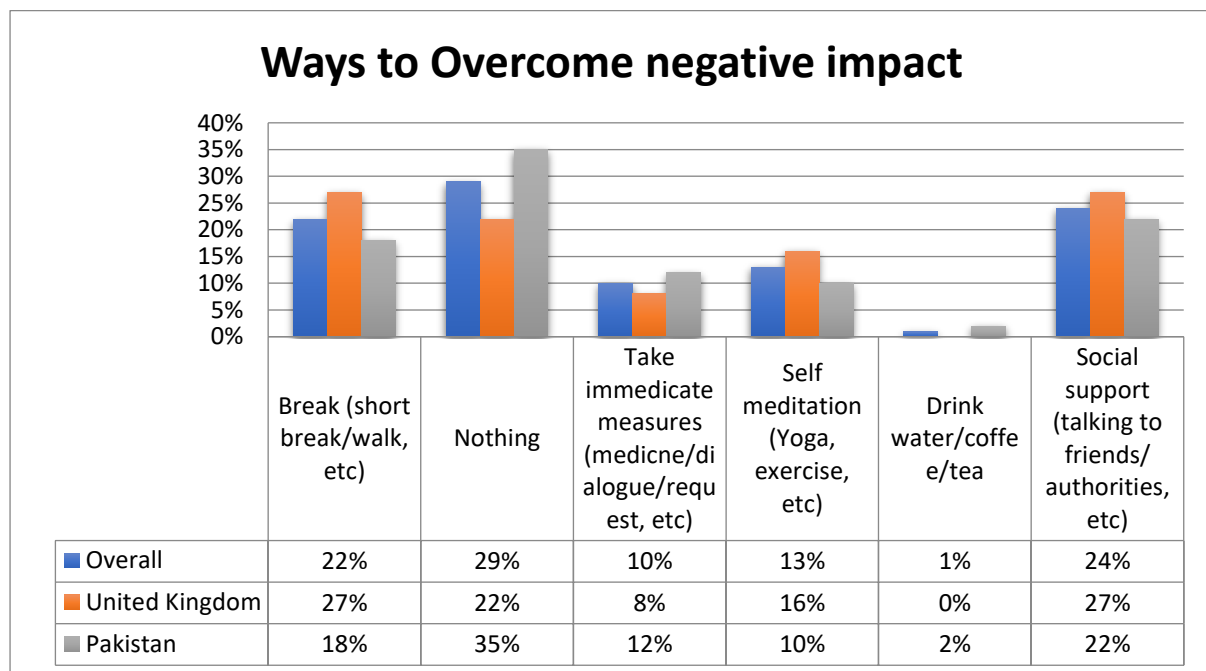


Figure 5. 21: Ways to overcome negative impact.

Pakistani (teaching staff) respondent 1: *“Yes, I talk to my friends, it helps me feel relaxed”*
(See Appendix A)

UK (teaching staff) respondent 1: *“I have sporting background. Sometimes I go for run, gym, exercise etc”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“I discuss my issues with my close ones. Being social helps me overcome it”* (See Appendix A)

UK (teaching staff) respondent 2: *“Personally I do all to keep stable mind. I don’t have colleagues to talk but I do sport etc”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“I go out for a break. I know I can’t do much. I told you I am helpless to object”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“We talk to others. All are in same boat. Structuring it to see if we come over it”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“I take medication. I regularly take co-renaline so my BP remains stable”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“I take break. I have backache issue”* (See Appendix A)

Pakistani male: *“I go to therapist once every 15th day. Physiotherapy is effective, especially in growing age”* (See Appendix A)

UK male: *“You can chat with colleagues. Stress release due to social chat”* (See Appendix A)

Pakistani female: *“The best way of getting out of my depression is talk to someone. It helps in releasing stress”* (See Appendix A)

UK female: *“I talk to my close ones. It just helps me”* (See Appendix A)

Overall, the majority of university staff reported *doing nothing* to overcome negative behavioural, psychological and physiological impacts (29%). The proportion further increased in Pakistan (35%). However, participants reported social support, breaks, meditation and immediate measures to some extent are ways to deal with stress. The comparative analysis revealed that in the UK, social support, breaks and meditation are reported more in contrast to Pakistan, (27% against 22%; 27% against 18%; and 16% against 13%). Interestingly, overall,

non-teaching staff reported using social support and breaks more often than teaching staff (29% against 20%; and 27% against 18%), whereas self-meditation is reported higher by teaching staff, in contrast to non-teaching staff (18% against 8%). In terms of gender, overall social support is highly regarded by females, in contrast to their counterparts (31% against 18%). Similarly, breaks and self-meditation are reported higher by females than males (24% against 20%; and 16% against 10%).

The proportion of males stating “nothing” is higher (35% against 22%) and immediate measures such as medicines, direct dialogues, requests are reported higher by males in contrast to females (14% against 6%). Nevertheless, earlier, this study identified that males had a higher score in negative behavioural and physiological impacts and now the use of less social support and a higher ratio of doing ‘nothing’ further confirms that females reported less negative behavioural and physiological symptoms than males, owing to the effective use of social support. This study largely supports Haque *et al.*, (2018), Haque *et al.*, (2016) and Haque and Aston (2016), while partially supporting Mark and Smith (2018).

The variations are further examined in the distinctive economies. In Pakistan, it is reported that social support is effectively used by teaching staff, in contrast to non-teaching staff, (24% against 21%). On the other hand, breaks and immediate measures are reported clearly higher by non-teaching staff, in contrast to teaching staff (21% against 16%; and 21% against 4%). Additionally, Pakistani females reported using social support and breaks more, in contrast to their counterparts, in dealing with the negative impacts of disliked job attribute (33% against 12%; and 25% against 12%). In contrast, males reported often taking immediate measures to deal with this (20% against 4%). On the other hand, within the UK, non-teaching staff reported using social support more effectively to overcome the negative impacts of disliked job attribute, in contrast to teaching staff (36% against 17%) followed by breaks (32% against 21%). On the other hand, self-meditation, such as yoga, exercise, listening to music, engaging oneself in something, are more commonly reported by teaching staff than non-teaching staff (21% against 12%). Moreover, females reported using social support and self-meditation more effectively than their counterparts (28% against 25%; and 20% against 13%). On the other hand, males reported often regularly take breaks in order to deal with the negative impact of job attributes, in contrast to females (29% against 24%). The findings are interesting, as the faculty in the contrasting economies vary at length but in terms of gender, it is confirmed that social support is more effectively used by the females in dealing with the stressors. Thus, this study largely supports Haque *et al.*, (2018), Haque *et al.*, (2016) and Haque and Aston (2016).

5.3.5 Rate and effectiveness of the Occupational Therapist

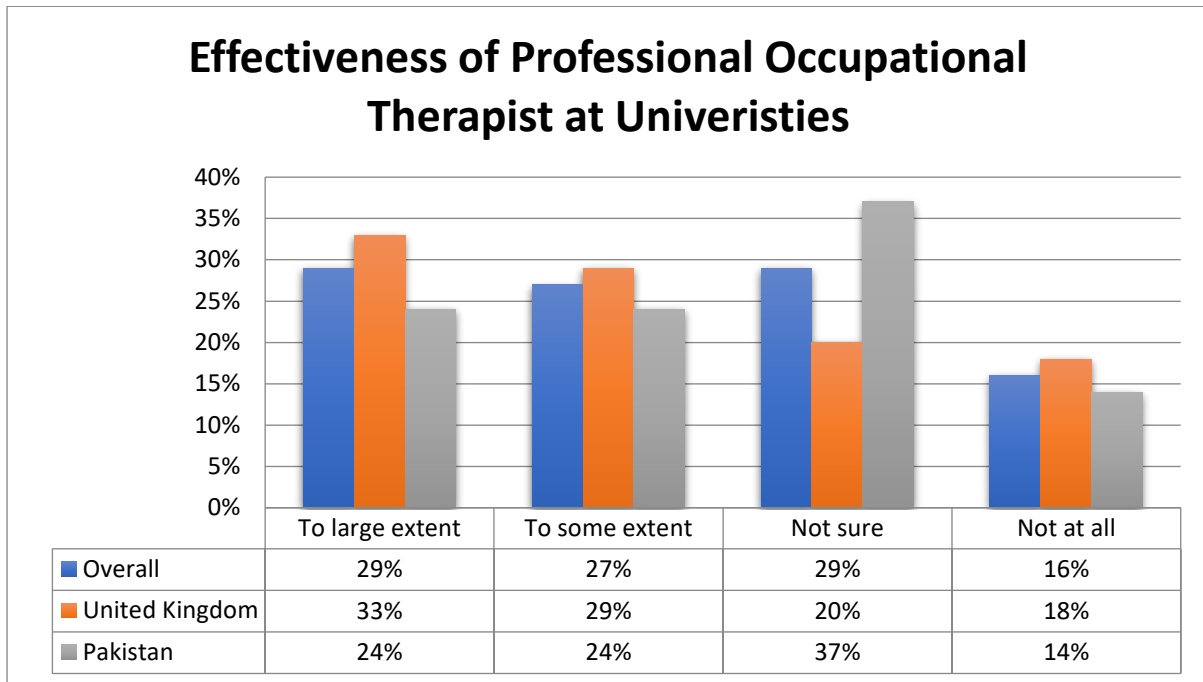


Figure 5. 22: Effectiveness of the Occupational therapist.

Pakistani (teaching staff) respondent 1: *“To some extent”* (See Appendix A)

UK (teaching staff) respondent 1: *“I believe to some extent. I find it effective. Helps you overcome issues”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“To some extent. It much brings positive dependent in workers”* (See Appendix A)

UK (teaching staff) respondent 2: *“It’s Ok. Low but for time being it should be effective in helping people to some extent”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“No. its personal ability to overcome your ongoing stress”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“I don’t think these occupational therapists can help at all. It’s yourself that you will find solution to your problem”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“A very little but not much because I think only change in setup can help”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“No. It is not effective at all”* (See Appendix A)

Pakistani male: *“No. If it was, I wouldn’t have used pills. They just sit to talk”* (See Appendix A)

UK male: *“In order to be effective, it has to be communicated. Like tell us and at present, it is not communicated well. Depends on type of person, extrovert might open and find it effective. I won’t easily open I don’t think it is going to be effective”* (See Appendix A)

Pakistani female: *“Certainly can be effective. Professionals always help professionals to better”* (See Appendix A)

UK female: *“Yes, I have used in another institution and it’s very useful. It provides immediate solution”* (See Appendix A)

In this study, the respondents were asked about the presence of professional occupational therapists at the university; higher in the UK (a developed economy) than in Pakistan (developing economy). Additionally, it is also evident that “no representation” of the professional occupational therapist is higher at the universities in Pakistan, in contrast to the UK (37% against 12%). In addition, in this regard, the qualitative findings support the earlier quantitative findings. Hence, the study is aligned with Haque and Aston (2016) in that the rate of representation of occupational therapist is relatively low in the emerging economy, in contrast to the developed economy. However, their work was carried out in the private IT sector and now the same findings have been confirmed in the public education sector. This is a new development of the present study. Non-teaching staff had a higher score than teaching staff regarding no representation (27% against 22%). Moreover, males had a higher score in contrast to females (29% against 20%). Nevertheless, traces of the rate of representation of occupational therapist are evident, to a certain extent, in contrasting economies.

Since, the rate of representation is evident, to a certain extent thus, the effectiveness is measured. It is evident that an overall majority of the respondents confirmed the effectiveness

of the professional occupational therapist (29%); however, the UK (developed economy) had a higher score than Pakistan (emerging economy). Nevertheless, overall, teaching staff reported the role of the occupational therapist more effective, in contrast to non-teaching staff (31% against 22%), whereas males, in contrast to females, reported it ineffective in reducing stressors (27% against 6%). Thus, overall, to some extent occupational therapist role is effective but females reported it more effective than males. Since, the teaching staff earlier identified negative psychological impact higher while negative behavioural and physiological impacts were identified by non-teaching. Same was evident in case of gender as males stated latter two and females attributed psychological thus the effectiveness is also higher for females and teaching staff because the professional therapist is mainly involved in improving the psychological aspects. In other words, the employees, having psychological symptoms perceived the role of the occupational therapist more effective, while employees with behavioural and physiological symptoms found it less effective.

5.3.4 Awareness and effectiveness of Social Support at workplace

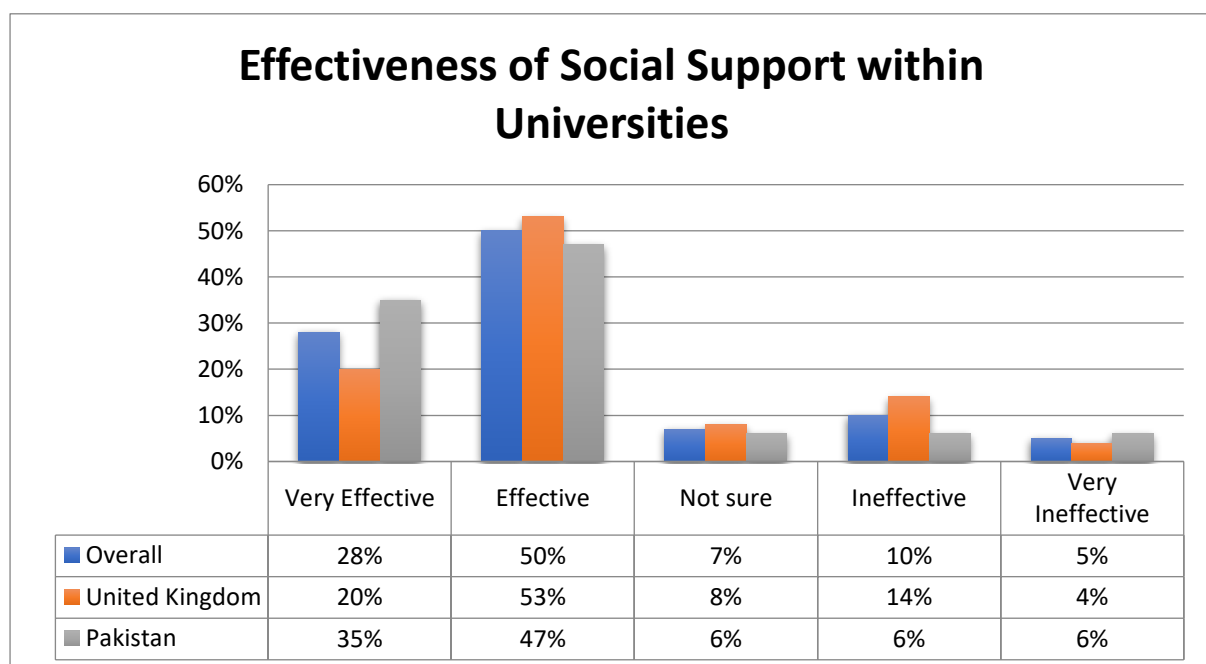


Figure 5. 23: Social support and effectiveness of the social support.

Pakistani (teaching staff) respondent 1: “Yes. Social orientation and support to improve well-being. Yes. Yes. When I am unable to come I do get support from faculty. They understand my concerns. Yes” (See Appendix A)

UK (teaching staff) respondent 1: *“Yes, I am familiar with it. There is technical support formally and peer support informally. Yes, it is very useful. I have used it and found it very effective”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“Yes. Help and support from university. Yes. Yes. It was excellent. Everyone helps you. You don’t feel alone in crunch situations. Yes, it helps you very much”* (See Appendix A)

UK (teaching staff) respondent 2: *“Yes, its environment of cooperation. Informally Yes, I have used. One I can’t come for exams so asked colleague to cover me. Very very effective”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“Friendly and supportive environment. Yes, we have and we all use it. Very effective”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Yes, I know we have support system for all. We care about each other. Yes, I do use it frequently. We cover each other. Yes, very effective”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Yes. I can’t define but I have idea. Social, technological, emotional etc support from authorities to ensure you are not left by your own. Yes. Yes. Very effective. Yes”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“Yes. I have used it at times. Very useful”* (See Appendix A)

Pakistani male: *“Yes I am aware but can’t explain. Yes, I have used. It is present here and its good experience. Very useful”* (See Appendix A)

UK male: *“Physical, technical, and people support at desk. Yes, we informally have and I do use it. I find it effective for myself”* (See Appendix A)

Pakistani female: “Not just heard I actively use it. I don’t know how to explain it, Social being at department. Yes. Yes. Great... Any time I need any help. My fellow colleagues help me. Indeed” (See Appendix A)

UK female: “Yes, support from others around you. A lot of having opportunities, workshops, etc to resolve issues. Yes, its effective” (See Appendix A)

The pattern of awareness of social support at the workplace was explored and results showed that the majority of the respondents had knowledge and awareness of both formal and informal social support. The second step was measuring the effectiveness of the social support and results revealed that, overall, 28% of employees reported it highly effective, whereas 50% found it effective. Interestingly, the comparative analysis revealed that Pakistan scored higher, in contrast to the UK, in finding social support effective to a certain extent (82% against 73%). Again, the qualitative findings are aligned with the quantitative findings. Earlier, the visibility of social support was reported higher in the emerging economy, in contrast to the developed economy, and now effectiveness is also found in the country with higher visibility. Hence, in this regard, the present study supports Haque *et al.*, (2018), Williams *et al.*, (2017), Haque *et al.*, (2016), and Haque and Aston (2016), to a large extent, in that social support is clearly more effective in the emerging economies, in contrast to the developed economy. Interestingly, overall, the effectiveness, to a certain extent, is reported by both teaching and non-teaching staff but the teaching staff scored fractionally higher (84% against 71%).

The detailed analysis revealed that social support is often received in an informal manner to reduce stress and, hence, these findings support Mark and Smith (2018). Interestingly, the quantitative findings revealed higher visibility in non-teaching staff, but the detailed analysis confirmed that, despite higher visibility, effective use is made by teaching staff. This is a new development, as previously there was no conclusive evidence regarding the variation in the effectiveness of social support for contrasting faculties. Nevertheless, the phenomenon was explored through the funnel approach and results again showed that experienced teaching staff, in the age bracket of 40 and above, reported using social support more constructively. Again, Mark and Smith (2018) found that in the UK, experienced staff use social support more effectively for dealing with stress and, therefore, this study supports their findings. Additionally, their findings are evident in the UK but with the present findings the notion is also confirmed in Pakistan (emerging economy).

Interestingly, overall, in contrast to their counterparts, males scored higher in finding social support effective at the workplace (84% against 72%). Hence, in this aspect, the present study differs with Haque *et al.*, (2018), Haque *et al.*, (2016), Haque and Aston (2016), and Sackey and Sanda (2011). In Pakistan and in the UK, teaching staff scored higher than administrative staff (88% against 75%; and 79% against 68%). Moreover, males, in contrast to females in both Pakistan and the UK, found social support more effective (84% against 79%; and 83% against 69%). Thus, the findings differ from the previous work of Haque *et al.*, (2018), Haque *et al.*, (2016), Haque and Aston (2016) and Sackey and Sanda (2011). It is interesting that although females reported using more social support than males, effectiveness is more evident among males. This led to examining the working experience of the employees by using funnel approach, and, it is evident that overall, employees with 7 or more years' experience in the education sector found social support more constructive and effective in contrast to young and less experienced employees.

5.3.5 Type of Support attained from social support at workplace

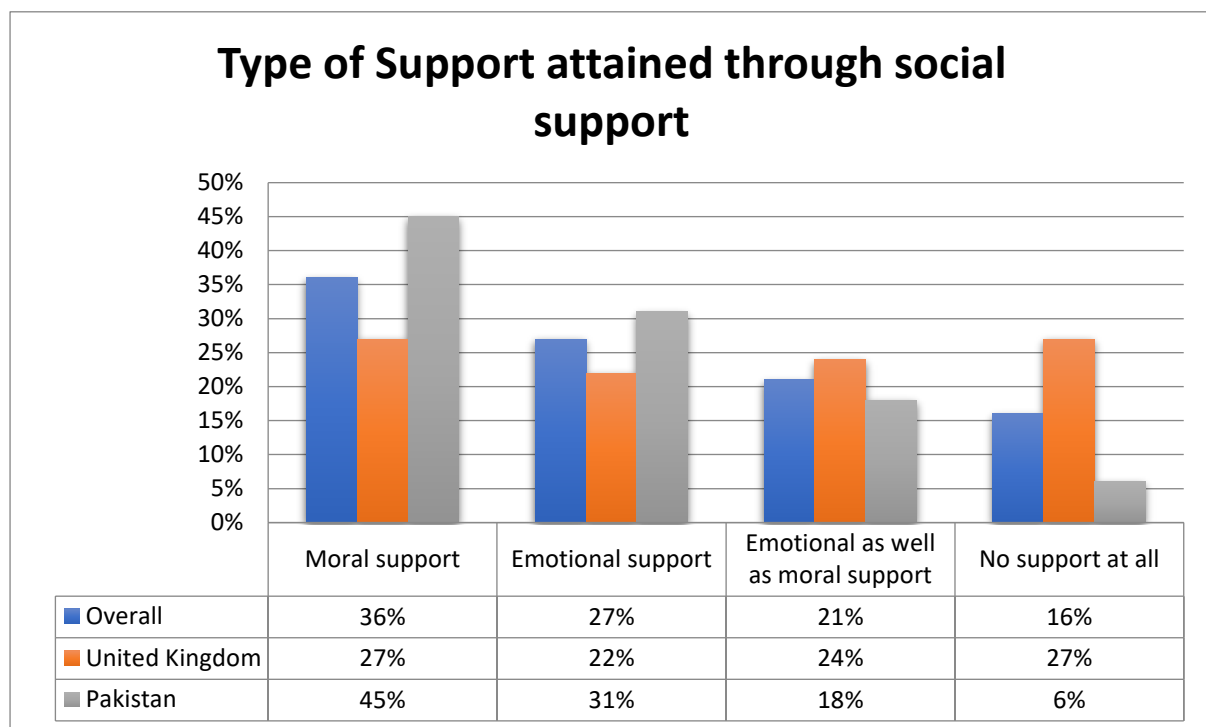


Figure 5. 24: Type of support attained from social support.

Pakistani (teaching staff) respondent 1: *“Only moral support”* (See Appendix A)

UK (teaching staff) respondent 1: *“Not at all. I think organisation doesn’t care how I feel”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“Emotional support”* (See Appendix A)

UK (teaching staff) respondent 2: *“Nothing”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“Moral support”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Combination of both”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Yes, I have gained moral support”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“From my team moral support”* (See Appendix A)

Pakistani male: *“Moral support”* (See Appendix A)

UK male: *“Moral and only moral”* (See Appendix A)

Pakistani female: *“Emotional support definitely”* (See Appendix A)

UK female: *“Yes, I have comfort and received emotional support but not sure if I will get it again or not”* (See Appendix A)

After establishing what respondents thought about the effectiveness of social support, the respondents were asked about the type of support they received frequently through social support and, interestingly, results showed that overall “moral support” is attained by the majority of public university staff (36%). Interestingly, emotional support is also received by public university staff (27%). Nevertheless, the comparative analysis revealed that Pakistan has a higher score than the UK with regard to moral support and emotional support at the workplace (45% against 27% and 31% against 22%). Additionally, there is also evidence that ‘no support at all’ is higher in the UK, in contrast to Pakistan (27% against 6%). Hence, to a large extent, the present findings are aligned with Haque and Aston (2016) in that employees

within the developing economies receive a higher level of emotional and moral support, in contrast to the developed economies. Furthermore, overall, the teaching staff receive a higher level of emotional support, while administrative staff confirmed that they receive “moral support” (37% and 41%). Additionally, females received a higher level of emotional support (41%), whereas males often received moral support (47%).

In Pakistan, the majority of the teaching staff confirmed emotional support (40%) while non-teaching staff stated moral support (54%). On the other hand, in the UK, teaching staff received emotional support (33%) but an equal proportion of teaching staff stated that they received “*no support at all*”. Non-teaching staff confirmed that both types of support were received (36%) but moral support was higher in contrast to emotional support in non-teaching staff (32% against 12%). In terms of gender, the majority of males in Pakistan and the UK stated that they received moral support (64% and 29%), while females in Pakistan and the UK confirmed that they received emotional support (46% and 36%). Interestingly, the ratio of ‘*no support at all*’ is higher in the UK among males in contrast to their counterparts (33% against 20%). This reflects that social support is less effective in providing emotional and moral support in the UK (developed economy) in comparison to Pakistan (emerging economy). Nevertheless, the present finding supports the earlier work of Haque *et al.*, (2018), Haque *et al.*, (2016) and Haque and Aston (2016), to a larger extent, as the present findings confirmed that a high level of emotional support is received by females, while moral support is received by males from the existing social support. Again, the funnel approach revealed that employees with higher experience, who stay with the same organisation, receive emotional, and moral support more often, while employees in the early stages of their career seek higher emotional support from their peers at the workplace.

5.3.6 Stress Management Programme effectiveness at workplace

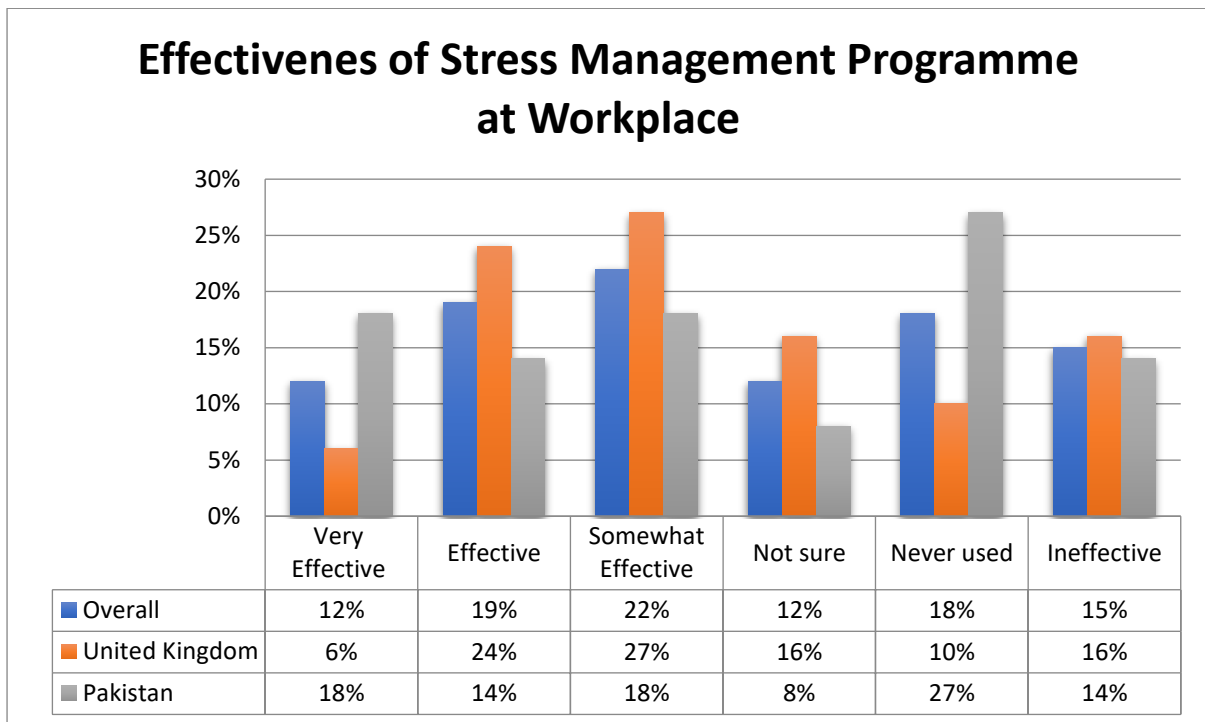


Figure 5. 25: Stress management effectiveness at workplace.

Pakistani (teaching staff) respondent 1: *“Yes but very little. Yes, a bit. Little but effective”*
(See Appendix A)

UK (teaching staff) respondent 1: *“Somewhat useful”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“I have some sessions and I feel it’s quite effective”*
(See Appendix A)

UK (teaching staff) respondent 2: *“At that time it was effective”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“Yes, I have used but not effective”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Yes, they offer stress training program and even helps you if you are feeling any stress. I have used it and its effective”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Yes. Yes. Of course, reduces my immediate stress”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“It’s effective”* (See Appendix A)

Pakistani male: *“Yes. Yes. A lot”* (See Appendix A)

UK male: *“Useful”* (See Appendix A)

Pakistani female: *“Great help. Too much helpful”* (See Appendix A)

UK female: *“Somewhat effective”* (See Appendix A)

The respondents were asked about the use and effectiveness of the stress management programme within the university and results showed that the overall proportion of the employees who have used it and found it effective, to a certain extent, is higher than those who found it ineffective (35% against 9%). Interestingly, the majority of the participants who hadn’t used it found it more effective than those who perceived it as ineffective (28% against 9%). This reflects that respondents who hadn’t used it are only guessing that stress management is effective. It could be argued that respondents who hadn’t used it believe it to be much more valuable. Again, it is debatable thing because such respondents are only guessing it to be invaluable and effective while it doesn’t necessarily have to be the true case. However, those who reported that they have used it and found it effective is also not very clear because there is no way to further explore how effective it had been and in what circumstances. Since there are reported findings of those who used and found it ineffective, thus, it could be argued that the effectiveness of stress management programme could vary from person to person in different circumstances.

Overall, the teaching staff viewed it as more effective in contrast to non-teaching staff (40% against 30%; and 29% against 27%). Moreover, females in contrast to males found it more effective (43% against 28%) and perceiving it to be better than their counterparts (29% against 27%). Overall, it is evident that the stress management programme is effective in dealing with the stress of employees (53%). However, these are reported findings that might only be the guessing of these respondents who find it much more valuable. Interestingly, the proportion further increases in the UK (developed economy) in contrast to Pakistan (emerging economy)

(57% against 50%). Additionally, in Pakistan the proportion of employees who hadn't used it is evident significantly higher (27% against 10%). Moreover, considering overall grounds for faculty aspect, teaching staff scored higher than non-teaching staff in finding it effective (60% against 46%). Interestingly, overall, males scored fractionally higher than females in finding the stress management programme effective (55% against 53%). Since it is evident that the stress management programme is effective, this study is thus aligned with Watson (2000) and CAOT (2010) survey.

An in-depth comparative analysis revealed that in both Pakistan and the UK, teaching staff scored higher than non-teaching staff in finding stress management programme effective (64% against 39%; 59% against 56%). Additionally, the results showed that in the UK, males found it more effective than their counterparts (63% against 52%), whereas in Pakistan, females found it more effective than males (54% against 48%). Hence, this is a new development in that there is a variation in gender in the contrasting economies with males scoring higher than their counterparts. The funnel approach was used to examine the causes and results revealed that UK males have higher experience (7 to 20 years plus) in contrast to females, whereas in Pakistan, males have less experience and females have higher use of a social support system that helped them in dealing with stress more effectively. Interestingly, the funnel approach revealed that social support and stress management programme are preferred more by public universities' personnel rather than the services of the professional occupational therapist for dealing with stress in both countries, irrespective of gender and faculty.

5.3.7 Affective Commitment at the Universities

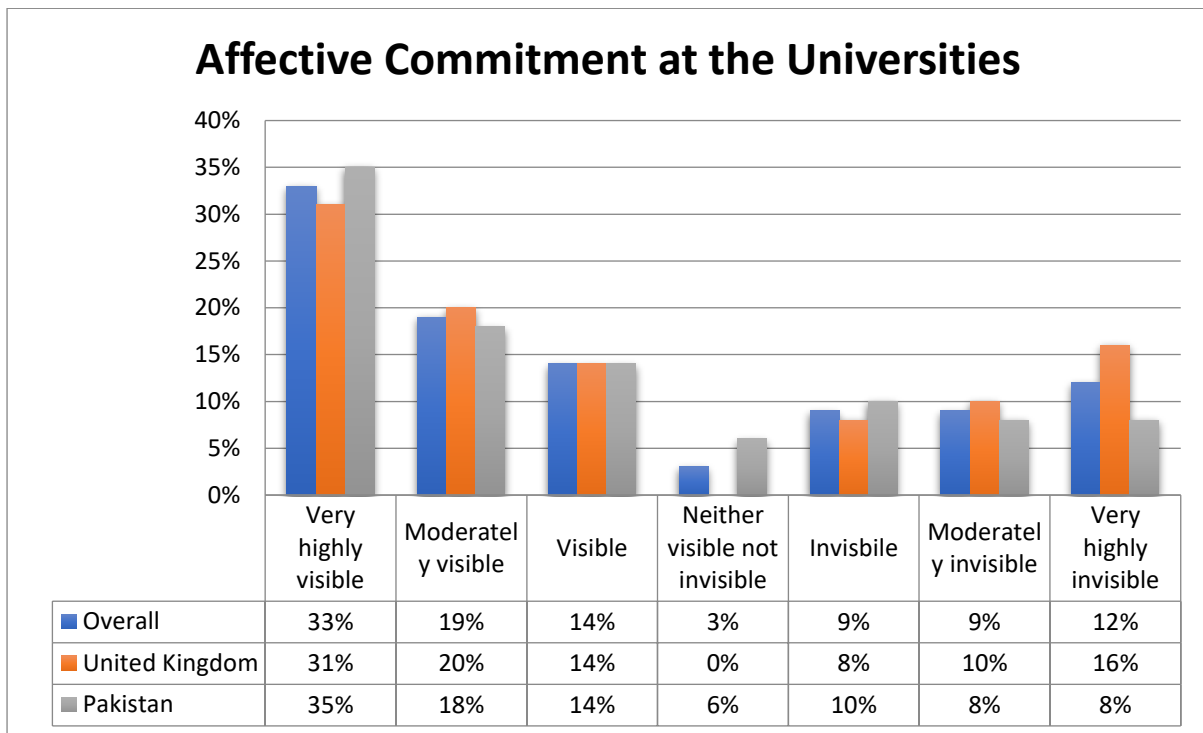


Figure 5. 26: Affective commitment at Universities.

Pakistani (teaching staff) respondent 1: *“My biggest concern. I feel unrest if there is any such issues”* (See Appendix A)

UK (teaching staff) respondent 1: *“Things are never casting in stone. If there is new development, we normally face it and see how to face it. And find way around it. Do not expect workplace remaining stable. Change will come and you have to adopt it”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“No second thought. Its priority and I will do all to resolve it”* (See Appendix A)

UK (teaching staff) respondent 2: *“Things can’t be perfect. I convince my mind that you will come across. It will make me better. If challenge is there why not?”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“My own problem. I will do anything to solve it”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“It depends on what it is. We are all here for some work so if it’s related to my area I will do it”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Extra load. I won’t say I will be happy to do it but not unhappy if asked to do it”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“I try to be positive and work out a way”* (See Appendix A)

Pakistani male: *“My most important task. I will ensure I do it in best possible manner”* (See Appendix A)

UK male: *“I will solve it. I like such challenges which forces me to do more”* (See Appendix A)

Pakistani female: *“I feel very annoyed. If any additional problems are imposed on me I just want to stick to my assigned template”* (See Appendix A)

UK female: *“If it’s in my department and if it touches me I will do it. I will accept it as challenge then”* (See Appendix A)

Table 5. 62: Affective commitment categorization in percentages

	Affective Commitment
United Kingdom	65%
Pakistan	67%
Teaching	69%
Administrative	65%
Males	79%
Females	52%

One of the three most important reported antecedents of organisational commitment is “*affective commitment*”. In the present study, the visibility of affective commitment within the universities of the UK and Pakistan is highly evident. In other words, the affective commitment of university employees could be seen in both economies. In general, employees showed emotional attachment to their respective institutions. Hence, this is a new development, as previously there was no conclusive evidence from a comparative perspective. Nevertheless, an in-depth analysis revealed that it is higher in Pakistan in contrast to the UK (67% against 65%). Thus, this study supports Haque and Aston (2016), while it differs with work of Haque *et al.*, (2018) in terms of AC in contrasting economies. Overall, teaching staff reported higher affective commitment compared to non-teaching staff (69% against 65%). Interestingly, overall, males have higher affective commitment than their counterparts (79% against 52%). Hence, this study differs from Haque *et al.*, (2016), which found that females, have higher affective commitment than males. However, our findings support the earlier work of Haque and Yamoah (2014), Tan and Lau (2012) and Mathieu and Zajac (1990), since the qualitative findings show that AC is higher among males; the qualitative findings confirming the quantitative findings.

Table 5. 63: Affective commitment comparison

	Pakistan	United Kingdom
Teaching	68%	71%
Administrative	67%	60%
Males	86%	71%
Females	47%	60%

Considering the contrasting economies, in Pakistan, affective commitment is almost equally evident in both teaching and non-teaching staff (68% against 67%) but it is higher in males in contrast to females (86% against 47%). On the other hand, in the UK teaching staff have higher affective commitment in contrast to non-teaching staff (71% against 60%). Since, as evident it is higher in teaching staff in contrast to non-teaching staff and, therefore, the qualitative and

quantitative findings are aligned. Similar to Pakistan, the males in the UK reported higher AC in contrast to females (71% against 60%). This is a significant development. Interestingly, AC was examined previously in different sectors, such as the IT Sector (Haque and Yamoah, 2014; Haque and Aston, 2016; Haque *et al.*, 2016) and Cargo Logistics (Haque *et al.*, 2018), while the present findings are from the education sector. However, overall, when considering organisational commitment, the findings support Chaudhry (2012), and Jackson and Rothman (2006) in that organisational commitment is higher in the education sector. Another important development is that the detailed analysis revealed that in earlier research, the majority of the respondents were from the young age brackets (20s to early 30s), with relatively low experience, while in this study, the majority of the respondents have more experience.

5.3.8 Visibility of Normative Commitment among others at the Universities

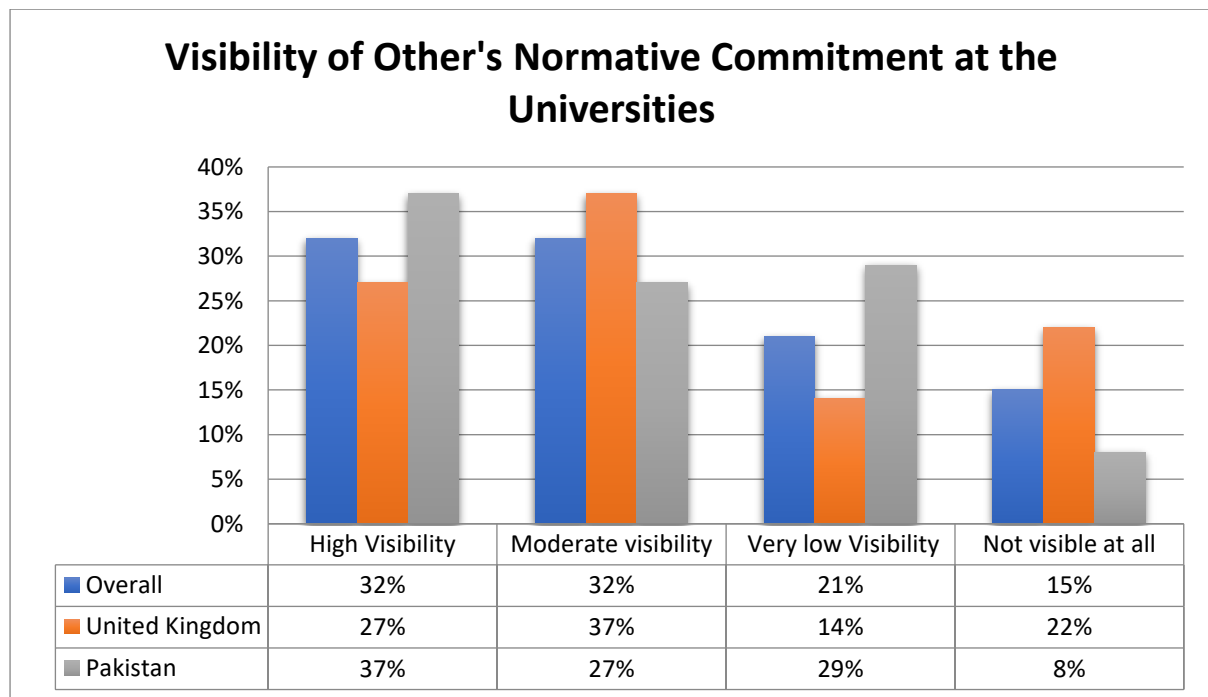


Figure 5. 27: Other employees’ visible normative commitment at Universities.

Pakistani (teaching staff) respondent 1: *“Being loyal and true to yourself. Yes, to some level. To some extent, I suppose”* (See Appendix A)

UK (teaching staff) respondent 1: *“Yes, it is very important to have loyalty to subject not to institution. Yes, I have seen it inside and its medium visibility”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“Important but depends on how are treated. Not much inside. Very low”* (See Appendix A)

UK (teaching staff) respondent 2: *“Very important. If you think it’s not my job, it’s bad attitude. I see it inside here. 60% are loyal”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“Job loyalty is like a person remaining loyal to given tasks. Sometimes... very low, 30%”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Yes, definitely important. Yes, people enjoy here, stay late. It shows loyalty is high”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“Very important. Yes. Highly visible”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“I think loyalty is earned. It’s not right to expect from employees or any department. Organizations have to earn it by caring about their people. Yes, a lot of people have been working since very long. I would say it’s very visible”* (See Appendix A)

Pakistani male: *“Indeed important. I can see it. 90% are loyal”* (See Appendix A)

UK male: *“It’s very specific. Some are more loyal in some industries. You have to be less loyal in some industries. It’s give and take. Yes, I can see here. People are loyal very much”* (See Appendix A)

Pakistani female: *“Very very important. Yes, most are loyal. See I have been here since 15 years. Most are still here. I will say very visible”* (See Appendix A)

UK female: *“Very important. Both ways shall work. People should be loyal and organisation should also look after them. Quite highly visible, 60 to 80%”* (See Appendix A)

Table 5. 64: Normative commitment categorization in percentages

	Normative Commitment
United Kingdom	78%
Pakistan	92%
Teaching	82%
Administrative	88%
Males	84%
Females	86%

The second dimension of organisational commitment is also evident in our findings. The majority of respondents confirmed visibility of “*normative commitment*” among other employees (85%). Interestingly, the absence of NC among other employees is highly reported in the UK in contrast to Pakistan (22% against 8%), reflecting that employees in the emerging economy view it more among others at the universities rather than a developed economy. Again, the qualitative findings support the quantitative findings in that visibility is higher in the emerging economy. Since the employees from the emerging economy reported higher NC of other employees, this differs from Haque and Aston (2016). Furthermore, overall the visibility of NC is highly reported about non-teaching staff in contrast to teaching staff (88% against 82%). Interestingly, the visibility through quantitative revealed higher among teaching staff but a detailed analysis confirmed that non-teaching staff report higher NC in contrast to teaching staff. Moreover, females, in contrast to males, have been reported to have higher NC (86% against 84%). Hence, the qualitative findings are aligned with the quantitative findings, as the NC is highly visible among females in contrast to males. In other words, visibility and the demonstration of the normative commitment is higher among females, as they feel that fulfilling the assigned tasks is a moral obligation. Hence, this study supports Haque and Yamoah (2014), while it contradicts Haque and Aston (2016) in terms of gender demonstrating normative commitment.

Table 5. 65: Normative commitment comparison

	Pakistan	United Kingdom
Teaching	96%	88%
Administrative	83%	67%
Males	87%	75%
Females	96%	80%

In Pakistan, total NC is highly evident among teaching staff in contrast to non-teaching staff (96% against 83%). However, a further, in-depth analysis revealed that NC is more visible in non-teaching staff, while lower visibility is mostly evident in teaching staff. Hence, regarding the split (higher-moderate-lower visibility) aspect non-teaching staff have higher NC than teaching staff. Nevertheless, overall visibility is present in both teaching and non-teaching staff. Moreover, the females have higher total NC in contrast to males (96% against 87%). On the other hand, in the UK, total NC is higher in the non-teaching staff in contrast to teaching staff (88% against 67%). Additionally, total NC visibility is higher in females in contrast to males (80% against 75%). Hence, there is not much variation in the contrasting economies regarding gender and faculty. This is a new development. Interestingly, in Haque and Yamoah (2014) even though the majority of employees were young with little experience, and here the majority of respondents were experienced, the present findings are consistent with the earlier work. Thus, NC in terms of gender are similar in the contrasting sectors with distinguish job attributes including experience, age, field related skills.

5.3.9 Continuance Commitment of employees at the Universities

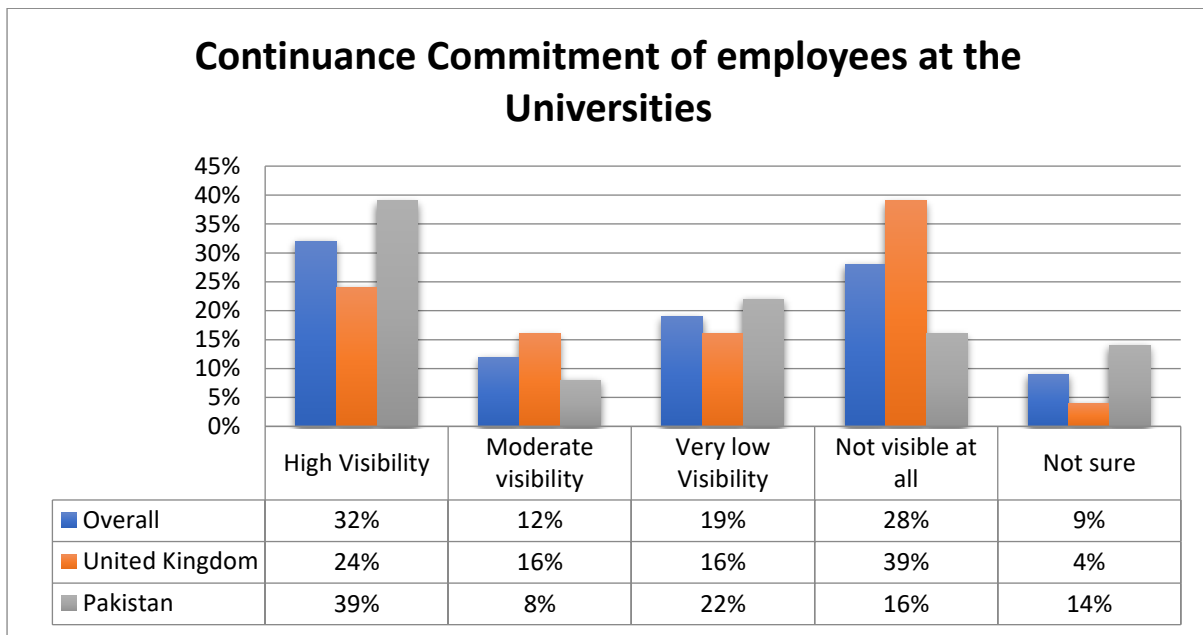


Figure 5. 28: Continuance commitment of employees at Universities.

Pakistani (teaching staff) respondent 1: *“Depends on how good is post. Recently a colleague got offer of Vice Chancellor from private university. Option was good. Something like that if comes I will also try”* (See Appendix A)

UK (teaching staff) respondent 1: *“See it all depends. I might go and I might stay. It all depends on offers”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“I will not go. It’s a government job”* (See Appendix A)

UK (teaching staff) respondent 2: *“Depends on opportunity. I like to move. Politics in organisation cause all such pressure. I want to go”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“No, I am fine. Long career here and doing well”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“I would be happy to go. If it’s good for my career I will go”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“No, I am happy here. This university has given me everything I desired for. I am satisfied here”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“At the moment I am happy here. Couldn't be much better”* (See Appendix A)

Pakistani male: *“I am somewhat happy for time being here”* (See Appendix A)

UK male: *“I will be more than happy to go. I am bored here”* (See Appendix A)

Pakistani female: *“A little disappointed to leave because its long time I worked here but it will take time to overcome it”* (See Appendix A)

UK female: *“It depends on the type of organisation. What are the opportunities? At the moment, where I am I feel I am fine here”* (See Appendix A)

Table 5. 66: Continuance commitment categorization in percentages

	Continuance Commitment
United Kingdom	56%
Pakistan	69%
Teaching	73%
Administrative	51%
Males	58%
Females	67%

Overall “continuance commitment” is visible among the majority of public university personnel (63% against 28%). However, the comparative analysis revealed that in Pakistan, continuance commitment is higher in contrast to the UK (69% against 56%). Hence, this study opposes Haque and Aston (2016) in terms of contrasting economies. However, the earlier work

was from the IT sector, while the present findings are from the education sector. In addition, the type of sectors is also different as these findings are from the public sector, whereas earlier findings were from the private sector. Moreover, CC is higher among teaching staff in contrast to non-teaching staff (73% against 51%). This is a new development, as there is no conclusive evidence regarding the CC of teaching and non-teaching staff from the literature at hand. Furthermore, females, in contrast to their counterparts, scored higher (67% against 58%). This study, therefore, supports Haque and Yamoah (2016) and Haque and Aston (2016), as earlier studies confirmed a higher of CC among females in contrast to males. The findings from the contrasting sectors still showed similar findings in this aspect, which means that, largely, females have a higher level of CC than their male counterparts in the organisational settings, irrespective of the types and nature of the sector. Hence, in all three dimensions, the qualitative findings support the quantitative findings, as visibility and actual demonstration are reported by Pakistan rather than by the UK (an emerging economy compared to a developed economy), teaching rather than non-teaching (contrasting faculties) and females rather than the males (contrasting gender). Interestingly, the present findings partially support Haque and Aston (2016) with regard to the gender aspect but, at the same time, contradict it in terms of types of economies, because their work revealed higher AC, NC and CC in the UK (developed economy) in contrast to Pakistan (emerging economy), whereas the present findings found the opposite. In other words, all three dimensions of the OC are highly reported by Pakistan in contrast to the UK.

Table 5. 67: Continuance commitment comparison

	Pakistan	United Kingdom
Teaching	64%	84%
Administrative	71%	32%
Males	60%	58%
Females	79%	64%

Moreover, the phenomenon is further explored and results show that, within Pakistan, non-teaching staff, in contrast to teaching staff, have higher continuance commitment (71% against 64%), whereas females report higher CC than males (79% against 60%). On the other hand,

within the UK, teaching staff report higher CC than the non-teaching staff (84% against 32%). Interestingly, 64% of the non-teaching staff have ‘no visibility at all’, reflecting the absence of CC to a large extent. males in contrast to females have a higher absence of CC (42% against 36%). This indicates that females have a higher CC than males at public universities in the UK and Pakistan. Hence, the present findings support Haque and Yamoah (2014), Haque and Aston (2016), and Haque *et al.*, (2016).

Interestingly, the funnel approach revealed that AC, NC and CC are higher among university personnel who have a higher level of experience, irrespective of their gender and faculty, in the contrasting economies.

5.3.10 Causes of stress at the Universities

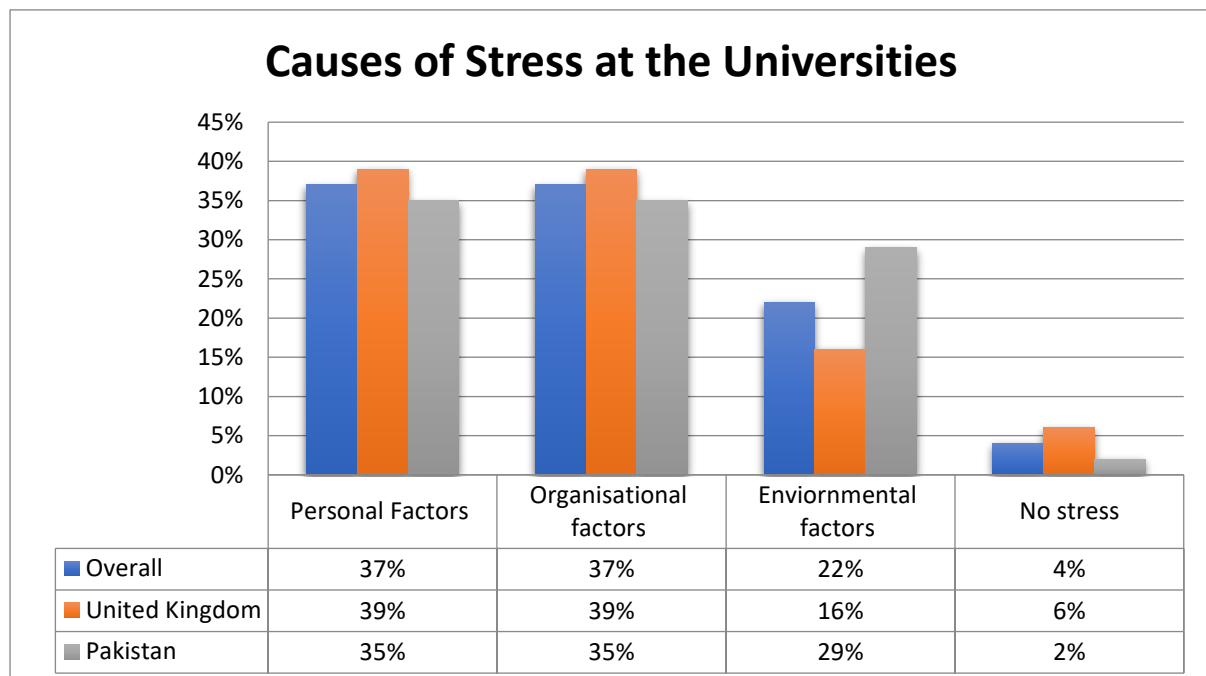


Figure 5. 29: Causes of stress at the Universities.

Pakistani (teaching staff) respondent 1: “*Environmental factors like any mishap, strike, etc*”
(See Appendix A)

UK (teaching staff) respondent 1: “*I think the political climate inside this organization. Environmental factors too but t I see too much politics insider this university lobbies*” (See Appendix A)

Pakistani (teaching staff) respondent 2: “Organisational factors because personal are only temporary” (See Appendix A)

UK (teaching staff) respondent 2: “Organisational factors” (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: “Political uncertainty is a major issue” (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: “Organisational factors. Workload” (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: “Organisational factors” (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: “Organisational politics” (See Appendix A)

Pakistani male: “Organisational factors” (See Appendix A)

UK male: “Organisational factors” (See Appendix A)

Pakistani female: “Family issues cause me stress. Personal factors” (See Appendix A)

UK female: “Personal life. My family. I can’t give them time” (See Appendix A)

Overall, all three types of stressors, namely: personal, organisational and environmental factors are evidenced. Nevertheless, personal and organisational factors are equally high stressors affecting the universities’ personnel (37%), followed by environmental factors (22%). However, the comparative analysis revealed that both personal and organisational factors are higher in the UK in contrast to Pakistan (39% against 35%; and 39% against 35%). However, environmental factors are higher in Pakistan than in the UK (29% against 16%). Interestingly, overall, teaching staff considered organisational factors as being higher than personal and environmental factors (41% > 37% > 18%). On the other hand, non-teaching staff attributed personal factors as the highest, followed by organisational and environmental factors (37% >

33% > 27%). Overall, considering gender, males found organisational factors higher in contrast to environmental and personal factors (53% against 35% and 8%), whereas females have accredited personal factors as being higher than organisational and environmental factors (65% against 20% and 10%). Thus, it is confirmed that personal factors are more common stressors for females, while organisational factors cause higher stress in males. Therefore, the present findings are consistent with Haque and Aston (2016), Haque *et al.*, (2016), and Haque *et al.*, (2018) because the same variations are confirmed in this study. Additionally, the qualitative findings support the quantitative results evidenced above. Thus, the numeric expression is further confirmed by in-depth, qualitative exploration.

Interestingly, the detailed analysis found that organisational politics is a common stressor at UK universities. It has been identified as a frequent contributor towards stress. This is a new development from the present study. Furthermore, the funnel approach revealed that within personal factors, females in Pakistan have identified family and financial problems as the major stressors, whereas in the UK, personality clashes and family issues cause stress. On the other hand, task demands (organisational factors) cause stress to males. Hence, Stranks (2005) is largely confirmed, while Haque and Aston (2016) is supported in that, within the types of stressors, the attributes vary for females in the contrasting economies.

5.3.11 Consequences of stress at the Universities

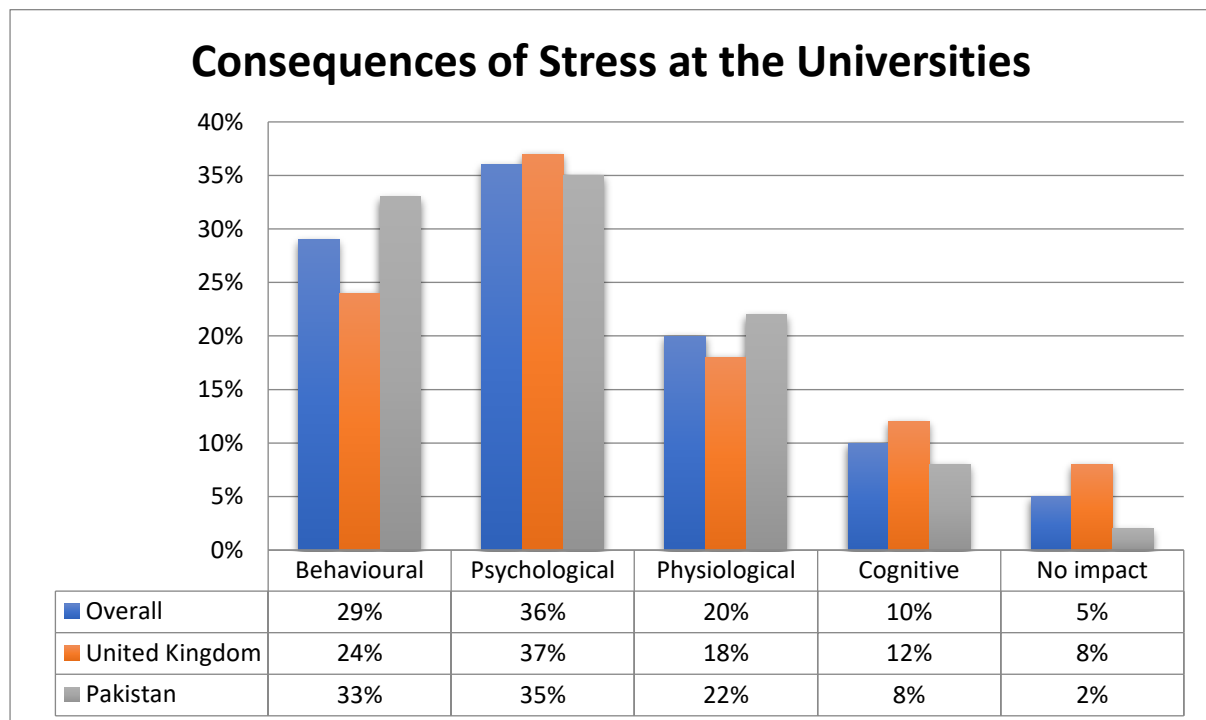


Figure 5. 30: Consequences of stress at the Universities.

Pakistani (teaching staff) respondent 1: *“Behavioural issues do occur due to stress”* (See Appendix A)

UK (teaching staff) respondent 1: *“All of these affects but psychological stays longer”* (See Appendix A)

Pakistani (teaching staff) respondent 2: *“Physiological”* (See Appendix A)

UK (teaching staff) respondent 2: *“If stress I eat more. Behavioural. I had headache too, my health deteriorates but its more behavioural deficiency”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 1: *“I feel depress. My mood swings”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 1: *“Physical pain. I sleep to get better. The key is rest. I make sure I have rest at weekend and go with life”* (See Appendix A)

Pakistani (non-teaching - administrative staff) respondent 2: *“I do have aching and pain. Even sometimes I feel like my heartrate has rapidly increased. Heart burning and chest pain starts too then I go to doctor. It’s due to uncertain environment and long travel distance”* (See Appendix A)

UK (non-teaching - administrative staff) respondent 2: *“Emotionally affected”* (See Appendix A)

Pakistani male: *“Usually behavioural things happen due to it but that’s for time being”* (See Appendix A)

UK male: *“Psychological. I can be more closed and angry but nothing physical”* (See Appendix A)

Pakistani female: *“Physical most of the times”* (See Appendix A)

UK female: “*Agitation, anxiety. More emotional things*” (See Appendix A)

Overall, the results showed that “*psychological symptoms*” are the highest reported symptoms among all the consequences of stress (36%), followed by behavioural (29%), physiological (20%), and cognitive symptoms (10%), whereas only 5% stated that there was ‘*no impact of stress*’. In this study, psychological symptoms are considered as emotional symptoms by separating them from cognitive symptoms. The comparative analysis revealed that psychological (emotional) and cognitive symptoms are reported higher in the UK than Pakistan (37% against 35%; and 12% against 8%). However, behavioural and physiological symptoms are reported higher in Pakistan than in the UK (33% against 24%; and 22% against 18%). Thus, this study contradicts Haque *et al.*, (2016) and Haque *et al.*, (2018), as the consequences of stress evidently vary in contrasting types of economies. In terms of faculty, overall, the teaching and non-teaching staff reported higher psychological symptoms but teaching staff scored higher (39% against 33%), followed by scoring equally in behavioural symptoms (29%), whereas non-teaching staff reported higher physiological symptoms in contrast to teaching staff (27% against 14%). Although, there is no conclusive evidence from the literature that directly explains the consequences for the contrasting faculties, Haque *et al.*, (2018) is the closest, in this regard, by considering non-teaching as an operational layer of management.

However, the study is partially rejected, as the consequences clearly vary for the employees working in the contrasting economies. In terms of gender, the consequences vary for males and females. The results showed that females reported a high level of psychological symptoms (43%), followed by physiological (18%), behavioural (16%) and cognitive symptoms (14%), while 8% stated no impact. On the other hand, male personnel reported a high level of behavioural symptoms (41%), followed by physiological (22%), psychological (22%) and cognitive symptoms (6%); finally, only 2% stated no impact. Thus, this reflects a variation in the types of stressors within contrasting genders. Hence, this study opposes Haque *et al.*, (2018) by confirming variations in the stressors within the contrasting genders. Interestingly, Haque *et al.*, (2018) was conducted in the IT sector, while the present findings are from the education sector. This, therefore, is a new development. Nevertheless, the qualitative findings support the earlier quantitative findings.

The funnel approach revealed that higher behavioural and physiological symptoms are reported by personnel in the higher age bracket (late 40s and above), especially males, whereas psychological and cognitive symptoms are higher among employees within the early 30s to mid-40s age bracket. stress and anxiety are evident, as a negative outcome from job disliked features. Thus, this study supports Williams, Thomas, and Smith (2017) in that the DRIVE model is effective in determining a negative outcome. It is evident, in this study, that an imbalance in demands and resources create stress and anxiety. Moreover, the funnel approach revealed that overall acute (hyper-stress) is more common among females, while chronic (acute) stress is higher among males. Thus, this study supports Stranks (2005) in identifying that different types of stress exist in the professional workplace. Considering the various aspects, it is evident that despite stress, the level of organisational commitment is above par in both countries and, therefore, this study supports Jackson and Rothman (2006), Chaudhry (2012), and Mark and Smith (2018), while it contradicts Danish *et al.*, (2015), Khan *et al.*, (2015), and Khatibi *et al.*, (2009). Nevertheless, it is evident that a few respondents in both the UK and Pakistan hinted at “situational commitment”, especially in the UK. There is a suggestion that because of BREXIT, changing policies have made the majority of the workforce reconsider their priorities and commitment to universities. In Pakistan, better opportunities for attaining higher administrative positions in the private sector have driven personnel to leave. Thus, this reflects that, to a certain extent, the organisational commitment of public universities’ personnel depends on the situation. Hence, this study supports Haque and Yamoah (2014) that altering situations have some effect on organisational commitment.

5.4 Overall findings in the light of Grid-Group Cultural theory

Grid-Group Cultural (GGC) Theory has made an important contribution to understanding, categorising and explaining cultures in a dynamic manner. The key elements of the G-GCT involve social relationships and cultural ‘biases’ as to whether or not we should be supportive to each other and whether or not we are or should be bound by ‘social regulation’.

G-GCT could play an important role in the aspect of cross-cultural management as far as the addressing of the issues related diversity is concerned. The prior literature, though not informed by G-GCT suggests that mutual understanding of differences is to be encouraged.

In our experience of living in both cultures, a massive gap exists between the United Kingdom and Pakistan which are recognisable in G-GCT terms, to which mixed methods could also be applied.

By comparison, ‘individualism’ is visible among the UK university personnel while ‘collectivism’ is more apparent among Pakistan’s university personnel. Since, the use of social support is often reported by Pakistani university personnel, which indicates that there is strong bond between people while many interpersonal differences (ie high ‘social solidarity’). On the other hand, UK university personnel often reported weak bonds between people and significant similarities between people. Considering gender, overall males could be categorized as ‘fatalist’ in their feelings, reasoning and actions, perhaps because they experience weaker social bonds *and* feel more differentiated individually. On the other hand, our findings support the tentative claim that females could be categorized as ‘egalitarianism’ for their ability to form strong bond with others while picturing themselves as sharing similarities with other women.

Table 5. 68: Occupational class in contrasting economies

	Gender	Occupational Class	Features
United Kingdom	Male	Academics	Members enjoying competitive game playing
		Administrator	Worried persons in an insecure labour market trying to survive another month in temporary hourly paid jobs
	Female	Academics	Game-players out to win
		Administrator	Devotees pursuing their vocation or calling
Pakistan	Male	Academics	Members of a collective movement aiming to change the world for the benefit of everybody, such as education for all
		Administrator	Surface actors playing a role while pretending that they care
	Female	Academics	Colleagues competing fiercely for rapid promotion
		Administrator	Workers doing a job

Analysis of the occupational classifications shows that overall male academics seem to view occupational stress as an additional motivator while non-academic males prefer routine jobs. It could also be argued that females also view challenging situations as a driver to strive while non-academic females report it as stressors because they viewed it as distasteful. It could be argued that it is the nature of the academic role to be a 'game changer' out to prove their individual worth (consistent with the Individualistic 'thought style') whereas non-academics work (fatalistically) to survive. In other words, academics approach is to thrive while non-academic is to survive. Therefore, it could be said that stress is perceived differently by the two distinctive groups and that there are institutionalized cultural difference which explain this. We can report that academics seem to have a higher risk appetite (and hence 'manage stress') while non-academics have low, Fatalistic tolerance and therefore, 'crumble to stress' or we suspect act privately to defend themselves from danger, for example by 'grinning and bearing it'.

Thread analysis:

Table 5. 69: Thread analysis to compare present findings with past research studies

Authors	Date	Employed theory	Findings	The researcher's findings based on reported responses	Brief explanation
Haque and Aston	(2016)	Workplace Stress Theory Social Comparison Theory	Personal strain, personal resources, and social support affect organisational commitment of IT workers at operational and managerial level.	Personal strain, personal resources, and social support affect organisational commitment of teaching and administrative staff in the education sector	This study confirms the general notion that the organisational commitment of employees in professional setting is affected by the personal strain, personal resources, and social support significantly. Both studies have employed similar theories and found same results in the different service sectors in the UK and Pakistan. However, Haque and Aston (2016) used simple correlation and t-test while this study used advanced statistical tool SEM to determine the total size effect of the variables affecting organisational commitment in contrasting economies.
Kumasey et al.	(2014)	Gender Social Comparison	Organisational vary commitment among varying gender and managerial status.	The results showed that all three types of organisational commitment, namely, affective, normative, and continuance	The present finding partially supports Kumasey et al. (2014) because both studies have common feature of confirming that stress and organisational commitment exist within the workplace. The earlier study used gender social comparison while this study used combination of workplace stress theory and social comparison theory. However, from partially recursive model, only the existence and varying type of

			<p>Males have higher organisational commitment whereas females have lower OC. Furthermore, occupational stress did not vary for contrasting gender. Similarly, managers and non-managers do not differ in terms of occupational stress and organisational commitment.</p>	<p>commitment differ at the public universities. Similarly, the type of stress differs for teaching and administrative staff.</p>	<p>organisational commitment is established but the linkage of these dimensions of organisational commitment in relation to different variations such as personal strain, personal resources, perceived stress, occupational therapist and social support, especially from the mediation perspective were not explored by earlier researcher. Thus, at present this test only offered partial confirmation about varying degree. Additionally, this study examined each dimension of organisational stress separately to investigate the linkage, which is the different approach. Moreover, previous study has used MANOVA test to determine results and it was conducted in the banking sector while present study is commenced in the education sector of contrasting economies by using AMOS SEM through partially recursive model. The present study has opted for multi-comparative approach rather than simple comparison between gender and management layer.</p>
Haque et al.	(2016)	Social Comparison Theory	<p>The role of occupational therapist has no significant while personal resources and personal strain significantly affect the affective, normative and continuance</p>	<p>The role of occupational therapist has no significant while personal resources and personal strain significantly affect the affective, normative and continuance</p>	<p>The present findings support to larger extent Haque et al. (2016) by confirming the role of occupational therapist having no significant while personal strain and personal resources have significant impact on the AC, NC, and CC by employing same theory of social comparison. However, the emphasis of earlier study has largely concentrated on contrasting gender in the developed and emerging economy while in this study, first attempt to find the total size effect and magnitude of the mediation caused by variables in question on the dimensions of organisational commitment. Moreover, the earlier study</p>

			commitment of IT sector employees in contrasting economies of the UK and Pakistan.	commitment of teaching and non-teaching (administrative staff in the UK and Pakistan's public universities.	considered simple correlation to investigate the linkage while this study takes a step further to examine the size effect, nature and strength of mediation, and multiple regression within one construct to have higher generalizability. Previous study took comparative approach by investigating contrasting gender in distinctive economies while this study included the faculty as third dimension. Earlier study was from the IT sector while this study is mainly focused on the higher education sector of contrasting economies.
Brannon and Feist	(1992)	Health Psychology	Personal Strain affect the professional commitment of workers but has a negative linkage with the well-being, health and behaviour	Personal strain affects the organisational (professional) commitment of employees.	Present study confirms Brannon and Feist (1992) despite viewing it from different perspective. Above mentioned researchers explored the relationship from the health psychology perspective while present study examined the organisational (professional commitment) from the social comparison theory. Similar results have been reported because both examined the professional workplace to examine the personal strain. Interestingly, both studies used different yet advanced statistical tools.
Sackey and Sanda	(2011)	The Person-Environment Fit Theory	Personal strain affects the managers and non-managers commitment	Personal strain affects the teaching and non-teaching employees of the universities.	Present findings partially confirm the notion that personal strain has a linkage with the commitment. However, earlier study considered managers and non-managers from the emerging economy using P-E Fit theory while present study used comparative approach to examine the same phenomenon in advanced and emerging economy.

			through social support		
Gok, Akgunduz, and Alkan	(2017)	Social Exchange Theory	Continuance commitment of 5-star private hotel employees is significantly affected by perceived job stress	Continuance commitment of teaching and administrative university personnel is not significantly affected by perceived job stress	Present findings differ with the earlier work of Gok et al. (2017) perhaps because of the different sectors and differing techniques. Earlier researchers commenced study in the hotel industry by employing social exchange theory while present study is carried out in the education sector through comparative approach and social comparison theory along with the workplace stress theory. Despite both being service industries earlier one is private and mainly deals with tourism services whereas present study is carried in the public sector providing educational services. Thus, the nature of service provision differs and therefore there is a difference in type of stress and continuance commitment. Additionally, the public sector often has higher continuance commitment due to higher job security in contrast to private sector where there is lower job security.
van Zyl et al.	(2013)	Work-related Stress Consequences	Affective commitment of private hospital employees is significantly affected by	Affective commitment of teaching and administrative university personnel is significantly	This study confirms van Zyl et al. (2013) that affective commitment is significantly affected by perceived job stress. However, although, this research being carried out in public education sector using workplace stress and social comparison theory while earlier study was carried out in the private hospitals using work-related stress consequences. Moreover, the earlier researcher used "Experience of Work and Life Circumstances" and COPE questionnaire while present study

			perceived job stress	affected by perceived job stress	adopted Meyer and Allen (1997) and Stranks (2005) scale to measure the relationship. Hence, both; scales and sectors differ but similar findings have been yielded.
Zehra et al.	(2017)	Social Comparison Theory Three Component Model (TCM)	Normative commitment significantly affected by perceived job stress	Normative commitment significantly affected by perceived job stress	Present findings support work of Zehra et al. (2017). Present study also used social comparison theory to measure the impact of perceived job stress on the normative commitment. The comparative aspect has been used. Interestingly, both studies have been carried out in the public sector however, one is in the hospital while the other is from the universities. Earlier researchers used correlation and regression technique while advanced statistical test AMOS SEM is used in this research.
House	(1981)	Supportive Social Network	Relation among social support, stress, and health	Informal support at workplace reduce stress	The earlier work of House (1981) has been confirmed that there is a linkage of social support with the stress as the informal support is effective in dealing with various types of stressors. Earlier researcher opted for exploratory method by using the examples from different professional workplaces to understand the impact on the health whereas this study used some of the consequences of stress affecting the health and wellbeing of the employees in the education sector. This study is more causal-effect and directed towards specific setting, yet results have been to larger extent similar through employing different theoretical stance.

Schwarzer and Leppin	(1991)	Social Support and Health	In public organisations, the wellbeing and health of employees tends to improve with the presence of social support inside organisations, mainly when employees are performing repetitive tasks on a daily basis	In education (public) sector, the wellbeing, health, and commitment of employees improve in relation to daily routine tasks due to social support at workplace.	The present finding partially supported the argument of Schwarzer and Leppin (1991) as both studies confirmed evidence from the public organisations. However, the earlier researchers used 80 empirical studies as part of meta-analysis whereas this study is causal-effective using mixed methods to gather data from primary sources. Moreover, the earlier authors used social support and health attributes while in this study different workplace related stress theories are used to explain the phenomenon from comparative lens. There are more sophisticated and statistically advanced tools used in present study to establish the relationship between social support, wellbeing, and commitment.
Hurlbert	(1991)	Social Comparison Theory	Comparison between dominant and passive groups revealed that dominant group have higher desire, satisfaction, lower stress, longevity, and healthy lifestyle.	Comparison revealed that a use of social support is effective in reducing the stress and increasing commitment of the employees in all sub-groups such as, gender, economy, and faculties.	Present findings partially support earlier researcher because the comparative groups such as (male vs. females, teaching vs. administrative, and developed vs. emerging economy) have confirmed that social support has a linkage with the stress reduction and improved commitment. However, Hurlbert (1991) found one group being dominant while other passive, whereas here the support is effective for both groups, yet females use it more constructively than the males. The earlier researcher commenced research by forming clinical and non-clinical groups among females whereas here the division was mainly between contrasting gender. There is no difference found among females of Pakistan and the UK responding

					differently. Hulbert has used regression while present study considered AMOS as advanced tool to measure the total size effect of variables of interest but both studies explored social comparison theory.
Mark and Smith	(2008)	Demand Resource Individual Effect (DRIVE) Theory	The combination of different stress model to measure the stress at workplace.	Practically tested DRIVE model in the complex environment to measure the impact of stress on commitment	The present study confirmed that some of the attributes of job are effectively linked with the stressors. Since, Mark and Smith (2008) have only proposed the model while there was no conclusive evidence regarding the model's effectiveness in measuring the relationship. The major difference is the theoretical proposal of earlier authors and the practical implication of the same model to measure how demands, resources, and individual effects are interlinked at workplace using comparative approach. Moreover, there is extension given to the model by linking with the organisational commitment.
Haque and Yamoah	(2014)	Gender Differences	There is partial mediation caused by support programme, personal strain, and resources in the organisational commitment	Personal strain and social support cause partial mediation among different types of organisational commitment among teaching and administrative staff	Haque and Yamoah (2014) is supported by present findings to larger extent by confirming the mediation of different variables of interest within the organisational commitment. Interestingly, earlier authors used gender differences while current study opted for comparative approach by using social comparison and workplace related stress theory. However, the earlier study was carried out in the private IT sector whereas present study is commenced in the public university sector of the UK and Pakistan. Earlier researcher used qualitative as main method while later using Chi-square to

			among contrasting gender.	of contrasting economies.	measure the antecedents of organisational commitment within contrasting gender. On the other hand, this study has mixed methods where higher emphasis is on the quantitative methods, later followed by qualitative interviews. Higher advanced statistical tools are employed to find the mediation effect so that the total size effect is known, which was previously not conclusive.
Haque and Oino	(2019)	Workplace Stress Theory Social Comparison Theory	The social support has a significant impact on the AC, NC, and CC of the employees working at managerial and operational level of the cargo logistic firms in Canada and Pakistan.	The social support has a significant impact on the AC, NC, and CC of the male and females working at teaching and administrative positions of the public universities in the UK and Pakistan.	Haque and Oino (2019) study employed qualitative methods while this study used mixed methods by first employing quantitative methods to have advanced statistical tools to numerically express the relationship and later explore the phenomenon through qualitative methods. Nevertheless, both studies have employed same theory and therefore yield similar results. The earlier study has used open ended interviews while this study used matrix based semi structured survey and open-ended interviews. Earlier study was carried in the Cargo logistic organisations of Canada and Pakistan while focusing on managerial and non-managerial level employees. On the other hand, this study has reported findings from the public universities in the UK and Pakistan by exploring responses of contrasting gender working at the teaching and administrative positions. However, both studies confirmed that social support is significantly affecting the antecedents of organisational commitment.

Haque et al.	(2018)	Workplace Stress Theory Social Comparison Theory	Perceived job stress and social support have linkage with AC, NC, and CC of cargo logistic firms' employees working at managerial and operational level of Cargo Logistic firms in Canada and Pakistan.	Perceived job stress has no significant linkage with AC, Nc, and CC while social support has linkage with antecedents of OC among teaching and administrative staff of the public universities of the UK and Pakistan.	Present findings partially support and differ with the earlier work of Haque et al. (2018) despite both studies have employed similar theory. Perceived job stress is non-significant linkage with dimensions of OC whereas social support has significant impact on the antecedents of OC. Interestingly, Haque et al. (2018) used hypthetico-inductive-deductive model whereas this study employed hypthetico-deductive-inductive model. Haque et al. (2018) largely relied on interview findings whereas this study has used survey and follow up interviews to find the relationship between variables of interest. The nature of the industry perhaps s the reason for variation in the relationship between perceived job stress and OC as one has highly dynamic environment whereas other has steady environment. Present findings used highly advanced statistical tool SEM to determine variables of interest in comparison to Haque et al. (2018) study that used simple thematic analysis.
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Chi-Square Test:

Table 5. 70: Thread analysis Chi-square findings with past research studies

Authors	Year	Employed theory	Findings	The researcher's findings	Brief Explanation
Haque et al.	(2016)	Social Comparison Theory	Organisational factors cause higher stress among IT	Organisational factors cause higher stress in	Despite two studies commenced in different sectors of the UK and Pakistan, the causes of stress are alike for contrasting gender. This perhaps is due to the use of Social

		<p>employees in the UK than Pakistan while personal factors and environmental factors cause higher stress in Pakistan than the UK. Considering gender, males are often affected by organisational stressors while females are frequently affected by personal factors in contrasting economies. Moreover, the consequences of stress do not vary for employees working in different country's IT sector.</p>	<p>the UK education sector while personal factors and environmental factors cause higher stress in Pakistan's education sector. Organisational stressors cause stress to males while personal stressors cause stress to females in the overall education sectors. On the other hand, physical, behavioural, and psychological consequences of stress are evident. Overall, organisational factors cause stress while emotional</p>	<p>Comparison Theory being employed in both comparative studies. Personal stressors namely, family problems, financial problems and personality clashes causes higher stress to females while organisational factors such as, role demand, task demand, organisation lifecycle, leadership etc cause more stress among males, irrespective of the type of economy, management layer, faculty, and type of industry. Interestingly, both studies have used quantitative methods with advanced statistical tools to measure the causes of stress. In fact, the present study partially adapted the scale of Haque et al. (2016) to measure the magnitude of stressors. However, considering the consequences of stress, the study differs with earlier authors because Haque et al. (2016) only treated consequences in a general form while this study considered ranking scale to measure the variation between different types of stressors affecting different type of employees working in different faculty of contrasting economies.</p>
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				symptoms are common in the education sector.	
Haque et al.	(2018)	Workplace Stress Theory Social Comparison Theory	Organisational factors cause higher stress in Canada's logistic businesses than Pakistan while personal factors and environmental factors cause higher stress in Pakistan than the Canada. Moreover, they found no difference in types of consequences of stress in Logistic sector.	Organisational factors cause higher stress in the UK than Pakistan's education sector while personal factors and environmental factors cause higher stress in Pakistan than the UK. All types of consequences of stress vary for employees working at different faculties in the UK and Pakistan, yet overall behavioural consequences are higher among all. However, teaching staff	In terms of contrasting economies, the present findings support the earlier work of Haque et al. (2018) as the developed economies workforce is more affected by organisational stressors while personal stressors are often affecting emerging economies' workforce. Since both theories have employed similar type of theories to investigate the causes of stress in different types of economies. Interestingly, the earlier study has been from the private logistic sector whereas the present data is from the public education sector. Moreover, the earlier study has employed qualitative thematic analysis to measure the types of stressors whereas this study used mixed methods by employing Chi-square test to measure the magnitude of types of stressors and later adopt the thematic analysis so that the greater sum is attained through mixed methods. On the other hand, the present findings differ with Haque et al. (2018) in terms of consequences, which could be largely attributed to the fact that earlier researchers considered consequences in general manner without classifying them in order to rank them in the degree. This study formed the ranking scale to measure and categorise different types of consequences based on Stranks (2005) work. The present study is more in depth by using mixed methods to have a greater sum rather than relying on specific method, which could be a reason to have more in-depth finding to attain classified and ranked responses.

				demonstrate often psychological whereas administrative staff exhibit behavioural and physical symptoms.	
Cicei	(2012)	Affect Theory	All types of stressors affect the organisational commitment of the public sector employees in similar manner. Stressors of all types are equally affecting workers in the public sector.	The present findings revealed that among all types of stressors, organisational factors cause more stress to workers in contrast to personal and environmental factors in the public sector. Therefore, organisational commitment varies in relation to stress.	Cicei (2012) used affect theory to examine the relationship between stress and organisational commitment. In the due process, it is found that all types of stressors affect the workers in a similar way within the public sector. On the other hand, present findings differ because the social comparison theory along with different workplace related stress theories employed revealed that organisational stressors are more predominantly affecting the workers in the public sector in contrast to other types of stressors. Cicei (2012) did not consider the managerial positions to distinguish the type of relationship between research variables while present study considered faculties as one aspect to measure the variation. Moreover, present study considered comparative approach, which is also the reason to have a differing finding. responsibility pressure, workload, role conflict and job vs. non-job conflicts were the main components to measure correlation while present study used proportional analysis and Chi-square test to measure the varying stressors. Hence, there is a different in scale used to measure the relationship between research variables.

Fairbrother and Warn	(2003)	Job-Specific Model of Stress	Workplace stress is alike for all types of naval officer trainees when they go under sea training. Specific work dimensions create stress to larger extent; however, the types of stressors are similar for all trainees.	The causes of stress differ for types of faculties in the education sector, as teaching staff are more affected by organisational stressors whereas administrative staff is more affected by personal and environmental stressors. The job features despite being similar, the stress differs for contrasting gender in distinctive economies.	The study differs with Fairbrother and Warn (2003) by confirming that all though the job features being similar, males and females working at teaching and administrative staff are affected by different types of stressors in the UK and Pakistan's public universities. Since, the both studies employed different theories, therefore, their findings also differ. The focus of earlier researchers was mainly focused on job-specific model of stress while here the comparative approach was considered. One could also argue that the reason for difference in two studies is because of the target audience and industry. As the Fairbrother and Warn (2003) focused on naval officer trainees for sea training while here the focus was on professional working in the education sector. The type of training of naval officer is different than the professionals working in the education sector because of their job attributes are different. Hence, this is also a likely reason behind contradicting the earlier researchers' work.
Stranks	(2005)	Workplace Stress Theory	All types of stressors affect the employees in the organisational settings. On the other hand, different types of consequences emerge.	All types of stressors are evident to be affecting the teaching and administrative employees in the UK and Pakistan's	The present findings support Stranks (2005) by confirming that all types of stressors and consequences of stress exist within the professional organisational setting. Since, the present study employed partially the theory of Stranks and developed a scale on his given argument, therefore, there is a higher similarity between the findings.

				public universities. Similarly, different types of consequences of stress are found among the male and female working at teaching and administrative staff in the UK and Pakistan.	
Mark and Smith	(2008)	Demand Resource Individual Effect (DRIVE) Theory	The combination of different stress model to measure the stress at workplace.	Practically tested DRIVE model in the complex environment to measure the impact of stress.	The present study practically implemented the model to measure the magnitude of the stress in complex business environment. The present study checked practical viability of the model and confirmed that causes and consequences of stress exist in the complex business environment. Since, this study employed DRIVE model, which was also previously employed in Haque and Oino (2019), Haque et al. (2016), and Haque et al. (2018). Those studies were used by adopting their questionnaire items, thus, there is similar approach to larger extent to test DRIVE model and as a result, attained similar findings.
Sackey and Sanda	(2011)	The Person-Environment Fit Theory	Both environment and person are connected and stress affect both managerial and non-	The causes and consequences of stress differ for people working at different positions, yet the	Both studies confirmed the existence of stress affecting people differently on different positions. However, Sackey and Sanda (2011) used Person-Environment Fit model to understand the stress phenomena working in the professional setting while social comparison theory in the present study also found similar findings. One of the

			managerial position employees.	person and environment are connected. Stress affects individuals differently.	reasons for finding the similar results could be attributed to the use of comparative approach because both studies considered comparative aspect to measure the stress at workplace.
Sackey and Sanda	(2008)	Demand Control Model	Social support has a role while psychological attributes related to job demand affects employees at workplace therefore, depression, anxiety, stress results from the workplace activities.	Different types of causes of stress affect employees working in the education sector of the UK and Pakistan differently and therefore consequences differ.	The earlier findings are partially supported through present findings, as the two studies have employed different theories to examine the workplace stress. Sackey and Sanda (2008) opted for Job demand control model to measure the psychological attributes affecting the workplace operations while those demand attributes are partially employed in this study through DRIVE model. Hence, there are similarity. However, the earlier study was carried out to investigate the stress, anxiety, and depression among female managers using both questionnaire and interviews while this study used mixed methods to examine male and female working at the teaching and administrative positions.

Table 5. 71: Thread analysis present findings with earlier work of G-GCT

Author	Theory	Author's findings	Personal findings	Difference
Thompson M. (2018)	Cultural theory	The aspect of dualism has been refuted by the author	Social relations are important for culture	Dualism cannot be refuted as far as cultural aspect is concerned
Coyle (2018)	Cultural theory of organisations	The understanding of risks and the responses of people towards various social issues	The issues of people are to be addressed as far as the cultural aspect is concerned	No major difference

The table above records the differences and similarities between selected key authors and our own findings. Gaps remain. Thompson is vehement in his opposition to the idea of dualism in terms of society and culture as far as the application of the Grid-Group Culture Theory is concerned (Berger, 2016). For him cultures are always work-in-progress and will demonstrate Fatalistic, Hierarchical, Egalitarian and Individualistic thinking in varying proportions over time. In otherwords, the UK and Pakistan are not fixed in their differences and actors within each country will show distinctly recognisable and similar forms of reasoning and action. ‘The Others’ is typically less different than we might assume. Recognition that a similar range of competing rationalities will exist in foreign countries would be a useful start provided by G-GCT. For example, when presented with an existential threat, Fatalist and Egalitarian responses make equally reasonable sense.

The different culturally available means of assessing risk amount to a repertoire worth knowing, and a re-analysis of the literature on ‘stress’ in terms of ‘risk’ would be a valuable undertaking.

As G-GCT specifies *four* culturally available rationalities, by enhancing self and mutual awareness of these competing, yet equally reasonable ways of thinking, it may be possible for organisations to foster and find four assessments and four solutions to every surprising difficulty and opportunity they face, improving ‘requisite variety’ especially for the most complex problems. It is not so much the elimination of cultural biases that is called for, as it is not possible to act reasonably without employing one or more ‘thought style’ to supply the reasoning. The differences and similarities indicated in the Table above may also be as a result of the different and specific contemporary scenarios affecting higher education systems in the countries in question, the different systems of Quality Assurance present in the countries (for example the NSS, REF and TEF in the UK. It is reasonable to expect differences in reasoning given that so much emphasis is placed presently on ‘student satisfaction’, ‘research excellence’ and teaching excellence’ defined using standardised metrics which no UK academic can ignore. In this way religious differences and the weight of history may not be as decisive as might be assumed. Although beyond the scope of this study differences in the governance of universities each country will present academics and administrators with different day-to-day imperatives which they might comply willingly (hierarchy), resist collectively (egalitarian reasoning), join in competition to be not just winners but ‘game changers’ or resign themselves to (fatalistically) in order to survive the changes which many of our interviewees and survey respondents variously complained of or relished.

We present no evidence to suggest that one country’s HE system is superior to another, though it will be for others to determine how well the UK and Pakistan meet their own (culturally contested) success criteria. In the meantime, we continue to sound warnings about the detrimental effects of stress will be having, not just in the minds of our respondents but also of the literature, noting where our work supports or refutes different authors specifically.

Because, at least according to G-GCT, theories are cultural artefacts, many and perhaps all of the similarities and differences between different authors’ theories originate in each author’s preferred thought style(s). Not every rationale is shared and each author will assess the causes and effects (risks) associated with stress differently. To hierarchical thinking, ‘role ambiguity’ is stressful, but to individualistic thinking, role clarity (strictly defined job descriptions) are provocative and wrong-minded. ‘Flexibility’ is then what is wanted and opportunities to out-compete one’s colleagues. Finally, these competing forms of reasoning will inhabit the minds of readers.

Since affective commitment is reportedly high in both economies, this study, contradicts especially Mitic *et al.*, (2016) in that

- power distance (ie hierarchy) is higher in the emerging economies and supposed to affect AC (affective commitment) *negatively*

- yet although Pakistan is believed to epitomise high power distance, our respondents found AC to be easily visible among employees

And,

- despite individualism being famously higher in the UK, in contrast to Pakistan (rated at 89 against 14 on the same scale), organisational commitment is reported *higher* by Pakistani respondents. Thus, our study contradicts Afaneh *et al.*, (2014), whose study did not explain any particular dimension, whereas in this study, AC, NC and CC are all self-reported by respondents at higher levels than in the 'individualistic' UK.

Among these intriguing anomalies, Pakistan is a country with high reported collectivism (ie high social solidarity in G-GCT terms) in which high AC is to be expected theoretically. Yet this finding contradicts Gelade *et al.*, (2006), while only partially supporting Ning (2006) who claims that organisational commitment is significantly affected by *both: high individualism and high collectivism*.

We also find that a collectivism does not reduce employees' job satisfaction, thus conflicting with Gelade *et al.*, (2008) and with Afaneh *et al.*, (2014) in their claim that higher masculinity positively affects organisational commitment. Note that Pakistan has been measured as a 'low masculinity culture', but we find that the level of *commitment* is *high*.

It is clear then, that there are puzzles yet to be solved and this study has pointed at where those puzzles lie. It has been shown that cross-cultural studies offer new insights that are missed or misread otherwise.

5.5 Summary

We find that the causes and consequences of stress vary for public university staff in terms of gender, faculty and types of economy. These variations are statistically significant and the qualitative findings also further confirm that organisational factors cause higher stress to males, whereas females are highly stressed by personal factors. Moreover, teaching staff thought that it was personal stressors causing stress while non-teaching staff attributed stress more 'objectively' to organisational and environmental factors and less so to themselves. Overall,

organisational stressors caused higher stress to the majority of public university personnel. Nevertheless, to a certain extent, all types of stressors are evident notwithstanding the contrasting economies.

We have found that the self-reported consequences of stress for males are usually behavioural and physiological, whereas psychological and cognitive consequences are reported by females in both Pakistan and the UK. Overall, reported psychological consequences are higher for teaching and non-teaching staff in both countries' HE sectors. Moreover, social support is evidently effectively used by the personnel in the emerging economy, more so than in the developed economy. Overall, both teaching and non-teaching staff seem to use social support effectively.

Male respondents report using social support more effectively, though less frequently. In addition, the experienced personnel report using it both more effectively but to deal with different stressors compared with new employees. Overall, moral support is reported at higher levels than emotional support. Furthermore, Pakistan scored higher in both types of support. In terms of the staff categories, teaching staff often receive higher emotional support, whereas higher moral support is reported to be received by non-teaching staff.

It is a subtle but important difference, we feel, that women report receiving higher emotional support, while males report receiving higher *moral support*. *Acute* stress is reported at higher levels by females, while *chronic* (ie. more-or-less permanent) stress is reported by male counterparts.

Though the representation of occupational therapists is higher in the UK, their reported effectiveness is non-significant in both countries. Moreover, the role of occupational therapist as reported to us, has no-significant impact on organisational commitment (AC, NC, and CC) of public university personnel in both countries. Neither did perceived job stress have a significant impact on CC.

Self-reported personal strain, personal resources and social support do have a significant impact on AC, NC, and CC. Interestingly, the total effect of all predictors is higher for AC, which is higher among males, while NC and CC are higher for females. Teaching staff report higher AC and CC, whereas NC is higher in non-teaching staff. In addition, AC and CC are higher in the emerging economy, while NC is higher in the developed economy. Nevertheless, there is evidence to suggest that organisational commitment does indeed tend to alter according to changing circumstances.

CHAPTER 6: OVERALL CONCLUSION, CONTRIBUTION AND IMPLICATIONS

6.1 Introduction

We turn now to our contribution, managerial implications, limitations and suggestions for future researchers. Here we restate each of our objectives against each principle contribution made here. We remain interested especially in sustaining human capital by improving organisational commitment and reducing the stress among public universities' personnel in the UK and Pakistan. For the sake of clarity objectives and findings are tabulated as follows:

Table 6. 1: Research questions and research outcomes

Research Questions	Research Outcome
<ul style="list-style-type: none"> How do the varying stressors: personal, organisational and environmental, affect the affective, normative and continuance commitment of teaching and administrative university staff in the UK and Pakistan? 	<p>Varying stressors affect teachers and administrators differently</p> <p>Organisational sources of stress are reported more frequently in the UK than Pakistan, and there is evidence that affective, normative and continuance commitment is higher in Pakistan, due, we suspect to different organisational regimes.</p> <p>Their organisations cause higher reported stress among men compared with women, while personal sources of stress are more likely to be reported by women (in either country).</p> <p>The relationship between different attributed sources of stress and differences in self reported affective- and continuance-commitment is interesting. These differing types of commitment are higher in men than in women.</p> <p>In terms of the staff categories studied, organisational stressors affect teaching staff more whereas personal and environmental features seem to feature more prominently among non-teaching staff.</p> <p>Affective- and continuance commitment is higher among teaching staff while administrative staff self-report higher normative commitment.</p>
<ul style="list-style-type: none"> How do the physical, behavioural, cognitive and emotional consequences concerning the distinctive antecedent of organisational commitment, vary 	<p>Both statistical and qualitative analysis confirm that, emotional (psychological) consequences are common among university personnel in the UK and Pakistan.</p> <p>Nevertheless, a break-down shows that emotional, physical and behavioural are the common reported consequences in Pakistan, cognitive consequences are higher in the UK.</p> <p>Women report emotional and cognitive symptoms whereas male respondents tend to report physical and behavioural symptoms,</p>

<p>between the teaching and administrative public university staff in the UK and Pakistan?</p>	<p>irrespective of the type of economies. Lastly, emotional consequences are more likely to be reported among teaching staff while physical symptoms tend to be reported by administrative staff in <i>both</i> the UK and Pakistan.</p> <p>The organisational commitment of the teaching and non-teaching personnel seems to be the result of the varying consequences of stress experienced. Stress is reported at higher rates among the young and less experienced university personnel, who often report emotional and cognitive symptoms.</p>
<ul style="list-style-type: none"> • Are social support programmes effective in sustaining human capital within public universities in the UK and Pakistan? 	<p>The visibility and effectiveness of formal ‘social support’ is higher in Pakistan than the UK. Our data indicates that it helps in sustaining human capital in both tutors and administrators who report higher organisational commitment towards their respective universities.</p> <p>Informal social support reduces stress, especially among mature workforces for whom it protects against different types of stressor. Women report using it more frequently than do men, but males reported it as being more effective for stress reduction.</p> <p>Teaching staff report its effectiveness more than do administrative staff.</p> <p>The evidence suggests that social support programmes are effective in providing emotional and moral support, enabling staffs to sustain higher self-reported levels of organisational commitment.</p> <p>Women commonly report receiving ‘emotional support’ while males reported attaining ‘moral support’ through such programmes. Both formal and informal support emerge as significantly strengthening organisational commitment.</p>
<ul style="list-style-type: none"> • To what extent are the visibility and effectiveness of the professional occupational therapist’s roles evident in public universities in the UK and Pakistan? 	<p>The presence of professional occupational therapy is quite low and reflects in respondents’ awareness of it. Nevertheless, its visibility and effectiveness are reported as higher in the UK (a developed economy) than in Pakistan (an emerging economy). There was a country-difference here too.</p> <p>It is more visible to, and effective among teaching rather than administrators, and for women than for men. However, we found only limited reports of the effectiveness of occupational therapists, in both countries.</p>

6.2 Overall Conclusion

Objective 1: *“To examine the varying occupational stressors affecting the organisational commitment of males and females working at teaching and non-teaching faculties within the public universities of the UK and Pakistan.”*

As the relevant Pearson Chi-Square sig value is less than alpha ($=.047 < 0.05, p < \alpha$), we can state with confidence that *the reported causes of stress differ significantly between the UK and Pakistan* with organisational factors being the most commonly reported stressors at the public universities in both the UK and Pakistan.

The next most common stressors reported were personal and environmental. While organisational factors significantly higher in the UK than Pakistan (55.9% against 43.6%), personal and environmental sources of stress were reported at a significantly higher rate in Pakistan than in the UK (38.2% against 29.9%; 18.1% against 14.2%).

In this regard, Haque and Aston (2016) and Haque *et al.*, (2018) are confirmed. Considering gender, the likelihood ratio is highly statistically significant ($=0.000 < 0.05, p < \alpha$), confirming that the reported causes of stress differ for men and women. Detailed analysis revealed that overall, organisational factors affect both men and women most, followed by personal and environmental sources of stress (49.8% > 34.1% > 16.2%), though as stated above, their organisation was a more prominent source of stress to males (57%), and personal sources of stress to females (48.5%). In these respects, our findings refute Kumasey *et al.*, (2014) and Cicei (2012), while confirm both Haque and Aston (2016) and Haque *et al.*, (2016).

With a Pearson Chi-Square sig-value less than alpha ($=0.000 < 0.05, p < \alpha$), stress varies highly significantly for teaching and administrative staff. Detailed analysis revealed that, organisational stressors affect teaching staff more, while personal factors and environmental factors influence non-teaching staff more frequently (62.7% against 39.7% and 23.5%). This study supports, to some extent both Sackey and Sanda (2011) and Haque and Aston (2016) in that personnel with a different set of jobs are affected by different sources of stress. The Cramer V value confirmed a small to moderate, but statistically significant, effect of varying stressors on all three dimensions: gender, faculty and type of economy.

Qualitative analysis further confirmed that public university staff are affected by organisational, personal and environmental factors, with organisational and personal sources of stress equally evident in the UK and Pakistan (39% against 35%; and 39% against 35%).

In Pakistan organisational factors are reported higher than personal and environmental sources of stress among teaching staff (41% > 37% > 18%), whereas personal sources are mentioned more frequently than organisational and environmental factors for non-teaching staff (37% > 33% > 27%).

Overall males state that organisational factors affect them more than environmental and personal factors (53% against 35% and 8%), while females state that personal factors, rather than organisational and environmental factors, affect them more (65% against 20% and 10%). Hence, at public universities in both the UK and Pakistan, organisational factors cause higher stress to males, while women report more frequently that they are stressed by personal factors. These qualitative findings are aligned with the quantitative results and Sackey and Sanda (2011), Haque and Aston (2016), Haque *et al.* (2016), and Haque *et al.* (2018) are all supported, while Kumasey *et al.* (2014) and Cicei (2012) is, to a certain extent, contradicted.

As all three types of stressor are evident in the public universities of the UK and Pakistan, Stranks (2005) is supported. Interestingly, the analysis revealed that long working hours, conventional structures, lack of control and workload are commonly disliked, job-related causes of stress, supporting Mark and Smith (2018).

The qualitative findings indicate that, overall, “interacting and communicating”, followed by “structural pattern” and “expanding knowledge” are the most liked job attributes (26% > 24% > 19%). Nevertheless, teaching staff prefer highly “expanding knowledge”, while non-teaching staff prefer “structural pattern” (33% against 41%). Males reported as favouring “structural pattern”, while females marginally preferred “interacting and communicating” (29% against 27%). Within the two countries, gender variations are evident, but long working hours, conventional structures and workloads are disliked equally in the UK and Pakistan (22% > 21% > 20%). For teaching staff, long working hours and for administrators, workload were the stated disliked job-related features (24% against 22%). Men responded with long working hours as a disliked job-attribute, but females, conventional structures (24% against 20%), consistent with Haque *et al.*, (2018), Mark and Smith (2018) and Haque and Aston (2016).

Interestingly, organisational politics is a stressor that is evident in the UK, which is a new development. Additionally, within personal factors, family problems and personality clashes are reported at higher rates by UK female university employees, comparatively speaking, while family and financial issues cause stress to Pakistani women; males in both countries reporting that they are highly affected by task demands (which we have classified as an ‘organisational factor’).

Objective 2: “To examine the varying consequences of occupational stress among males and females working at teaching and non-teaching faculties within public universities of the UK and Pakistan.”

From the statistical test, it is evident that the reported consequences of stress differ in the UK and Pakistan, as the sig-value of the Pearson Chi-square is less than alpha ($=.020 < 0.05, p < \alpha$), this shows a statistically significant difference between countries. Overall, public university personnel report a high level of emotional (psychological) stress symptoms in both the UK and Pakistan (33.1%). However, after emotional symptoms, behavioural and physical symptoms are higher in Pakistan (22.5% and 20.6%), while cognitive symptoms (the effects on cognitive efficiency) are higher in the UK (29.9%).

Emotional and physical symptoms are the most common reported consequences of stressors in the UK and Pakistan. This study differs from Haque *et al.*, (2016) and Haque *et al.*, (2018), but supports Mark and Smith (2018), to a certain extent. With regard to gender, the Likelihood ratio sig-value is less than the alpha ($=0.000 < 0.05, p < \alpha$), indicating that the consequences of stress differ in a *highly statistically significant* way between men and women surveyed. Detailed analysis revealed that female personnel, in contrast to male staff, report higher emotional symptoms (48.5% against 18.1%) and cognitive symptoms (30.2% against 8.8%), whereas males, reported higher physical symptoms (37.7% against 12.4%) and behavioural symptoms (35.3% against 8.8%).

Nevertheless, a higher degree of both physical and psychological effects of stress were reported by staffs in both the UK and Pakistan, largely, supporting Mark and Smith (2018).

Lastly, the Pearson Chi-Square sig value confirmed that the consequences of stress are statistically significantly different for teaching and administrative staff ($=0.004 < 0.05, p < \alpha$). Detailed analysis revealed that teaching staff report emotional effects to a greater extent (35.8%), whereas non-teaching staff report physical symptoms in large numbers (32.8%). In both countries staff behavioural and cognitive symptoms were reported. Since the findings confirmed that psychological and physiological symptoms are widespread among public university personnel this is consistent with Mark and Smith (2018) and Stranks (2006), but challenges Haque and Aston (2016), Haque *et al.*, (2016), and Haque *et al.*, (2018). Cramer's V value confirmed that the effect is small to moderate but statistically significant for all three dimensions: gender, faculty and types of economy.

The qualitative findings confirmed that overall psychological (emotional) consequences are reported by as many as 36% of all staffs across both countries sampled. In the UK, emotional and cognitive symptoms are slightly higher than Pakistan (37% against 35%; and 12% against

8%), whereas bigger differences in behavioural and physical consequences are reported by university staff in Pakistan (33% against 24%; and 22% against 18%).

Overall, teaching staff reported higher psychological symptoms (39%), whereas non-teaching staff reported higher behavioural (29%) and physiological effects of stress (27%). Concerning gender, psychological symptoms are higher in females (43%), while behavioural, physiological and psychological symptoms are higher among males (41% > 22% > 22%). Both psychological and physiological symptoms are confirmed qualitatively. These results are aligned with Stranks (2006) and Mark and Smith (2018). The varying consequences, by country, gender and faculty, depart strongly from Haque and Aston (2016), Haque *et al.*, (2016) and Haque *et al.*, (2018).

Not only does our ‘funnel approach’ reveal that young, less-experienced employees are more likely to report stress, more young employees report psychological symptoms, whereas experienced employees report higher physical and behavioural stress effects. Another important finding is that acute stress (hyper-stress) is evident among female personnel, whereas chronic stress is more prevalent in males.

Objective 3: “To evaluate the potential impact of the effectiveness of the occupational therapist, perceived job stress, personal strain, personal resources and social support for the organisational commitment of public universities’ personnel in the UK and Pakistan.”

From the quantitative investigation, it is evident that personal strain, personal resources and social support, have large reported effects on organisational commitment, while to some extent perceived job stress affects organisational commitment though the rated effectiveness of occupational therapy is non-significant. Through a partially recursive model, it is confirmed that personal strain has a statistically significant impact on all three antecedents of organisational commitment. Its impact is statistically highly significant in its effects on affective commitment, while barely statistically significant regarding normative commitment and continuance commitment ($p\text{-value}=0.0000 < 0.05, p < \alpha; =0.011, p < \alpha; =0.030, p < \alpha$). In this regard, the present findings confirm, to a certain extent, Brannon and Fiest (1992), Sackey and Sanda (2011) and Haque and Aston (2016) in that personal strain is interlinked with organisational commitment.

Concerning gender, faculty, and type of economy, the findings show that personal strain has *highly* significant reported effects on AC in Pakistan, though less significant effects in the UK ($=.000 < 0.05, p < \alpha; =.023 < 0.05, p < \alpha$). Furthermore, personal strain is shown to have a statistically significant impact on normative commitment in both sampled countries ($=.011 <$

0.05, $p < \alpha$; $=.020 < 0.05, p < \alpha$). Hence, this study differs from Zehra *et al.*, (2017b). Our findings indicate that strain has a significant impact on continuance commitment in both countries ($=.030 < 0.05, p < \alpha$; $=.021 < 0.05, p < \alpha$) and a higher effect on organisational commitment in Pakistan. Overall, the impact is statistically significant. The group statistics further confirmed that personal strain is more visible in the UK than in Pakistan ($=1.2603 < 1.2812$).

Considering gender, personal strain is statistically significant in affecting males' AC, yet non-significant for females' ($=.001 < 0.05, p < \alpha$; $=.096 > 0.05, p > \alpha$) a finding that conflicts with Sackey and Sanda (2011) and Brannon and Fiest (1992), while being consistent with Haque *et al.* (2016). Personal strain significantly affects the NC of both sexes ($=0.013 < 0.05, p < \alpha$; $=0.031 < 0.05, p < \alpha$), while males are more significantly affected than females. Overall, both genders' NC is affected significantly by personal strain, a finding consistent with Brannon and Fiest (1992), Sackey and Sanda (2011) and Haque *et al.*, (2016). Lastly, females' continuance commitment is affected by personal strain to a significant degree, whereas males' CC is not significantly affected ($=0.002 < 0.05, p < \alpha$; $=0.435 > 0.05$). The CC of males and females differ, in that personal strain has a non-significant impact on males' CC, while it has a significant impact on females' CC. In this respect, this differs from Haque *et al.*, (2016). Group statistics show that women reported personal strain as being more than do men ($=3.6403 < 3.9853$).

Personal strain affects the AC of teaching and administrative staff significantly ($=0.000 < 0.05, p < \alpha$; $=0.002 < 0.05, p < \alpha$). This is a new development but partially supports Haque and Yamaoh (2014) and Haque and Aston (2016). Personal strain is reported as highly visible among teaching staff, in contrast to administrators ($=1.2298 < 1.3106$).

Perceived job stress has a highly significant effect upon AC and NC but a non-significant impact on CC, affecting affective commitment in the UK and Pakistan ($=0.002 < 0.05, p < \alpha$; $=0.000 < 0.05, p < \alpha$), supporting Mark and Smith (2008), to some extent, while differing from Haque and Aston (2016) with respect to contrasting economies. Furthermore, normative commitment affected to a highly significant degree by perceived job stress ($=0.000 < 0.05, p < \alpha$; $0.000 < 0.05, p < \alpha$), consistent with Haque and Aston (2016) and Zehra *et al.*, (2017b). Interestingly, continuance commitment is affected non-significantly by perceived job stress in the contrasting economies ($=0.136 > 0.05, p > \alpha$; $0.220 > 0.05, p > \alpha$). Perceived job stress has no significant role in determining the CC of respondent in both countries, supporting Zehra *et al.*, (2017b), while conflicting with Haque and Aston (2016).

In terms of gender, AC is statistically significantly affected by perceived job stress ($=0.002 < 0.05, p < \alpha$; $=0.002 < 0.05, p < \alpha$). Perceived job stress has a significantly different effect on men's and women's AC, differing from Haque *et al.*, (2016), Kumasey *et al.*, (2014) and Sackey and Sanda (2011). Moreover, 'perceived job stress' has statistically significantly different effects on NC by gender ($=0.002 < 0.05, p < \alpha$; $=0.046 < 0.05, p < \alpha$), again, diverging from the authors mentioned above.

We have statistical confirmation that continuance commitment in male respondents is significantly affected by perceived job stress, whereas females' CC is non-significantly affected by it ($=0.012 < 0.05, p < \alpha$; $=0.700 > 0.05, p > \alpha$). Men's CC is significantly reduced owing by perceived job stress, but not women's CC. These findings contradict Hemdi (2009) and Kumasey *et al.*, (2014), but are consistent with Haque and Yamoah (2014), Haque and Aston (2016), Haque *et al.*, (2016) and Haque *et al.*, (2018).

Perceived job stress significantly affects the affective commitment of teaching staff, whereas it has *highly* significant impact on the AC of non-teaching staffs ($=0.015 < 0.05, p < \alpha$; $=0.000 < 0.05$). This is a new finding. The normative commitment of administrative staff is affected by perceived job stress to a highly significant extent, but it has no significant impact on the NC of teaching staff ($=0.000 < 0.05, p < \alpha$; $=0.344 > 0.05, p > \alpha$). Again, this is a new development. Perceived job stress has statistically significant effects on the continuance commitment of non-teaching staff but a non-significant impact on the CC of teaching staff ($=0.040 < 0.05, p < \alpha$; $=0.656 > 0.05, p > \alpha$). This is also a new development. Though there is no conclusive evidence from the literature regarding these occupational groups, these findings support Haque and Aston (2016). The group statistics confirm that perceived job stress has higher visibility in the UK than in Pakistan ($=3.6732 < 3.8799$). In terms of gender, it is also reported as more visible by men than women ($3.6196 < 3.9330$) and is reported as highly visible in teaching staff compared with administrative staff ($=3.7575 < 3.8007$).

The role and effectiveness of the occupational therapist has a non-significant impacts on self-reported affective-, normative- and continuance commitment respondents in either country (AC= $0.616 > 0.05, p > \alpha$; AC= $0.070 > 0.05, p > \alpha$; (NC= $0.784 > 0.05, p > \alpha$; NC= $0.986 > 0.05, p > \alpha$; (CC= $0.18 > 0.05, p > \alpha$; CC= $0.872 > 0.05, p > \alpha$). This finding differs from Haque and Aston (2016). However, occupational therapy has a greater presence and reported effectiveness in the UK, compared with Pakistan (RR= $0.3040 < 0.3984$; EOP= $3.2467 < 3.5964$). Its impact is non-significant for the AC, NC and CC of teaching and administrative staff (Teaching: AC= $0.431 > 0.05, p > \alpha$; NC= $0.487 > 0.05, p > \alpha$; CC= $0.126 > 0.05, p > \alpha$; Non-teaching:

AC=0.475 > 0.05, $p > \alpha$; NC=0.878 > 0.05, $p > \alpha$; CC=0.144 > 0.05). Nevertheless, its perceived presence and effectiveness is more pronounced among non-teaching personnel (RR=.3379 < .3645; EOP=3.0082 < 3.8350).

Our data indicates that women's AC and NC are affected significantly; while males' AC and CC are affected non-significantly by occupational therapist. It affects females' CC but in non-significantly, while it significantly affects males' CC (Female: AC=0.025 < 0.05, $p < \alpha$; NC=0.047 < 0.05, $p < \alpha$; Male: AC=0.875 > 0.05, $p > \alpha$; CC=0.704 > 0.05, $p > \alpha$; Male: NC=0.318 > 0.05, $p > \alpha$; CC=0.002 < 0.05, $p < \alpha$). These findings are consistent with Haque *et al.*, (2016). Women seem more aware of occupational therapy than men (RR=0.2486 < 0.3284; EOP=3.3203 < 3.5264). Moreover, the qualitative findings confirm that its representation and perceived effectiveness is higher in the UK than Pakistan (29%). Its effectiveness is rated higher among non-teaching staff (31%), and in males, while females reported that they did not find occupational therapy effective in reducing stress (27% against 6%).

We had suspected that personal resources would have impacts; indeed overall, it has a statistically significant impact on AC and NC and a highly significant impact CC. In terms of the two economies, AC, NC and CC are affected significantly by personal resources in the UK and Pakistan (UK: AC=0.016 < 0.05, $p < \alpha$; NC=0.018 < 0.05, $p < \alpha$; CC=0.000 < 0.05, $p < \alpha$; Pakistan: AC=0.031 < 0.05, $p < \alpha$; NC=0.016 < 0.05, $p < \alpha$; CC=0.026 < 0.05, $p < \alpha$), a finding which supports Haque *et al.* (2018), Zehra *et al.*, (2017a), Haque and Aston (2016), Haque *et al.*, (2016) and Mark and Smith (2008), but contradicts Yilmaz, *et al.*'s (2014) to some extent. Interestingly, the group statistics confirmed that personal resources are felt as more salient in Pakistan than in the UK (=3.4436 < 3.5906).

Personal resources affect the CC of male and female personnel significantly (=0.017 < 0.05, $p < \alpha$; =0.022 < 0.05, $p < \alpha$); males' AC and females' NC are also affected significantly by personal resources (Male: AC=0.001 < 0.05, $p < \alpha$; Female: NC=0.007 < 0.05, $p < \alpha$), while they have no significant impact on the AC of females and NC of males (Female: AC=0.821 > 0.05, $p > \alpha$; Male: NC=0.229 > 0.05, $p > \alpha$). This differs from Kumasey *et al.*, (2014) but is aligned with Haque and Aston (2016), Haque *et al.*, (2016) and Sackey and Sanda (2011). Group statistics revealed that the self-reported visibility of the effective use of personal resources is higher among females than males (=3.8391 < 3.9985).

It is evident that personal resources affects the AC, NC, and CC of teaching staff in a highly statistically significant manner and significantly affect administrative staff (Teaching: AC=0.007 < 0.05, $p < \alpha$; NC=0.000 < 0.05, $p < \alpha$; CC=0.009 < 0.05, $p < \alpha$; Non-teaching: AC=0.041 < 0.05, $p < \alpha$; NC=.005 < 0.05, $p < \alpha$; CC=.011 < 0.05, $p < \alpha$). This is a new development. Group statistics suggest that reliance on personal resources is higher among non-teaching staff. (=3.3775 < 3.6569). The interview data indicates that stress management programmes are effective in dealing with stress (35%). However, they are more commonly used by UK employees (57% against 50% in Pakistan). Overall, teaching staff consider these programmes more effective than do non-teaching staff (40% against 30%), women more so than men (43% against 20%).

Overall, social support is found to have a statistically significant impact on affective commitment and a *highly* significant impact on the normative and continuance commitment of university personnel as a whole. It is evident that social support has a statistically significant impact on AC and NC and a *highly* significant impact on the CC of respondents in both countries (UK: AC=0.011 < 0.05, $p < \alpha$; NC=0.000 < 0.05, $p < \alpha$; CC=0.000 < 0.05, $p < \alpha$; PAK: AC=0.003 < 0.05, $p < \alpha$; NC=0.032 < 0.05 $p < \alpha$; CC=0.000 < 0.05, $p < \alpha$). This supports Haque *et al.*, (2018), Haque and Aston (2016), Haque *et al.*, (2016) and Sackey and Sanda (2011) but differs partially from Zehra and Faizan (2017). The group statistics confirmed that social support is reported as more visible in Pakistan than in the UK (=3.6756 < 3.7426). In terms of gender, social support has a statistically significant role in determining organisational commitment overall (Male: AC=0.009 < 0.05, $p < \alpha$; NC=0.035 < 0.05, $p < \alpha$; CC=0.009 < 0.05, $p < \alpha$; Female: 0.001 < 0.05, $p < \alpha$; NC=0.002 < 0.05 $p < \alpha$; CC=0.025 < 0.05, $p < \alpha$). Females report its higher visibility than do males regarding effective use of social support (=3.0842 < 3.3284). All three forms of organisational commitment are affected significantly by social support at the workplace (Teaching: AC=0.004 < 0.05, $p < \alpha$; NC=.004 < 0.05, $p < \alpha$; CC=.008 < 0.05, $p < \alpha$; Non-teaching: AC=0.006 < 0.05, $p < \alpha$; NC=.002 < 0.05, $p < \alpha$; CC=.001 < 0.05, $p < \alpha$). This is a new finding. Moreover, group statistics show that non-teaching staff report greater reliance on social support, than do teaching staff (=3.4608 < 3.9583).

The interviews showed that overall, 28% of university personnel find social support highly effective and exactly half considered it effective. Interestingly, this finding supports our statistical data showing a stronger preference, usage and felt effectiveness of social support (82%) in Pakistan. Teaching and non-teaching staff consider informal social support as

effective (84% against 71%). However, the quantitative findings suggest it has higher visibility among non-teaching staff, but higher effective usage among teaching staff. Similarly, social support was reported as more visible to females, while the interviews showed that, overall, males seem to use social support more efficiently than females in both countries (84% against 79%; and 83% against 69%). Social support emerges as more visible among females but used effectively by males.

The funnel approach confirmed that experienced employees (age 40 or above with 7 or more years' experience) felt they used social support constructively, partially supporting Mark and Smith (2018), but refuting Haque *et al.*, (2018), Haque *et al.*, (2016) and Haque and Aston (2016). Overall, most university personnel reported receiving more moral support than emotional support (36% against 27%). Nevertheless, moral and emotional support were more evident in Pakistan than in the UK (45% against 27%; and 31% against 22%). Interestingly, teaching staff felt they received higher emotional support, while non-teaching staff identified themselves as receiving moral support (37% against 41%). Males commonly felt they received *moral* support (47%), while females frequently stated they received *emotional* support (41%). These findings support Haque *et al.*, (2018), Haque *et al.*, (2016) and Haque and Aston (2016).

All three antecedents of self-reported organisational commitment are higher in Pakistan than in the UK (AC=3.6103 < 3.9583, NC=3.4510 < 3.9804, CC=3.3676 < 3.6324), the interview data confirm this (AC= 67% against 65%; NC=92% against 78%; CC= 69% against 56%). This directly supports Haque and Aston (2016), while it differs partially from Haque *et al.*, (2018), studies of the IT and Cargo Logistic sectors. Indeed from a G-GCT perspective the findings can be read the other way round, namely that as Organisational Commitment can be thought of an index for social solidarity, then it has a moderating effect on 'occupational stress'. High solidarity is an important cultural resource in that it contributes collective resilience.

In terms of gender, group statistics revealed that AC is highly visible among males, whereas NC and CC are self-reported as higher among females (Male: AC=3.1708 < 4.4044; Female: NC=3.6287 < 3.8137, CC=3.0637 < 3.9356), the interviews confirming this (79% against 52%). This study supports Haque and Yamoah (2014), Tan and Lau (2012) and Mathieu and Zajac (1990), but differs from Haque *et al.*, (2016). The qualitative findings also confirmed that NC and CC are higher among females than males (NC=86% against 84%; CC=67% against 58%). This finding differs from Haque and Aston (2016) but as CC is clearly higher among females, this supports Haque and Aston (2016), and Haque and Yamaoh (2016).

In terms of staff categories, group statistics show that AC and NC are more visible among non-teaching staff, while CC highly visible among teaching staff (teaching: $CC=3.3873 < 3.6127$, non-teaching: $NC=3.5735 < 3.578$, non-teaching: $AC=3.6275 < 3.9412$), the interviews showing the same though the difference is marginal (AC=69% against 65%; NC=88% against 82%)¹, while teaching staff have higher CC than administrative staff (73% against 51%). These are new findings but consistent with Chaudhry (2012) and Jackson and Rothman (2006). Moreover, despite higher power distance and collectivism (ie. ‘Hierarchy’ in G-GCT terms), organisational commitment is higher in Pakistan, than the UK. Nonetheless, there is evidence of gender and staff-type variations. While employees with more experience have higher AC, NC, and CC, traces of “situational commitment” are also evident, attributable to changing institutional features and dynamics.

6.3 Research Contributions

This project contributes in several ways, namely to measuring and understanding the relationship between occupational stress and organisational commitment comparatively. The researcher has taken care to differentiate concepts, adding a cultural dimension new to the field. We propose that cultural variations have a role in determining the relationship between stress and commitment in a professional setting. Previously, researchers treated occupational stress and organisational commitment in a general manner unaware of G-GCT to begin to understand gender, faculty and country variations. We commend G-GCT as it differentiates easily and specifically between different forms of reasoning in a simple and dynamic way, showing why cultures shift, indeed showing what ‘culture’ is.

¹ Note that the interviews can seem less sensitive to each variable than the survey was.

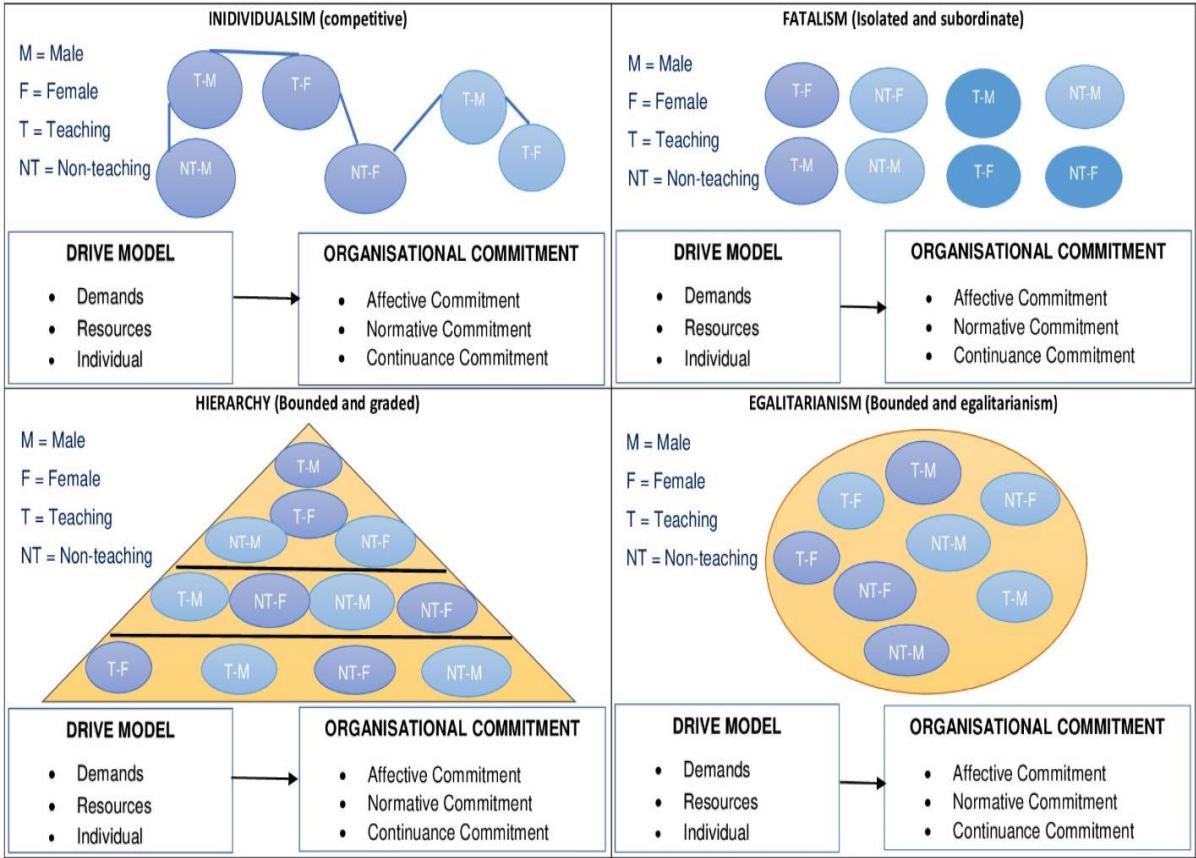


Figure 6. 1: New contribution to investigate relationship through lens of G-GCT

While our subject matter has been studied comparatively before, we have not found work that explains the variables of interest culturally. Moreover, because all four rationalities (Hierarchical, Egalitarian, Individualistic and Fatalistic) are ‘culturally available, it is easier to understand why a given culture at a given moment contains *cultural contradictions*. For example in Pakistan, Fatalism exists in the contradictory presence of the Hierarchical form of collectivism in Pakistan. These constitute the top left and top right positions on the G-GCT typology (above), ie Low-Group and High Grid, coexisting with High-Group and High Grid). Meanwhile Egalitarianism (High-Group and Low-Grid) coexists with Individualism (Low-Grid and Low Group). As thought stypes are in dynamic conflict we can expect that both countries will change over time. Indeed, for all their differences, all cultures represent temporary though institutionalised dynamic interarctions between the *same for available rationalities*. This new approach should prove useful to understanding all the variables of interest to us but in a new way that departs from Hofstede’s rather fixed and descriptive treatment of so-called ‘national cultures’. We emphasise: there is nothing essentially different between, say Fatalistic reasoning in Pakistan and Fatalistic reasoning anywhere else. The reasoning (and its associated fear of risk) is the same.

However cross-cultural comparison shows some effects which were strong enough to surprise this author and helped to open new pathways to new findings. We suggest that rather than treat ‘gender’ as a fixed category, it may be re-theorised using G-GCT, to the extent that one’s gender is a cultural phenomenon carrying varying sensitivities to risk and therefore variable sensitivity to ‘stress’. For instance, Individualistic reasoning is very tolerant of risk and by implication, revels in risk rather than hides from it. But Fatalistic reasoning is acutely sensitive to risk and is thus more stressed by what appears to be the some ‘risk environment’. That is each thought style comes with different susceptibility to stress, and the ‘stressors’ are perceived differently.

We have also contributed by testing the DRIVE model in the education sector in terms of gender, faculty type and types of economy.

The DRIVE model has not been used so multi-dimensionally before. The model was extended by adding organisational commitment.



Figure 6. 2: New dimensions contributed to the DRIVE Model

Previous studies had considered Hofstede’s cultural dimensions but not to compare developed and emerging economies. Moreover, this thesis contributes to the body of knowledge through using institutional theory, which though used for the public sectors has been limited to single case studies, whereas we have adapted it for comparative analysis.

Previous studies have heavily relied on discrete comparisons between variables treated singly. However, we have included multi-dimensions within one construct. We have also drawn on both qualitative and quantitative data to see how well these different findings support or depart from each other, improving robustness.

Some studies have focused on the causes of stress, the mediating roles of personal strain, perceived job stress, personal resources, role and effectiveness of occupational therapists while others explored the specific type of organisational commitment through single case study. There was little or no evidence of which among these factors was most significantly linked to variables of interest. For this reason, we incorporated all the previously considered variables within one construct, adding new dimensions including different economies, gender, and faculty types. Our 'three-dimensional' approach (that is, contrasting economies, gender, and faculty) examines the causes and consequences of stress along with other variables in relation to stress and commitment within one construct. This is a more holistic view to the problem statement than found in previous studies.

It is our criticism that previous studies are region specific and over-reliant on single case study whereas this research offers the possibility of broader generalization of findings of which we can be confident.

It is a useful finding that social support and stress management programmes are felt by respondents to be effective for reducing stress and in our language 'sustaining human capital'. We urge university policymakers to develop national and global standards for dealing with stress-related issues in complex business environments and to evaluate the effectiveness of different forms of intervention. The use of ABC (awareness, balance, and control) strategy is recommended to the university administrations as a means to reducing stress in professional settings.

Though comparative research is not new to our field, researchers either used pure quantitative or purely qualitative analysis, whereas we have combined them pragmatically. It has been shown how quantitative-cum-qualitative research can be used for examining the same variables of interest.

We took care, using multiple statistical tools to cross check for accuracy and reliability again improving robustness through the use of advanced statistical tools. Previously, researchers had relied too heavily on single regression to measure the relationship between stress and

commitment whereas this study used multiple regressions to examine the same relations. Thus, the present study is a methodological advance. Robustness matters:

First structural equation modeling was used to establish the overall relationship and total size effect, then multiple regressions for variations among genders, faculties, and types of economy. Moreover, for the categorical data, Chi-square testing was also included. Previously, for similar variables of interest, researchers relied on SEM, Chi-Square or single regressions. By using Q-Q plots for explaining the normality assumption and avoiding over-reliance on the statistical tests alone we also improved robustness. While some researchers have adopted this stance they have not directed it at stress and commitment in a cross-sectional manner.

This research has confirmed or contradicted, several recognised earlier studies; updating the literature on organisational commitment, occupational stress and social support. Previously there was no comparative study of the education sector. We feel it important that we have included different variables within one construct that were previously studied separately. A pleasing and perhaps unexpected finding is that *despite the rarity of occupational therapists' presence, the level of organisational commitment is higher in the emerging economy than in the advanced economy*. This finding causes us to question the meaning of 'developed' and 'under-developed'. It is most striking that organisational commitment is higher in the country with lower individualism and higher power distance and collectivism (ie. Hierarchy). Thus, this study contributes to new knowledge in the cultural aspect. We also found that age and experience have a definite role in dealing with stress and improved commitment, which adds the new knowledge to this field.

Additionally, while G-GCT has been applied to many settings, to our knowledge it has *never* been applied in this field.

Applied drama is another practical recommendation for the institutions to prepare the personnel to manage stress at workplace. Applied Drama (AD) takes many forms each of which enable participants to analyse, prepare and intervene on problems, objectively and therefore without animosity. Prepared Role-Plays modelled of regrettable events offers ways of finding new solutions in similar situations. Jackson and Vine (2013) while exploring the theatre within the education found that, applied drama educates participants in issues of immediate relevance to them and their communities. Furthermore. "it has always been among the most socially

conscious of theatre groups, consistently choosing to examine issues they believe to be of direct relevance to the lives of the individuals with whom they work” (Jackson and Vine, 2013). Meaningful prepared role-plays are an effective technique, which explores both familiar and unfamiliar and challenging situations. That is that they enable exploration and reduction of stressors in the workplace). It would be effective to see how the personnel respond to such situations by first using their own approach then experimenting with different possible solutions (in a testing process). The dialogues thus opened might work as ventilation therapy for some individuals while other might benefit in real time through viewing it as a chance to resolve the conflict. Furthermore, it can build self-confidence when handling realistic challenges but in a safe environment. Individuals would then be quick to take more effective steps when the moment came. Such increased competence should bring with it improved protection against burn-out and stress sensitivity. In G-GCT terms it would be valuable during brainstorming sessions to reflect on the equally reasonable and yet conflicting rationalities employed by participants, so each appreciate the four different perspectives.

Learning Sets are another of preparing personnel to cope creatively with each stressful situation. These are small gatherings in which participants explore each other’s approach to difficulties, test out and review different solutions in three-monthly cycles. When one solution fails the Set can assist in the development of new solutions. Again there is provision here for ‘ventilation therapy’ allied to initiative-taking.

Lastly, the use of both the “hypothetico-deductive-inductive” and “hypothetico-inductive-deductive” approaches, within one construct is a methodological contribution not seen previously in studies of the relationship between occupational stress and organisational commitment. In other words, this has opened up a new passage for future researchers to combine two approaches in investigating the “variables of interest” in a complex environment.

6.4 Research Implications

This section is divided into two parts. The first part contains the research suggestions for the future, while the second offers further practical implications to public universities for sustaining human capital and reducing occupational stress.

Future researchers shall consider the option of using controlled variables to explore further variations in variables of interest. We recommend further use of the same research framework. It is a point for discussion whether or not to ask respondents to provide direct and concrete answers as to, say what physical and psychological symptoms their GPs have diagnosed in

them, as an alternative to our 'attitudinal' approach. There remains a case for collecting employees' patient histories though it would be laborious. In our own defence, the attitudinal approach does provide access to respondent's subjective world and this is defensible in that it is the world which they occupy. Our point is that the relationships between the variables of interest operate not just objectively as a whole but subjectively within the minds of employees. In other words, if 'stress' affects 'commitment' someone will be perceiving and defining that stress and that act will have a bearing on how it affects them.

In future researchers could consider the use of focus group interviews with experts in order to gain a deeper understanding of the research variables. It will be interesting if future researchers use both individual interviews with university personnel and group interviews with experts from the education sector in order to explore research variables in more depth. Perhaps, this might lead to having a more comprehensive understanding. Future researchers should continue to take sample sizes into consideration, setting aside non-significant correlations and treating them as potential counter-factuals as a step towards re-formulating theories. The population sizes in this study have been acceptable, but by including other lower and upper range universities, wider generalizations may be possible.

This thesis considered occupational stress as independent variable (IV) and organisational commitment as dependent variable (DV), but there is no study that has interchanged the IV and DV. Thus, it would be interesting to see if organisational commitment affects the occupational stress or not. G-GCT would suggest that it *does*. Hence, researcher recommends that future studies shall consider occupational stress as dependent variable and organisational commitment as independent variable, distinguishing perhaps between the relationship between the variables for each 'thought style'. Different rationalities are disturbed by different and distinctive troubles.

Future studies should design questionnaires which distinguish between specific physiological symptoms and home-based stresses. It is also important to employ methods that helps researchers in identifying whether respondents are able to *recognise* and therefore self-report physiological symptoms of interest to researchers of workplace stress. Researchers should ensure that participants have better understanding about the types of support and ask questions such as asking respondents to describe what emotional and moral support means to them in practice, with examples.

Future researchers shall consider a longitudinal panel research design to investigate the same variables of interest. This will provide an opportunity to measure variations in responses over time. This would be recommended in recognition of the cultural shifts that are always taking place to some degree, even without respondents being quite aware of them. Five-year intervals would probably suffice in this case. We should be open to the possibility that there are either variations or confirmations of the findings in different timeframes.

Future researchers might consider categorizing respondents based on their work contract. In this study, no distinction was made, but perhaps future researchers could categorize employees as “full-time/ part-time” and “permanent/ short-term contracts” and “salaried/ hourly paid”. There is a possibility that there are variations in the responses of employees having different work statuses.

What practical suggestions?

We have some evidence that universities should introduce formal social support programmes. Informal social support exists and its effectiveness is high. Universities should foster even informal support and certainly do nothing to damage it. As the principle of “collegiality” may be a source of social support, this should be preserved. We think it likely that a formal, structured system should also improve the chances of dealing with stress-related issues successfully.

The interviews findings show that the majority of university personnel did not have the appropriate information about the role of nor need for the occupational therapist. This may explain reluctance to use occupational therapists. It is advised that there should be regular workshops to inform employees of the importance of attending counselling sessions with experts in stress-release. Occupational therapy can be practiced only when personnel are informed and educated about it.

Women reported higher acute (hyper) stress, while males reported higher chronic stress. Excess workload, a personal mishap at home, serious injury are commonly reported by females, as the sources of their acute type of stress. Men reported challenging relationships, financial difficulties, boredom, fatigue, which they identified as the source of their chronic stress. Universities should be aware of long working hours, workload and conventional (bureaucratic) structures as leading to depression, anxiety, high blood pressure, disturbed sleep and eating patterns, fatigue, mood swings.

Repetitive tasks, rigid processes, poor opportunities for experimentation and creativity increase stress and its adverse effects. While employees inhabiting Hierarchical reasoning may not welcome it, for the other thought styles stress may reduce if jobs are made more flexible; job-rotation introduced and over-loads re-distributed. Jobs should be made more exciting and enjoyable, which would be welcomed especially in as far as the Individualistic thought style prevails, so that employees' stress is reduced and commitment improves.

In the UK, organisational politics is clearly a stressor (we suspect especially for Egalitarian-minded employees) and the management at universities should consider a way to ensure that lobbies are not created where specific individuals work closely against others. Instead, networking and teamwork should be promoted. The management should consider a policy of rotating personnel, especially administrative staff in the offices, from time-to-time, whereas the teaching staff should be given group tasks with other teachers, in order to collaborate in workshops and seminars, so that instead of lobbying, there is networking and teamwork.

Lastly, young employees reported higher stress and lower organisational commitment. There could be various reasons behind this, particularly their relatively lower levels of autonomy and authority (legitimate power). However, it is also likely that less experienced employees have yet to learn how to deal with occupational stressors. The literature suggests that stress management programmes are effective in dealing stress immediately. We suggest that universities should arrange stress management sessions for employees, especially young employees, to improve their organisational commitment and reduce occupational stress. As social support contributes to stress reduction universities should develop social support programmes which enable young employees to work in close collaboration with experienced personnel. Mentoring inexperienced staff would bring stress reduction and increased organisational commitment. Often, it is said that there is 'no substitute for experience' but means of enabling knowledge transfer from the experienced to the inexperienced should reduce employee turnover, stress and develop human capital.

6.5 Research Limitations

We recognise, fatalistically(!) that there will always be limitations within research. When a researcher prefers one option over another, there is always an opportunity cost because the alternative is sacrificed. Nevertheless, these limitations serve as a foundation for future researchers to consider and include in their future research. Exclusion of alternatives is not an

error as every research project needs to have boundaries drawn around it in order for the inquiry to be researchable rather than sprawling.

Any research design involves limitations. Perhaps, the use of a longitudinal design for measuring the same respondents' opinion in two different time lags or intervals might have been interesting, but it would have been beyond our available resources, especially time resources. Cross-sectional design was adequate for our research aim and objectives. This research was also comparative analysis and multi-dimensions and we could not recommend abandonment of these features, however, inclusion of job features, such as style of work, nature of work, temperament, experience, might have shed light on some interesting variations. Nonetheless, this study had the objectives of finding causes, consequences and predictors affecting the antecedents of the dimensions and, therefore, focused on those aspects. It would be very intriguing, however, to explore the research phenomenon through controlled variables.

Although small, the sample was drawn carefully enough to allow for generalizations. While only public universities were included there is a chance that the level of commitment and stress might be different for private institutions. It would have been interesting to compare the findings from public and private universities.

This study was self-funded and funding limits were mitigated through use of online-questionnaires which served the purposes of the research. Where possible, participants body language and facial expressions were noted, for example through SKYPE interviews. Expert panels were not used because of the difficulty in gathering selecting and gathering experts together and owing to constraints on the expert. The Delphi technique was not used though it could be interesting to record experts, on a single platform, sharing their expertise. Despite these limitations, obedience to ethical guidelines, methodological reviews and application of systematic procedures enabled the extraction of credible findings without compromising validity and reliability.

6.6 Concluding Remarks

In the light of the primary evidence, it is concluded that occupational stress (personal, organisational and environmental) affect men and women working as tutors and administrators in UK and Pakistani universities. The consequences of stress (behavioural, physical, emotional and cognitive) vary. The most frequent stressor is the “*organisational stressor*”, while “*emotional symptoms*” are a common effect in both university systems. The effectiveness of the occupational therapist is non-significant, but personal strain, perceived job stress and

personal resources significantly affect the antecedents of organisational commitment: affective commitment, normative commitment, and continuance commitment. Nevertheless, social support and stress management are effective in reducing occupational stress and increasing organisational commitment.

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APPENDIX A

Label	Faculty - Label
M	T
M	T
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M	T
M	T
M	T
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F	T

Number of Respondents		Statistic	
Themes	Letter code (g)	Frequency	Proportion
Male	M	Teaching	24 49%
Female	F	Non-teaching	25 51%
		Total	49 100%

Statistic	
Frequency	Proportion
Teaching	25 51%
Non-teaching	24 49%
Total	49 100%

Teaching	49	50.00%
Non-teaching	49	50.00%
Total	98	100%

Number of Female Respondents		Statistic	
Themes	Letter code (FCY)	FEMALE	Frequency
Teaching	T	Teaching	24 49%
Non-teaching	NT	Non-teaching	25 51%
		Total Respondents	98

Number of Male Respondents		Statistic	
Themes	Letter code (FCY)	MALE	Frequency
Teaching	T	Teaching	25 51%
Non-teaching	NT	Non-teaching	24 49%
		Total Respondents	98

Respondents	
Males	49
Females	49
Total	98

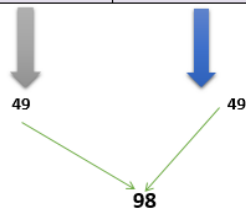
Teaching	49
Non-teaching	49
Total	98

Faculty			
Gender	Teaching	Non-teaching	Total
Male	25	24	49
Female	24	25	49
Total	49	49	98

Gender	COUNTRY		
	Pakistan	United Kingdom	Total
Male	25	24	49
Female	24	25	49
Total	49	49	98

Faculty	COUNTRY		
	Pakistan	United Kingdom	Total
Teaching	25	24	49
Non-teaching	24	25	49
Total	49	49	98

	PAKISTAN		UNITED KINGDOM		Total
	Male	Female	Male	Female	
Teaching	13	12	12	12	49
Non-teaching	12	12	12	13	49
Total	25	24	24	25	98



		Responses	Themes	Letter code	OVERALL		FEMALE	MALE	
					Statistic		Statistic	Statistic	
PAKISTAN	MALE	1 Fine	SS T	Highly satisfied	VS	Frequency	Frequency	Frequency	
	2 Fine	SS T	Satisfied	S	Highly satisfied	31	Highly satisfied	18	
	3 Fine	SS T	Satisfied	S	Satisfied	29	Satisfied	13	
	4 Good	S F	Neither satisfied nor di:	N	Somewhat satisfied	20	Somewhat satisfied	6	
	5 Good	S F	Somewhat dissatisfied	SD	Neither satisfied nor di:	8	Neither satisfied nor di:	4	
	6 Pleasant	S F	Dissatisfied	D	Somewhat dissatisfied	5	Somewhat dissatisfied	3	
	7 Great	VS T	Highly dissatisfied	VD	Dissatisfied	1	Dissatisfied	1	
	8 Fine	S F	Highly dissatisfied	VD	Highly dissatisfied	4	Highly dissatisfied	4	
	9 Perfectly fine	VS T			Total	98	Total	49	
	10 Ok	N NT							
	11 Fine	SS NT			OVERALL		FEMALE	MALE	
	12 So so	SS NT	Highly satisfied	23	8	Proportion	Proportion	Proportion	
	13 Yes, it is good	S NT	Satisfied	13	16	Highly satisfied	32%	Highly satisfied	27%
	14 Ok	N NT	Somewhat satisfied	7	13	Satisfied	30%	Satisfied	27%
	15 So so	SS NT	Neither satisfied nor di:	2	6	Somewhat satisfied	20%	Somewhat satisfied	12%
	16 Amazing	VS T	Somewhat dissatisfied	3	2	Neither satisfied nor di:	8%	Neither satisfied nor di:	8%
	17 Good	S NT	Dissatisfied	0	1	Somewhat dissatisfied	5%	Somewhat dissatisfied	6%
	18 Excellent	VS NT	Highly dissatisfied	1	3	Dissatisfied	1%	Dissatisfied	2%
	19 Good	VS NT	Total	49	49	Highly dissatisfied	4%	Highly dissatisfied	0%
	20 Great	VS NT	Grand total Respondent	98		Total	100%	Total	100%
	21 Fine. Just ok	SS NT							
	22 Just ok	SS NT							
	23 Neither satisfied	N NT							
	24 I am satisfied	S NT			Teaching	Non-teaching			
	25 Yes, it is good	S NT	Highly satisfied	47%	16%				
26 Good	S NT	Satisfied	27%	33%					
27 Ok	SS NT	Somewhat satisfied	14%	27%					
28 Excellent	VS T	Neither satisfied nor di:	4%	12%					
29 Its Ok	SS NT	Somewhat dissatisfied	6%	4%					
30 Fantastic. I love	VS T	Dissatisfied	0%	2%					
31 It so. Ok.	SS NT	Highly dissatisfied	2%	6%					
32 I enjoy it	VS NT	Total	100%	100%					
33 Not very much	SD NT								
34 I think its like 8/10	VS T								
35 Exciting	VS NT								
36 Good	S F								
37 Well, no substir	S F								
38 Amazing	VS T								
39 Its really good	S NT								
40 Pretty Ok but n	SD NT								
41 Just OK	SS NT								
42 You can say nei	N T								
43 Its alright	SS NT								
44 I like it. Its fant	VS T								
45 Its good	S F								
46 Yeah, its good e	S F								
47 Well Ok	SS NT								
48 Its very reward	VS NT								
49 Good	S F								
PAKISTAN	FEMALE	50 Ok	N NT						
	51 Fine	SS NT							
	52 Ok	N NT							
	53 Excellent	VS NT							
	54 Fine	SS NT							
	55 Good	S NT							
	56 Great	VS T							
	57 Great	VS T							
	58 Great	VS T							
	59 Good	S F							
	60 Good	S F							
	61 Nice	SS T							
	62 Great	VS T							
	63 Great	VS T							
	64 Great	VS T							
	65 Good	S NT							
	66 Good	S NT							
	67 Good	S NT							
	68 Great	VS NT							
	69 Great	VS T							
	70 Ok	N NT							
	71 Excellent	VS T							
	72 Good	S NT							
	73 Amazing	VS T							
	UNITE KINGDOM	FEMALE	74 Yeah. I like it	S NT					
75 Its been high re		VS T							
76 Funnig. Its gettin		VD T							
77 Good		VS NT							
78 I like it. Its fant		VS T							
79 Getting bored		VD NT							
80 Bored		VD NT							
81 OK. It is so so.		SD T							
82 Never bored of		SS NT							
83 Ok. I am not too		N T							
84 Teaching itself i		SD T							
85 Its always chan		SS T							
86 Awful		D NT							
87 Love it		VS T							
88 I really like it. E		VS NT							
89 A bit dsappoint		SD T							
90 Its never boring		VS NT							
91 I am very happ		VS T							
92 I am fine. I wou		S NT							
93 I love it that's w		VS T							
94 Just OK		SS T							
95 Good		S NT							
96 Its good		S NT							
97 Its good		S NT							
98 Boring		VD NT							

		What do you like most about this job role and why?				OVERALL			FEMALE		MALE	
Responses		Themes		Letter code	Statistic	Statistic		Statistic		Statistic		
P A K I S T A N	1	MALE	1	Flexible Environment. There is no pressure. Previous job was way	FE	T	Flexible Environment	FE	Frequency	Frequency	Frequency	
	2		2	Course structure. It is set pattern. I like such stable routine	SP	T	Structural Pattern	SP	Flexible Environment	Flexible Environment	Flexible Environment	
	3		3	Interacting with students. Able to learn more	IC	T	Interacting & Communic	IC	Structural Pattern	Structural Pattern	Structural Pattern	
	4		4	Teaching. Increases my learning	KL	T	Expanding Knowledge an	KL	Interacting & Communic	Interacting & Communi	Interacting & Communi	
	5		5	Plain and simplicity. I do not like complex things	SP	T	Creativity	C	Expanding Knowledge and Learning	Expanding Knowledge a	Expanding Knowledge a	
	6		6	Opportunity to meet people. I like interactions	IC	T	Variety	V	Creativity	Creativity	Creativity	
	7		7	Flexible Style and Social Environment. It gives me a peace of mind	FE	T			Variety	Variety	Variety	
	8		8	Teaching itself. Experience of meeting and communicating. I am a	IC	T			Total	98	Total	
	9		9	Communicating thoughts. Through Communication knowledge exp	SP	T			Total	98	Total	
	10		10	Everything but it is a stable work. No rushing. It suits myself, my	SP	NT			Total	98	Total	
	11		11	Relaxed work. There is no pressure, no changes	FE	NT			Total	98	Total	
	12		12	Routine Pattern. I hate fluctuation	SP	NT	Teaching	Non-teaching	Total	98	Total	
	13		13	Structural work. All is good in it. One pattern, one approach, no c	SP	NT	7	9	Overall	Overall	Overall	
	14		14	Routine work. I am a person who prefers to do same things. I don	SP	NT	5	20	Proportion	Proportion	Proportion	
	15		15	Routine work. It set pattern, daily work, no fluctuation	SP	NT	14	10	Flexible Environment	Flexible Environment	Flexible Environment	
	16		16	Opportunity to educate others. It gives me satisfaction to educate	KL	T	16	3	Structural Pattern	Structural Pattern	Structural Pattern	
	17		17	Everything. Contributing to knowledge. Self satisfaction	KL	NT	6	3	Interacting & Communic	Interacting & Communi	Interacting & Communi	
	18		18	I like a lot of aspects. Now I like the structural work but before m	SP	NT	1	4	Expanding Knowledge and Learning	Expanding Knowledge a	Expanding Knowledge a	
	19		19	Creativity is something I admire. I feel I can do it all day long	C	T	49	49	Creativity	Creativity	Creativity	
	20		20	I like doing different things. Trying different things doesn't let me	V	T	98	98	Variety	Variety	Variety	
	21		21	Routine tasks. I don't like changes	SP	NT	Total	Total	Total	100%	Total	
	22		22	Structural work. Changes usually irritates me	SP	NT	Total	Total	Total	100%	Total	
	23		23	Communicating with students. I feel like I am helping them. This i	IC	NT	Teaching	Non-teaching	Total	100%	Total	
	24		24	Flexible environment. There is no pressure. We work as a team	FE	NT	14%	18%	Flexible Environment	6	10	
25		25	It's really about interacting by helping students to achieve goals. S	FE	T	10%	41%	Structural Pattern	14	10		
26		26	It's really about interacting by helping students to achieve goals. S	IC	T	29%	20%	Interacting & Communi	12	13		
27		27	Interacting and helping people to improve life	IC	NT	33%	6%	Expanding Knowledge a	10	9		
28		28	Interacting with people. It does not stop you at one point in life	IC	T	12%	6%	Creativity	5	4		
29		29	I like interacting with people. Between students and Academics I	IC	NT	2%	8%	Variety	2	3		
30		30	Creativity. Sharing my experiences with others.	C	T	Total	Total	Total	49	49		
31		31	My Team. I like with them. Its routine work. I like work on daily	SP	NT	100%	100%	Total	98	98		
32		32	This is growth in it. I like interacting with others	IC	NT			Grand Total	98	98		
33		33	People here. My team. Very helpful and encouraging. Make it eas	FE	NT							
34		34	Space to breath. Creativity and autonomy in the research. There is	C	T							
35		35	Interacting and communicating with students	IC	NT							
36		36	Meeting new students. Getting chance to expand my knowledge. I	KL	T							
37		37	Student contact. Communicate and listen to their ideas	IC	T							
38		38	Teaching and Research. Expanding knowledge. Occasionally I like	KL	T							
39		39	Variety of work. It keeps me on toe	KL	NT							
40		40	Working in different areas. It gives me more creativity	C	NT							
41		41	Structural Work. I do not like changes	SP	NT							
42		42	Creativity, trying new experiments. I get bored to structural and f	C	T							
43		43	It's a joy sharing knowledge. I like helping my team, especially ne	KL	NT							
44		44	Interacting to give knowledge. Important for me is giving out infor	KL	T							
45		45	Distributing knowledge	KL	T							
46		46	Intellectual activities. Sharing Knowledge	KL	T							
47		47	Routine work. I hate changes. I like to work on same pattern	SP	NT							
48		48	I enjoy working directly with the students and academics. Its real	IC	NT							
49		49	Obviously knowledge sharing	KL	T							
50		50	Doing something new. I like new things so I am not bored	C	NT							
51		51	Engagement with others. It gives me something new to learn	KL	NT							
52		52	Healthy Environment. There is no work pressure	FE	NT							
53		53	Structural work. I like things in order	SP	NT							
54		54	Diversity. A chance to do different things	C	NT							
55		55	Structural work. All patternized and organized	SP	NT							
56		56	Everything. I usually like new things. It gives me a creativity, cha	FE	T							
57		57	Job itself. Flexible hours, communicating. Flexible hours the most	FE	T							
58		58	Interacting with students. Opportunity to communicate ideas. Ide	IC	T							
59		59	Specific content to teach. I hate changes. Sticking to same theme	KL	T							
60		60	A chance to gain knowledge. I receive information. In this, I am up	KL	T							
61		61	Inspiring others. Improving their lives. I am a social person. I love	FE	T							
62		62	Flexible Environment. Peaceful environment gives me positive tho	FE	T							
63		63	Interacting with students. My interest always been to improve of	IC	T							
64		64	Interacting to students. I enjoy meeting different students. Teach	IC	T							
65		65	There are many things but in these four years best feature of my j	SP	NT							
66		66	Flexible environment. No work pressure	FE	NT							
67		67	Structural work. No one like too much fluctuation or changes	SP	NT							
68		68	Definitely flexible environment. There is no pressure on us. We w	FE	NT							
69		69	Interacting with students and intellectual people. We exchange ide	SP	NT							
70		70	Routine work. I enjoy ry	SP	NT							
71		71	Flexible environment. Limited load	FE	T							
72		72	Doing daily work. Same patternized work	SP	NT							
73		73	Interaction and chances of communicating with students	IC	T							
74		74	Dealing with students. I am into customer services for long and I l	IC	NT							
75		75	Enabling and empowering students to reach their potential throug	KL	T							
76		76	Giving knowledge. I feel I am improving by doing so	KL	T							
77		77	Recruiting. It gives me a chance to do something different	KL	NT							
78		78	Interacting with students. I like it.	IC	T							
79		79	Flexible environment. There are friendly people around	FE	NT							
80		80	Routine task. On daily basis I know what to do. No changes in an	SP	NT							
81		81	Routine task. 9 to 5 help my way. I can live my life easily once I	SP	T							
82		82	Interacting with students. That's is what I am here for and I enjoy	IC	NT							
83		83	I like research work. I make contribution to other individuals. Giv	KL	T							
84		84	Interacting with others. It gives me a chance to know others and t	KL	T							
85		85	One thing. I teach and I am committed to it. I give knowledge.	KL	T							
86		86	Interacting with colleagues and students	IC	NT							
87		87	Interacting with students because I feel everyone has right to earn ec	IC	T							
88		88	I am in customer services but the relaxed environment is enabling r	FE	NT							
89		89	Intellectual engagement with students. It increases knowledge dim	KL	T							
90		90	Freedom of information. There is variety of work. You can affect	V	NT							
91		91	I like to do research. Expands my knowledge	KL	T							
92		92	Making students' life better by giving them support. There is poli	SP	NT							
93		93	I like when any student achieve something great. I talk to my stud	KL	T							
94		94	I have routine style of teaching. I want creativity. I love doing som	C	T							
95		95	Working in team because it makes day faster. Sharing informatio	FE	NT							
96		96	I have recently change my role. I like changes	IC	NT							
97		97	Interacting with students	IC	NT							
98		98	Interacting with students	IC	NT							

		Is there anything you do not like about this job role and why?				OVERALL			FEMALE		MALE	
Responses		Themes		Letter code	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	
					Frequency	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency	
P A K I S T A N	1	Lack of practical exposure for students. Following traditional text book is no	CS	T	Conventional structure	CS	21	Conventional structure	10	Conventional structure	11	
	2	Changes in outline. It disturbs my routine.	C	T	Changes	C	11	Changes	6	Changes	5	
	3	Workload. I am teaching and sometimes looking after other works	W	T	Workload	W	20	Workload	9	Workload	11	
	4	In job role nothing but travelling too much is but annoying. I have health iss	EF	T	External Factors	EF	18	External Factors	9	External Factors	9	
	5	Changing and chopping. External factors also like rain, structural etc.	C	T	Long working hours	C	22	Long working hours	10	Long working hours	12	
	6	Not any such thing but travelling is a bit of concern. I am aging and its diffic	EF	T	Nothing	N	6	Nothing	5	Nothing	1	
	7	Not exactly, I can think of anything but my health is disturbed due to late sit	L	T								
	8	Long hours. Travel takes my too much times	L	T								
	9	Long working hours. It takes me almost 3 hours daily and some time more th	L	T								
	10	It has so much complication. Red tapism. For each thing, one long process is	CS	NT								
	11	Too much rigidity in process. Like sometimes a file has to go from one desk	CS	NT								
	12	Long hours. I have backage issue.	L	NT								
	13	Excessive workload. It's a state of anxiety. At time like in specific month we	W	NT	Conventional structure	12	9	Conventional structure	28%			
	14	Changes. Like new head asking for change in work pattern	C	NT	Changes	4	7	Changes	18%			
	15	High workload. I am alone and there is over burden	W	NT	Workload	9	11	Changes	18%	Conventional structure	20%	
	16	Not directly but I see there are hurdles. Too much hierarchy. It delays work.	CS	T	External Factors	8	10	Workload	20%	Changes	12%	
	17	Rigid policies. High dependence on others for small things	L	NT	Long working hours	12	10	External Factors	19%	Workload	18%	
	18	Rigid policies. High dependence on others for small things	CS	NT	Nothing	4	2	Long working hours	22%	External Factors	18%	
	19	Too much restricted ways of teaching subjects. Same pattern, same assessme	CS	T	Total	49	49	Nothing	8%	Long working hours	20%	
	20	Many things but mostly orthodox way of teaching. High restrictions on tryin	CS	T	Grand Total Response	98	98	Nothing	100%	Nothing	24%	
	21	Workload	W	NT								
	22	Changes of any type	C	NT								
	23	Long working hours. The city situation is also not good so staying away for	L	NT								
	24	Nothing. I am absolutely fine with all	N	NT								
25	Long hours. It exhaust me	L	T									
U N I T E D K I N G D O M	26	Here its four intakes. Too much workload	W	T	Changes	8%	14%					
	27	I am a research person. Its here management role. I feel like too much of my	EF	NT	Workload	18%	22%					
	28	Office Politics. I don't feel comfortable in such situations. Came here to mak	EF	T	External Factors	16%	20%					
	29	Long hours. The bad thing is I have to work for too long. Its very time con	W	NT	Long working hours	24%	20%					
	30	Excessive workload. I am managing too many things together	W	T	Nothing	8%	4%					
	31	Workload. Too much pressure. Everytime I am moving around. If you notice	W	NT	Total	100%	100%					
	32	Change happen quite often	C	NT								
	33	Many such as constant change. Lack of staff and at times heavy workload. B	W	NT								
	34	I would say very very limited opportunities to move up in comparison to ind	EF	T								
	35	Too much other factors like coming from far away	EF	NT								
	36	I think moving to online. Making too much severe. Less paper work. I am a	EF	T								
	37	Red tapism. Bureaucracy. Following specific structure to make things in one p	CS	T								
	38	Making reports. Structuring reports. I can't read writing, especially internat	EF	T								
	39	Workload. Too high	W	NT								
	40	May be dealing with something for too long.	L	NT								
	41	Long hours.	L	NT								
	42	Too much fixed procedures. When I am not allowed to work my way. I simpl	CS	T								
	43	Marking and grading. I hate it. Making reports. I usually give them to others	EF	NT								
	44	Workload. Few intakes non-stop. Last week, old batch finished and now I am	W	T								
	45	Downside to teaching is that, it is fairly routine. So at times, it bores me	CS	T								
	46	Admin work. It is additional burden. Sometimes it stress me. Like I said, extra	W	T								
	47	Sitting for very long	L	NT								
	48	There is a lot of bureaucracy. Its difficult to work with those constraints.	CS	NT								
	49	Long working hours	L	T								
P A K I S T A N	50	Too much dependence on others. Dependent things are delayed unnecessarily	CS	NT								
	51	Not in job but the uncertainty in city is obstacle. I have family so if I am str	EF	NT								
	52	Many but mostly lengthy procedures. In each step, all approvals would follow	CS	T								
	53	Long working hours sometimes annoy me because I have to travel far away	L	NT								
	54	Same too much over workload due to diversity	W	NT								
	55	Too much burden. There is a lot of burden. I find less time for my family	W	NT								
	56	Conventional structure. I like experimenting but this job bounds me to certai	CS	T								
	57	Nothing that I recall but its too much time taking work.	W	T								
	58	Unnecessary rigid structure. Same modules, same way of assessing. I want pra	CS	T								
	59	Change in course structure or timing. Usually I prefer to be home by 6 PM be	C	T								
	60	Structural and traditional pattern. I want experimentation so I and students d	CS	T								
	61	Nothing. I am happy with it	N	T								
	62	Nothing. I like all aspects of my job. The challenges bring best out of me	N	T								
	63	Long working hours. I feel tired due to excessive workload and prolonged wor	W	T								
	64	Nothing but it is hectic. I have to manage all	W	T								
	65	Like I said external factors causes stress. Especially in chaos, if something ha	EF	NT								
	66	Changes. Usually when they are shuffling up schedules	C	NT								
	67	Changes	C	NT								
	68	Nothing	N	NT								
	69	Long working hours sometimes. Especially, evening classes starting late 6 to 9	L	T								
	70	Workload. I have to manage both my family and work. Its hectic	W	NT								
	71	Nothing. There is nothing I don't like	N	T								
	72	Long hours	L	NT								
	73	Rigid structure. When I have to follow routine patterns	CS	T								
U N I T E D	74	Not exactly much but there are some changes taking place. I might not like it	C	NT								
	75	Long working hours. I get tired	L	T								
	76	Long hours. I find no time for my family	L	T								
	77	When students lie and I have to follow routine work. I can't do anything abo	CS	NT								
	78	Long hours. I have limited time for my family	W	NT								
	79	Workload	W	NT								
	80	Its not flexible. 9-to-5 Can't move from my desk for long	W	NT								
	81	At times, it's stressful. Its heavy workload	W	T								
	82	Change is good but not when its too often because it's creating over workload	C	NT								
	83	Changes, Pressure from government. The policies of the government is chan	EF	T								
	84	Administrative burden. It is extra workload	W	T								
	85	Unreliable environment. Too many changes in the policies, procedures.	C	T								
	86	When I am not fairly treated by others. Lack of career opportunities.	EF	NT								
	87	Sometimes work pattern is process driven rather than student driven	CS	T								
	88	Personality clashes. Sometimes people are not nice so I feel bad	EF	NT								
K I N G D O M	89	Its casual type. I don't like unreliable environment. There is uncertainty. Whe	EF	T								
	90	Lately my boss. I am professional. I do things for the sake of all but he impo	EF	NT								
	91	Workload. Family time sacrifices like we can't go out for dinner or watch mov	EF	NT								
	92	Making everyone happy. There is politics most of the time	EF	NT								
	93	Long working hours but I am enjoying my job. I am satisfied	W	T								
	94	Excessive workload. Sometimes I have less time for my kids	W	T								
	95	Repetitive task	CS	NT								
	96	Sometimes long hours. Less flexibility	L	NT								
	97	The only thing that bothers me is system. Its not fit for purpose	EF	NT								
	98	Repetitive tasks. Doing something everyday	CS	NT								

		Is there anything you do to overcome it?				OVERALL		FEMALE		MALE			
		Responses	Themes	Letter code	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic		
P A K I S T A N	MALE	1 Like I said I am very balance person. Even a walk brings	B T	Break (short break/walk, et	B	Frequency	Break (short break/wa	22	Break (short break/wa	12	Break (short break/walk	10	
		2 Nothing	N T	Nothing	N	Frequency	Nothing	28	Nothing	11	Nothing	17	
		3 Nothing	N T	Take immedicate measure	TI	Frequency	Take immedicate mee	10	Take immedicate me	3	Take immedicate meas	7	
		4 Nothing	N T	Self meditation (Yoga, exer	SM	Frequency	Self meditation (Yoga	13	Self meditation (Yoga	8	Self meditation (Yoga, e	5	
		5 Not much	N T	Drink water/coffee/tea	DR	Frequency	Drink water/coffee/te	1	Drink water/coffee/te	0	Drink water/coffee/tea	1	
		6 I go to physiotherapist. Sometimes stiffness in body. My	N T	Social support (talking to fr	S	Frequency	Social support (talkin	24	Social support (talkin	15	Social support (talkin	9	
		7 Not much but I walk. Sometime I choose to walk to feel r	SM T			Frequency	Total	98	Total	49	Total	49	
		8 Nothing	N T			Frequency			Frequency		Frequency		
		9 Not really but I try taking uber ride so I am not too tired.	SM T			Frequency			Frequency		Frequency		
		10 I take medication. I regularly take co-renalic so my BP re	TI NT			Frequency			Frequency		Frequency		
		11 I wish I could	N NT			Frequency			Frequency		Frequency		
		12 I go to therapist once every 15th day. Physiotherapy is e	TI NT			Frequency			Frequency		Frequency		
		13 I take pain killer. With growing age, I feel more physical	TI NT			Frequency			Frequency		Frequency		
		14 I go out for a break. I know I can't do much. I told you I a	B NT			Teaching	Non-teaching	OVERALL		FEMALE		MALE	
		15 Nothing	N NT	Break (short break/walk, et	B	9	13	Proportion	Break (short break/wa	22%	Proportion	Break (short break/walk	20%
		16 Yes. I will talk to authorities, ensure I am heard and thins	S T	Nothing	S	17	11	Proportion	Nothing	29%	Proportion	Nothing	35%
		17 Nothing	N NT	Take immedicate measure	T	4	6	Proportion	Take immedicate me	10%	Proportion	Take immedicate meas	14%
		18 I am atic to tea so usually I take tea to reduce my stress.	DR NT	Self meditation (Yoga, exer	S	9	4	Proportion	Self meditation (Yoga	13%	Proportion	Self meditation (Yoga, e	10%
		19 Nothing	N T	Drink water/coffee/tea	O	1	1	Proportion	Drink water/coffee/te	1%	Proportion	Drink water/coffee/tea	2%
		20 I talk to my friends	S T	Social support (talking to fr	S	10	14	Proportion	Social support (talkin	24%	Proportion	Social support (talkin	18%
		21 Nothing	N NT	Total		49	49	Proportion	Total	100%	Proportion	Total	100%
		22 I take break	B NT	Grand Total Respondents		98		Proportion	Grand total	98	Proportion	Grand total	98
		23 I take pain killers	TI NT					Proportion	Male	male	Proportion	Male	male
		24 I have support from friends and family so I am never too	S NT					Proportion	10	12	Proportion	10	12
		25 Nothing	N T					Proportion	17	11	Proportion	17	11
U N I T E D K I N G D O M	MALE	26 We offer individual support. Recruitment department als	S T	Break (short break/walk, et	S	18%	27%	Break (short break/wa	10	12	Break (short break/walk	10	
		27 I read and do research work. Enaging myself in activities	SM NT	Nothing	SM	35%	22%	Nothing	7	3	Nothing	7	
		28 Avoid it. I involve myself in research work. Talk to other	S T	Take immedicate measure	S	8%	12%	Take immedicate me	5	8	Take immedicate meas	5	
		29 I go for walk	B NT	Self meditation (Yoga, exer	B	18%	8%	Self meditation (Yoga	1	0	Self meditation (Yoga, e	1	
		30 I take break. Try to not think about it much	B NT	Drink water/coffee/tea	B	0%	2%	Drink water/coffee/te	9	15	Drink water/coffee/tea	9	
		31 Sports. I involve myself in sporting activities	B NT	Social support (talking to fr	B	20%	29%	Social support (talkin	49	49	Social support (talkin	49	
		32 We talk to others. All in same boat. Structuring it to see	S NT	Total	S	100%	100%	Total	49	49	Total	49	
		33 I listen to music. This way I feel much more relaxed	SM NT					Grand total	98	98	Grand total	98	
		34 I am introvert. I don't talk too much, just my wife. I want	TI NT										
		35 Talk to others	S NT										
		36 Often I plan slots.	TI T										
		37 I do go out for walk or I talk by taking a break	B T										
		38 Take a short break	B T										
		39 Nothing	N NT										
		40 Sports	B NT										
		41 Weird thinking. I can't do much	N NT										
		42 Nothing	N T										
		43 I don't have stress in my dictionary. It doesn't affect me	N NT										
		44 Talking to friends for advices. Discussion with colleague	S T										
		45 You can chat with colleagues. Stress release due to soci	S T										
		46 I go for a walk. I feel less stress due to walk. Some fresh	B T										
		47 Nothing	N NT										
		48 I try whatever I can to find right equation. Mostly I talk	S NT										
		49 Nothing	N T										
	P A K I S T A N	FEMAI	50 Yes, I complaint, I coordinate, negotiate , discuss with o	S NT		S							
		51 I discuss my issues with my close ones. Being social hel	S NT		S								
		52 Yoga and Gym. I do go for exercise to overcome	SM NT		SM								
		53 Nothing	N NT		N								
		54 Try to talk to my close one. It helps to be on track	S NT		S								
		55 I communicate with people to overcome it. If too much b	S NT		S								
		56 Nothing	N T		N								
		57 Yes, I talk to my friends, it helps me feel relaxed	S T		S								
		58 I try to busy myself so I don't think too much. The pesin	SM T		SM								
		59 Nothing but I do request to not shuffle my classes	S T		S								
		60 Try to engage myself in some social activities.	S T		S								
		61 I walk, talk, do something to divert my attention. This is	B T		B								
		62 I go for walk. It releases my stress	B T		B								
		63 Nothing	N T		N								
		64 Try to focus on positive side. I do Yoga	SM T		SM								
		65 I use pain killers	TI NT		TI								
		66 Usually take break	B NT		B								
		67 Nothing	N NT		N								
		68 Nothing	N NT		N								
		69 The best way of getting out of my depression is talk to s	S T		S								
		70 I take rest. Proper rest helps me overcome these issues	B NT		B								
		71 Nothing	N T		N								
		72 I take breaks on regular interval	B NT		B								
		73 I take break from work.	B T		B								
U N I T E D K I N G D O M		FEMAI	74 Yes. Walking helps me but not too much. I will say walk	B NT		B							
		75 I try myself to manage my time	TI T		TI								
		76 Nothing	N T		N								
		77 Talk to somebody	S NT		S								
		78 I talk to my close ones. It just helps me	S T		S								
		79 I take meditation. I pray. Try to exercise	SM NT		SM								
		80 Talk to someone. Some advices to listen	S NT		S								
		81 Regular breaks. Once you go home don't think about it	B T		B								
		82 I take break. I have backache issue	B NT		B								
		83 I try to ignore. Overthinking will not help me	SM T		SM								
		84 Nothing	N T		N								
		85 Its compromise. You can't do much	N T		N								
		86 I have lately started taking medicine. I see Dr.GP. I have	TI NT		TI								
		87 Nothing	N T		N								
		88 I talked to my colleagues. It usually helps	S NT		S								
		89 Personally I do all to keep stable mind. I don't have colle	SM T		SM								
		90 We have good relationship with colleagues. I am not de	S NT		S								
		91 I try to do some sports. Busy myself in some activity	SM T		SM								
		92 Family support is all I have. Nothing from here. I talk to r	S NT		S								
		93 I have sporting background. Sometimes I go fo run,gym.	SM T		SM								
		94 Nothing	N T		N								
		95 Take a break	B NT		B								
		96 We do request break	B NT		B								
		97 Sometimes I take break	B NT		B								
		98 I talk to others	S NT		S								

		What effect does it have on your efficiency?				OVERALL			FEMALE		MALE	
	Responses	Themes	Letter code	Statistic	Frequency	Statistic	Frequency	Statistic	Frequency			
P A K I S T A N	1 I am disappointed but my efficiency doesn't reduce	B T	Negative Behaviour	B								
	2 I feel de-motivated	B T	Negative Psycholo	PS								
	3 I feel anxious	PS T	Negative Psycholo	P								
	4 My health disturbs	P T	Nothing	N								
	5 I feel low, depressed	PS T										
	6 My health is disturbed. I have backage due to too much driving	P T										
	7 I feel fatigue	PS T										
	8 I feel stressed. Efficiency reduce	B T										
	9 Fatigue and tiredness develop. I feel my efficiency reduce	PS T										
	10 My health affects. My efficiency is low as my BP rises	P NT										
	11 Goes down. I have frustration	PS NT										
	12 Very bad effect. Health is going down	P NT										
	13 Tires me too much	P NT	Negative Behaviour	B	12							
	14 I feel annoyed. Sometimes my health disturbs	B NT	Negative Psycholo	B	10							
	15 I have physical pain. My body aches so my efficiency reduce a bit	B NT	Negative Psycholo	4	16	Negative Behavioural impact	23%	Negative Behavioural impact	27%	Negative Behavioural impact	31%	
	16 Sometimes I am annoyed. I feel I can't change. My motivation reduces	B T	Nothing	3	11	Negative Psychological impa	37%	Negative Psychological impa	47%	Negative Psychological impact	27%	
	17 Efficiency is fine. Just my health goes disturb	N NT	Total	49	49	Negative Physiological impac	20%	Negative Physiological impac	12%	Negative Physiological impact	23%	
	18 My health disturbs. I feel low	B NT	Grand Total Res	38		Nothing	14%	Nothing	14%	Nothing	14%	
	19 Emotional disbalance at times	PS T				Total	***	Total	***	Total	100%	
	20 Feel irritation. Mood swings	PS T										
	21 Physically stressed out	B NT										
22 I would say I avoid others	P NT											
23 Physical pain affects my efficiency	B NT	Negative Behaviour	33%	24%								
24 Nothing ever happens to my efficiency	N NT	Negative Psycholo	53%	20%	Negative Behavioural impact	15	13	Negative Psychological impa	13	23		
25 I do feel bad. I sometime misbehave with others and later I apologize for	B T	Negative Psycholo	8%	33%	Negative Physiological impac	14	6	Nothing	7	7		
26 I feel de-motivation when students don't improve. When they admit rat	B T	Nothing	6%	22%	Total	49	49	Grand total	98			
27 I can manage very well. No effect on my efficiency	N NT	Total	100%	100%								
28 De-motivation. I feel my efficiency is reducing because of politics and m	B T											
29 Nothing. I can manage it all	N NT											
30 At times, my mood is off. I don't like anything. I go into my own world.	B NT											
31 Nothing	N NT											
32 De-motivation. When there is no growth. Motivation gets very low.	B NT											
33 Efficiency reduce. I feel my body is not well. There is pain and headache	P NT											
34 Efficiency not really. It put you to more pressure and I am capable of ha	N T											
35 I am fine but just at times I feel my muscles are jam. Body stiffness	P NT											
36 It does. If I have my eye 20% on screen and 80% hard copies. Eyes need	P T											
37 Yes, to some extent. I start worrying about it	B T											
38 Yes, If I can't read English of poor structure I feel agitated	PS T											
39 Tired. Feel body stiffness	P NT											
40 De-motivation	B NT											
41 Yes, most of the times I have headache and body related issues	P NT											
42 I feel depression	PS T											
43 I decide how an exams to do. I don't have stress in my dictionary so it do	N NT											
44 Does affect physically as well as mentally but mostly its mental depress	PS T											
45 It doesn't but fact is that too large extent its same so bit boring. in long r	B T											
46 Slightly stressful. Anxiety	PS T											
47 Aching pain in my body	P NT											
48 It certainly does, especially when systems doesn't work. I often feel angry	B NT											
49 Its depressing	PS T											
50 I feel pressure. This is when I make mistakes	B NT											
51 Efficiency comes down. I have disturb sleep pattern. My mood is affecte	PS NT											
52 Efficiency negatively affected. I feel depression	PS NT											
53 I have irritation. Sometimes I am moody	PS NT											
54 De-motivates me	B NT											
55 Efficiency doesn't reduce as now I have years of experience to handle it	N NT											
56 Efficiency reduce as I start feeling bored	PS T											
57 Fractionally reduce my efficiency	B T											
58 Yes, I at times got very very disappointed	B T											
59 I think efficiency declines. My mind is disturb	PS T											
60 My energy reduces. I feel bored	PS T											
61 Sometimes I have mood swings, if things do not go my way	B T											
62 Not much but psychological aspects some how disturbs	PS T											
63 I have psychological depression. I feel stress negatively affects me	PS T											
64 Feel like behavioural and personal distraction	B T											
65 Yes, I get tired. Physically stressed	P NT											
66 I sometimes want to relax so I avoid others	B NT											
67 I worry a lot. I go into my own shell	PS NT											
68 Nothing	N NT											
69 I have depression	PS T											
70 Body needs rest. My body doesn't get rest. I have backache issue	P NT											
71 Nothing	N T											
72 I have aches. Headache and pain in body	P NT											
73 I constantly worry	PS T											
74 If those changes take place, my efficiency will reduce. I am on medicatio	P NT											
75 Yes, I get upset. Become moody	PS T											
76 I have apatition. Feel low	PS T											
77 Nothing	N NT											
78 It does. I have disturbed sleep	B T											
79 It depends more workload gives me more stress. I have body stiffness usual	B NT											
80 Yes, de-motivation. I want to stay away from others for while due to it.	PS NT											
81 Efficiency reduces. At times it gets into depression	PS NT											
82 Over workload creates anxiety. I become moody	PS NT											
83 It affects my mood	PS T											
84 Stress. I can't concentrate	PS T											
85 De-motivated. At times pessimistic thoughts occur	PS T											
86 All the time feel worrying about things	PS NT											
87 Nothing	N T											
88 Few times but I know how to control. Skill sometimes I worry	PS NT											
89 Sometimes it becomes demotivating	B T											
90 Nothing. I am a professional.	N NT											
91 I feel anxiety	PS T											
92 Not much but just sometimes I have disturbed diet	B NT											
93 Body aching	P T											
94 I usually drink and smoke when I am stressed due to work	B T											
95 Yes, efficiency affects. Its mostly fatigue	PS NT											
96 I do feel fatigue but its more giving me physical pain. Especially uain key	P NT											
97 At times, more frustration	B NT											
98 I don't think it affects my efficiency. Nothing happens due to it	N NT											

Is there any representation of professional occupational therapist at your university?						OVERALL	FEMALE	MALE			
Responses	Themes	Letter code	Statistic	Statistic	Statistic	Frequency	Frequency	Frequency			
						Overall	Female	Male			
MALE	1 Very little	S T	Yes	Y		Yes	28	Yes	14	Yes	14
	2 No	N T	To some	S		To some extent	34	To some extent	16	To some extent	18
	3 No	N T	No	N		No	24	No	10	No	14
	4 No	N T	Not sure	NS		Not sure	12	Not sure	9	Not sure	3
	5 To little extent	S T				Total	98	Total	49	Total	49
	6 Not directly but yes	Y T									
	7 Little bit	S T									
	8 Not much	S T									
	9 Just little	S T									
	10 No	N NT									
	11 No	N NT									
	12 Yes	Y NT	Teaching on-teaching								
	13 Yes	Y NT	Yes	14	14						
	14 I wish there was	N NT	To some	18	16	OVERALL	Proportion	FEMALE	Proportion	MALE	Proportion
	15 Yes	Y NT	No	11	13	Yes	29%	Yes	29%	Yes	29%
	16 Yes	Y T	Not sure	6	6	To some extent	35%	To some extent	33%	To some extent	37%
	17 Yes	Y NT	Total	49	49	No	24%	No	20%	No	29%
	18 Yes, to some level	S NT	Grand Tot	98		Not sure	12%	Not sure	18%	Not sure	6%
	19 No	N T				Total	100%	Total	100%	Total	100%
	20 No	N T									
	21 Very little	S NT	Teaching on-teaching					Male	Female		
	22 Too limited	S NT	Yes	29%	29%	Yes		14	14		
	23 Not sure	NS NT	To some	37%	33%	To some extent		18	16		
	24 Not sure	NS NT	No	22%	27%	No		14	10		
	25 No. We do not have such	N T	Not sure	12%	12%	Not sure		3	9		
MALE	26 Not as far I know	N T	Total	100%	100%	Total		49	49		
	27 Very low	S NT				Grand total		98			
	28 Yes, we have healthcare at	Y T									
	29 Not that I am aware of	N NT									
	30 There is representation an	Y T									
	31 No but to some extent I gu	S NT									
	32 There is everything	Y NT									
	33 Not much	N NT									
	34 Yes, no idea if its effective	Y T									
	35 I heard but not taken. No i	Y NT									
	36 Yes. To some extent	S T									
	37 Yes	Y T									
	38 Yes to some extent. I have	S T									
	39 Yes, very low	S NT									
	40 No	N NT									
	41 Yes, somewhat	S NT									
	42 Yes, very little	S T									
	43 Yes, if anyone need it, the	Y NT									
	44 You can say yes, when yo	N T									
	45 Yes, Health and welbeing	Y T									
	46 Yes, to some level. There i	S T									
	47 Not sure	NS NT									
	48 Yes, everyone knows about	S NT									
	49 To little extent	S T									
FEMALE	50 Very low	S NT									
	51 Yes	Y NT									
	52 Yes	Y NT									
	53 Yes but very little	S NT									
	54 Very small representation	S NT									
	55 Very rare	S NT									
	56 No	N T									
	57 Yes	Y T									
	58 Yes	Y T									
	59 Very low	S T									
	60 Not much	S T									
	61 Yes	Y T									
	62 Very little	S T									
	63 No	N T									
	64 No	N T									
	65 No	N NT									
	66 No	N NT									
	67 No	N NT									
	68 No	N NT									
	69 Very low	S T									
	70 No	N NT									
	71 Quite low	S T									
	72 No	N NT									
	73 Very little	S T									
FEMALE	74 I do not think there is one.	NS NT									
	75 Yes. some extent	S T									
	76 Not sure	NS T									
	77 Yes, to some extent	S NT									
	78 Not that I am aware of	NS T									
	79 Yes, we do have but before	S NT									
	80 Not really	N NT									
	81 No idea but very low.	NS T									
	82 Yes	Y NT									
	83 Yes. I don't know I hadn't	Y T									
	84 Yes, largely present but I	Y T									
	85 Sometimes, we should use	S T									
	86 They say they have it. Las	S NT									
	87 Not that is known to me	NS T									
	88 Yes, we have senate hous	Y NT									
	89 Not aware of that	NS T									
	90 Not really sure if they hav	NS NT									
	91 I don't know. I never heard	NS T									
	92 Yes, we have health and w	S NT									
	93 I believe it is but somewha	Y T									
	94 Yes, very visible	Y T									
	95 Yes, support is there	Y NT									
	96 I think they do have but y	NS NT									
	97 Yes	Y NT									
	98 Yes, I think this is very vis	Y NT									

		Do you think professional occupational therapist at organization is effective, If so how Much? If not why?												
	Responses	Themes	Letter code	OVERALL		FEMALE		MALE						
				Statistic	Frequency	Statistic	Frequency	Statistic	Frequency					
P A K I S T A N	MALE	1 Yes, large extent	L T	To large	L	To large extent	28	To large extent	18	To large extent	10			
	2 Can be. I have no idea	NS T	To some	S	To some extent	26	To some extent	16	To some extent	10				
	3 Could be. Not sure	NS T	Not sure	NS	Not sure	28	Not sure	12	Not sure	16				
	4 Not sure	NS T	Not at al	N	Not at all	16	Not at all	3	Not at all	13				
	5 No	N T			Total	98	Total	49	Total	49				
	6 Not much. It depends on personal capab	N T												
	7 Could be but not sure. Well it can be go	S T												
	8 Could be. No idea	N T												
	9 Yes, helps you in dealing with workplace	L T												
	10 No idea	NS NT												
	11 Not sure	NS NT												
	12 To large extent. When I use it I feel relax	L NT	Teaching	Non-teaching	OVERALL		FEMALE		MALE					
	13 No. If it was, I wouldn't used pills. They	N NT	To large	15 13	Proportion		Proportion		Proportion					
	14 May be it could be effective. Some may f	S NT	To some	15 11	To large extent	29%	To large extent	37%	To large extent	20%				
	15 A very little but not much because I think	S NT	Not sure	13 15	To some extent	27%	To some extent	33%	To some extent	20%				
	16 Not just effective but very essential to h	S T	Not at al	6 10	Not sure	29%	Not sure	24%	Not sure	33%				
	17 No. its personal ability to overcome your	N NT	Total	49 49	Not at all	16%	Not sure	6%	Not at all	27%				
	18 Yes. You see it helps in ventilation. Very	L NT	Grand Tot	98	Total	100%	Not at all	100%	Total	100%				
	19 Not sure	NS T					Total		Total					
	20 Not sure	NS T												
	21 Not sure	NS NT												
	22 Not sure	NS NT	Teaching	Non-teaching										
	23 Not sure	NS NT	To large	31% 27%			Male	Female						
	24 Not sure	NS NT	To some	31% 22%			To large extent	10 18						
25 No. I don't think these are effective becau	N T	Not sure	27% 31%			To some extent	10 16							
26 Absolutely, it could be very effective. So	L T	Not at al	12% 20%			Not sure	16 12							
27 Yes. It helps to large extent.	L NT	Total	100% 100%			Not at all	13 3							
28 I have not used but it could be effective.	NS T					Total	49 49							
29 Like I said I hadn't used but I think it cou	S NT					Grand total	98							
30 Yes. Very very useful and effective	L T													
31 No. Not at all	N NT													
32 Yes, but depend on person. People strugg	S NT													
33 No. I don't think it can be effective at all	N NT													
34 In order to be effective, it has to be comm	N T													
35 I never used so I am not sure	NS NT													
36 It doesn't have to be. I don't need it. I an	S T													
37 It helps in dealing with the cases of anxi	L T													
38 I don't know	NS T													
39 Never used it but yes it could be useful t	S NT													
40 Not sure if it will make any difference	NS NT													
41 No, it just there but not helping me. May	N NT													
42 I think for academics it is effective but ad	L T													
43 I don't think these occupational therapist	N NT													
44 At this age, what can they tell us? I have	N T													
45 I haven't been there but I believe it is use	S T													
46 It's Ok. Low but for time being it should t	S T													
47 No, they can't share your burden and list	N NT													
48 Its very effective, I have taken myself an	L NT													
49 Not sure	NS T													
U N I T E D K I N G D O M	FEMALE	50 Yes. Professional will listen and submit re	L NT											
	51 Yes to some level. It can help in the redu	L NT												
	52 Yes, definitely. The support really helps	L NT												
	53 Yes. It helps in keeping the focus	L NT												
	54 Not in direct way but it depends on indiv	S NT												
	55 Yes, every organization should invest in	L NT												
	56 No idea	NS T												
	57 Yes, sometimes. It helps in reducing stre	S T												
	58 Yes. Obviously, the stress at job with de	L T												
	59 To some extent. It much bring positive d	S T												
	60 Yes, it will be good to have therapy and	L T												
	61 No idea but possible it will improve indiv	S T												
	62 No idea. Not sure	NS T												
	63 Not sure	NS T												
	64 Certainly can be effective. Professionals	L T												
	65 Not sure	NS NT												
	66 To some extent it could be effective	S NT												
	67 Not sure	NS NT												
	68 Not sure	NS NT												
	69 To some extent	S T												
	70 Not sure	NS NT												
	71 Yes, its somewhat effective	S T												
	72 No	N NT												
	73 To some extent	S T												
P A K I S T A N	FEMALE	74 I think it will help. At least to some exten	S NT											
	75 No idea here but I have used it previousl	S T												
	76 No idea. Not sure if it can help or not	NS T												
	77 No. It is not effective at all	N NT												
	78 No idea	NS T												
	79 No. I try myself. It's a personal thing. How	N NT												
	80 Possible but no sure if its very effective	NS NT												
	81 Yes. Absolutely. I heard telephonic cour	L T												
	82 Yes, it will help because its very effective	L NT												
	83 Yes, I have used in another institution ar	L T												
	84 I believe to some extent. I find it effectiv	S T												
	85 I myself don't need it. I see other in pres	S T												
	86 At least it helps in releasing stress. Talk	S NT												
	87 I guess so. It can help people with tempo	L T												
	88 Yes. It helps you to be in the right state	L NT												
	89 if available they would be helpful in reso	L T												
	90 I believe so. It's nice to know someone is	L NT												
	91 Yes, psychologist really support me. I an	L T												
	92 It could be effective to some level but I h	NS NT												
	93 It is to some extent	S T												
	94 Yes highly effective. I got immediate solu	L T												
	95 Yes, I assume as a whole it help keeps yo	L NT												
	96 No idea	NS NT												
	97 I believe so to some extent	S NT												
98 Yes, to some extent in some matters	S NT													

		Are you aware of Social Support at workplace? Share what it is according to you? Do you have it here? Have you used it? Is it effective?																
		Responses					Themes		Letter code		OVERALL		FEMALE		MALE			
											Statistic		Statistic		Statistic			
											Frequency		Frequency		Frequency			
P A K I S T A N	MALE	1	Yes, Healthy, well environment. All look after eachother. Yes. Yes. When there is need from others. Even co	VE	T	Very Effective	VE	T	Very Effective	VE	T	Very Effective	27	Very Effective	14	Very Effective	13	
		2	Yes. Environment of support from all emotional support from people. Yes. Yes. When I need help I talk to ad	E	T	Effective	E	T	Effective	E	T	Effective	49	Effective	21	Effective	28	
		3	Yes. Support from all inside university. Yes. Yes. Not very effective. Not much	I	T	Not sure	N	Yes. Not very effective. Not much	I	T	Not sure	N	Not sure	7	Not sure	6	Not sure	1
		4	Yes. Cared by others. Yes. Yes. I found it constructive. Yes	E	T	Ineffective	I	Not sure	I	T	Not sure	N	Not sure	10	Ineffective	4	Ineffective	6
		5	Yes. Social orientation and support to improve well-being. Yes. Yes. When I am unable to come I do get sup	E	T	Very Ineffective	IE	Not sure	I	T	Not sure	N	Not sure	5	Very Ineffect	4	Very Inef	1
		6	Yes. Engagement with workplace and people around you. Yes. I do participate in social gatherings/events. C	E	T		E	T		E	T							
		7	Yes. Sometimes. When I feel I need a support I reach out and I find people around me gives me helping han	E	T		E	T		E	T							
		8	Yes. Support to us from institution. Yes. Yes. When I am not able to come. Someone covers it on my behalf.	E	T		E	T		E	T							
		9	Yes. Supportive environment. Yes. Yes. When there is any serious emergency I cannot be available to cond	E	T		E	T		E	T							
		10	Yes. Social orientation at workplace to ensure you are comfortable. Yes. Yes. We are like family. We contin	E	NT		E	NT		E	NT							
		11	Yes. Healthy relation and work itself. Yes but not for us. There is not much. Yes but not too effective. I have	I	NT		I	NT		I	NT							
		12	Yes. Social being. Yes. Yes. I find it very useful. I ask for help, someone is there to support me. Yes	E	NT		E	NT		E	NT							
		13	Yes. Everyone caring about others. Yes. Yes. Very good. Yes	VE	NT	Very Effective	18	9	Proportion									
		14	Yes. Some support to help you overcome the obstacles. Any person/setup/ etc.No. Not for junior staff. For	VE	NT	Very Effective	23	26	Very Effective	28%								
		15	Yes. Caring environment. Yes. Sometimes. There are many occasions, especially when there is annual days.	E	NT	Effective	3	4	Effective	50%								
		16	Yes. Social being at work making life and work easy. Yes. Yes. The department is not made of buildings. It's	VE	T	Ineffective	3	7	Not sure	7%								
		17	Yes. Environment of support from all to all. Yes. At times. All use it when anything happens. There are othe	I	NT	Very Ineffective	2	3	Ineffective	10%								
		18	Yes. Perception of organization taking care of your social wellbeing. Yes. Yes. I find it vital and support suc	VE	NT	Total	49	49	Very Ineffect	5%								
		19	Yes but can't explain. Yes I have used. It is present here and its good experience. Very useful.	VE	T	Grand Total Respc	98		Total	100%								
		20	Yeah. Yes I often us it. It is informally available. There are many occasions. Its effective	E	T		E	T		E	T							
		21	Friendly and supportive environment. Yes we have and we all use it. Very effective	E	NT		E	NT		E	NT							
		22	It is very visible. We all support eachother. Yes we have. I do use. Its effective	E	NT		E	NT		E	NT							
		23	Yes. It is available. Its effective	E	NT	Very Effective	37%	18%										
		24	Yes. All resources available to help us. Indeed its available. I am using it frequently. Its effective	E	NT	Effective	47%	53%										
		25	Yes. I know. It's all different types of support at workplace. Yes. I find it effective	E	T	Not sure	6%	8%										
26	Not sure how to define it. Well, its not offered officially but we to help each other. Environment is very colla	E	T	Ineffective	6%	14%												
27	Yes. Helping eachother at work. Yes. I have used it and it is effective. Not very effective but effective. Yes it	E	NT	Very Ineffective	4%	6%												
28	Yes. I am familiar with it. There is technical support formally and peer support informally. Yes. It is very usef	VE	T	Total	100%	100%												
29	Yes. I know. Yes I have used it. Not officially we have but yes we help eachother. Its not of too much use no	I	NT		I	NT		I	NT									
30	Indeed I know. Your colleagues helping you. Supportive environment. It is very effective. When I was in the	VE	NT	Total	100%	100%												
31	Yes. I do know supportive environment. Not much visible. I have used somethings. Not usefud	I	NT		I	NT		I	NT									
32	Yes. Sense of team work in this office. Yes. It is always that someone is there. It allows me to relax. Effecti	E	NT		E	NT		E	NT									
33	We all help eachother. Yes. I do use it and I find it effective too.	E	NT		E	NT		E	NT									
34	In informal way it is present. It is fruitful too. I use it like I go and discuss my issues. We share our expene	E	T		E	T		E	T									
35	It's built in. Caring and healthy environment. If we ask them only then I get it. If I ask my colleagues to cover	E	NT		E	NT		E	NT									
36	Yes, supportive environment. Yes we do have it but informally. I never used formally but informally yes. Ver	VE	T		VE	T		VE	T									
37	Informal one. We have no system of mentoring but you get it if you ask asking for it. Yes, I have used it and	VE	T		VE	T		VE	T									
38	I know. Sometimes we use it. Yes friends are there. Yes I have consulted them when I need. Its good experie	E	T		E	T		E	T									
39	Yes, practically its difficult because everybody is involved in managing their own workload. Yes, it is here a	E	NT		E	NT		E	NT									
40	Yes, it exist. We have it here but No I hadn't used. I am not sure it will be effective.	VE	NT		VE	NT		VE	NT									
41	Yes, I know we have support system for all. We care about eachother. Yes, I do use it frequently. We cover	VE	NT		VE	NT		VE	NT									
42	Yes, creative team to support one another. Yes, I use it very often in informal way and I have very good exp	VE	T		VE	T		VE	T									
43	Yes, all types of support at workplace. It's all back to HR. I never use it and I don't find it usefud	I	NT		I	NT		I	NT									
44	All is there when you need. Obviously colleagues can't share workload. No, its not formally present. Colleg	E	T		E	T		E	T									
45	Yes, there is technical support. Issues with HR then there is support. Yes, I use it informally. Yes, its effecti	E	T		E	T		E	T									
46	Physical, technical, and people support at desk. Yes, we informally have and I do use it. I find it effective fo	E	T		E	T		E	T									
47	I have idea. Supporting eachother. Yes, informally I did. It was good experience. Yes, effective	E	NT		E	NT		E	NT									
48	Yes, our office is good at it. Very open to support if someone need anything. Effective	E	NT		E	NT		E	NT									
49	Yes informally I do use it. Its very effective	VE	T		VE	T		VE	T									
P A K I S T A N	FEMALE	50	Yes. All types of support for employees so they can contribute towards finding a neutral solution. Yes. Yes	VE	NT		VE	NT		VE	NT		VE	NT		VE	NT	
		51	Yes. Help and support from university. Yes. Yes. It was excellent. Everyone helps you. You don't feel alone	VE	NT		VE	NT		VE	NT		VE	NT		VE	NT	
		52	Yes. I can't define but I have idea. Social, technological, emotional etc support from authorities to ensure yo	VE	T		VE	T		VE	T		VE	T		VE	T	
		53	I am. You don't feel alone. Everyone is there to stand by you. Yes. Sometimes. Lovely. Yes	E	NT		E	NT		E	NT		E	NT		E	NT	
		54	Obviously. I was busy last week due to my son's exams and could not make it to university but my colleagu	E	NT		E	NT		E	NT		E	NT		E	NT	
		55	Yes. Caring environment. Yes. Yes. Like I told you excessive burden so I ask usually Asfara, Yameen, and C	E	NT		E	NT		E	NT		E	NT		E	NT	
		56	Yes. Support at work. No, everyone is busy in their own. No. No. No	I	T		I	T		I	T		I	T		I	T	
		57	Yes. Workplace support from peers. Yes. Yes. Very effective. Everyone in this department helps eachother.	E	T		E	T		E	T		E	T		E	T	
		58	Yes. Humans are social animal. They keep interacting with others. Yes. Yes. I found it very useful. Indeed a	VE	T		VE	T		VE	T		VE	T		VE	T	
		59	Not just heard I actively use it. I don't know how to explain it, Social being at department. Yes. Yes. Great. A	VE	T		VE	T		VE	T		VE	T		VE	T	
		60	Yes. Wellbeing through people around you. Yes. Yes. Everyone cares for others. When I am busy we chang	E	T		E	T		E	T		E	T		E	T	
		61	Yes. Peer-head-junior support. Yes. Yes. Found it useful. Yes	E	T		E	T		E	T		E	T		E	T	
		62	Yes. Support at workplace from social perspective. Yes. Very good experience. Yes. There has been a reason	VE	T		VE	T		VE	T		VE	T		VE	T	
		63	No. No idea. May be but I don't use such things. Never. Not sure	N	T		N	T		N	T		N	T		N	T	
		64	Indeed. Taking care of wellbeing of others. Yes. Yes. It was fantastic. We have social outings/ participative	VE	T		VE	T		VE	T		VE	T		VE	T	
		65	Yes, formally present. Its part of work. It's a culture of this university to help all at workplace. Its effective. I	E	NT		E	NT		E	NT		E	NT		E	NT	
		66	Yes. Its available and visible. I have used it very frequently. My experience is good. Yes, its very effective	VE	NT		VE	NT		VE	NT		VE	NT		VE	NT	
		67	Not sure. No idea if its present. Not sure about its usefulness.	N	NT		N	NT		N	NT		N	NT		N	NT	
		68	Yes, its good thing to have. Good experience. Its effective	E	NT		E	NT		E	NT		E	NT		E	NT	
		69	Yes I know about it. All types of assistance inside department. Yes, I have used. Good experience. Very effe	VE	T		VE	T		VE	T		VE	T		VE	T	
		70	Not sure. No idea. Never used. No idea.	N	T		N	T		N	T		N	T		N	T	
		71	Ofcourse I know. We do have it here. Everyone work as one family. We look after eachother. Yes, I have use	VE	T		VE	T		VE	T		VE	T		VE	T	
		72	No such things at all. No, its not here. I have never received any help from others. Its very useless. People	I	NT		I	NT		I	NT		I	NT		I	NT	
		73	I do know. Collaborating in work. Yes, I have used it. Its good experience. Very effective	VE	T		VE	T		VE	T		VE	T		VE	T	
		74	Yes there are some really nice people here. All help eachother. I can only speak for my team. Yes, it is here a	E	NT		E	NT		E	NT		E	NT		E	NT	
75	Yes. Every type of support. Yes I have used it and I had good experience. It is effective	E	T		E	T		E	T		E	T		E	T			
76	Yes, informally social support is available. Its good. I would say effective	E	T		E	T		E	T		E	T		E	T			
77	Yes. I have used it at times. Very useful	VE	NT		VE	NT		VE	NT		VE	NT		VE	NT			
78	Yes, its available. No, it doesn't help. No one has time to help you. Not of any use	I	T		I	T		I	T		I	T		I	T			
79	Yes. We are using it. Useful when we have overload only then we use	E	NT		E	NT		E	NT		E	NT		E	NT			
80	Different department helps you. Yes, we have but No I never used it on day-to-day basis but sometime whe	E	NT		E	NT		E	NT		E	NT		E	NT			
81	Yes, support from others around you. A lot of having opportunities, workshops to solve. Yes, its effective	E	T		E	T		E	T		E	T		E	T			
82	Yes, learning and helping environment. Yes, it is definitely effective	E	NT		E	NT		E	NT		E	NT		E	NT			
83	Yes, its environment of cooperation. Informally Yes I have used. One I can't come for exams so asked collea	VE	T		VE	T		VE	T		VE	T		VE	T			
84	Yes, healthy environment where all cares for all. Yes it is present. Not really I used but I think it can be misa	I	T		I	T		I	T		I	T		I	T			
85	Social care and belongingness. Informally yes its there but I never used. I don't think I know the answer to	N	T		N	T		N	T		N	T		N	T			
86	No we don't have it but I have good time management. I do talk to other but everyone has over workload. Its	IE	NT		IE	NT		IE	NT		IE	NT		IE	NT			
87	Yes, its transparent but I never use because it's not effective	I	T		I	T		I	T		I	T		I	T			
88	Yes, supportive people. My team is supportive. I do use and its good experience. Useful	E	NT		E	NT		E	NT		E	NT		E	NT			
89	No idea. Not sure. The only thing I used was continuous development program but nothing else	N	T		N	T		N	T		N	T		N	T			
90	There is always informal channel. I don't think so it helps. Not really effective	I	NT		I	NT		I	NT		I	NT		I	NT			
91	Yes, very effective. I do use and encourage such support at workplace	VE	T		VE	T		VE	T		VE	T		VE	T			
92	Informally present. I never used because I had previously used in another organisation, its of not effective	I	NT		I	NT		I	NT		I	NT		I	NT			
93	Yes, like in my department we have good supporting environment and work relationship. Its useful and all th	E	T		E	T		E	T		E	T		E	T			
94	Yes, its there but I don't find anyone saying its ineffective at all																	

Have you gained any emotional or moral support through social support?				OVERALL			FEMALE		MALE	
Responses	Themes		Letter code	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	
MALE	1 Emotional	E T	Moral support	M	Moral support	35	Moral support	12	Moral support	23
	2 Emotional	E T	Emotional support	E	Emotional support	26	Emotional support	20	Emotional support	6
	3 Only moral support	M T	Emotional as well as moral	B	Emotional as well as moral	21	Emotional as well as moral	9	Emotional as well as moral	12
	4 Moral support	M T	No support at all	N	No support at all	16	No support at all	8	No support at all	8
	5 Emotional support	E T								
	6 Moral support	M T			Total	98	Total	49	Total	49
	7 Moral support	M T								
	8 Moral	M T								
	9 Both. But most commonly emotional support	B T								
	10 Moral support	M T								
	11 Moral only	M NT								
	12 Moral support	M NT								
	13 Moral support	M NT								
	14 Yes, I have gained moral support	M NT	Emotional support	18	9	Moral support	36%	Proportion		Proportion
	15 Moral support	M NT	Emotional as well as moral	8	13	Emotional support	27%	Moral support	24%	Moral support
	16 Emotional and moral both. Emotional higher	B T	No support at all	9	7	Emotional as well as moral	21%	Emotional support	41%	Emotional support
	17 Emotional as well as moral but moral is higher	B NT	Total	49	49	No support at all	16%	Emotional as well as moral	18%	Emotional as well as moral
	18 Both but if I have to choose one then moral	B NT	Grand Total Response	98		Total	100%	No support at all	16%	No support at all
	19 Moral	M T						Total	100%	Total
	20 Both moral and emotional support	B T								
	21 Moral most of the time	M NT								
	22 Moral	M NT								
	23 Emotional	E NT	Moral support	29%	41%			Male	Female	
	24 Moral	M NT	Emotional support	37%	18%			Moral support	23	12
	25 Moral support	M NT	Emotional as well as moral	16%	27%			Emotional support	6	20
	26 Both but moral is higher	B T	No support at all	18%	14%			Emotional as well as moral	12	9
	27 Moral	M NT	Total	100%	100%			No support at all	8	8
	28 There is no such policies but we have social support	E T						Total	49	49
	29 No	N NT						Grand total	98	
	30 Moral and emotional support together	B T								
	31 Nothing	N NT								
	32 Both. Long time working here because of support	B NT								
	33 Combination of both	B NT								
	34 More Moral support	N T								
	35 I don't ask. No support at all	N NT								
	36 I don't ask. No support at all	B T								
	37 Main support is with technological support	N T								
	38 Not really any support	N T								
	39 Moral	M NT								
	40 Both	B NT								
	41 Moral support	M NT								
	42 Moral support	M T								
	43 Not at all I don't get any	N NT								
	44 None of them from colleagues. Who are in my department	N T								
	45 Emotional and Moral both. The line between them is blurred	B T								
	46 Sometimes emotional support	E T								
	47 Moral and only moral	M NT								
	48 Both	B NT								
	49 Moral	M T								
	50 Moral support	M NT								
	51 Emotional more than the moral support	E NT								
	52 Moral support	M NT								
	53 Emotional support	E NT								
	54 Both but mostly emotional	B NT								
	55 Emotional support definitely	E NT								
	56 Only moral support could but I would so	N T								
	57 I usually get emotional support from such	E T								
	58 Both. Emotional support more	B T								
	59 Emotional support	E T								
	60 Emotional	E T								
	61 Moral support	M T								
	62 Emotional	E T								
	63 Moral only	M T								
	64 Emotional support	E T								
	65 Emotional	E NT								
	66 Both	B NT								
	67 Nothing	N NT								
	68 Moral	M NT								
	69 Emotional support	E T								
	70 Moral	M NT								
	71 Both	B T								
	72 Nothing	N NT								
	73 Emotional support	E T								
	74 Emotional support	E NT								
	75 Emotional	E T								
	76 Emotional	E T								
	77 Moral support	M NT								
	78 No support	N T								
	79 From my team moral support	M NT								
	80 Emotional support from my team. Not sure	E NT								
	81 Moral not at all. Just emotional support at	E T								
	82 Moral support	M NT								
	83 Moral support	M T								
	84 Emotional support	E T								
	85 I just talk feeling. No support at all	N T								
	86 Yes, I have comfort and received emotion	E NT								
	87 Not needed. There is no support	N T								
	88 Yes, both of them. Depends on situation	B NT								
	89 Not at all. I think organisation doesn't care	N T								
	90 Sometimes moral. I don't think academics	M NT								
	91 Sometimes moral too but usually its moral	E T								
	92 Not at all. Never needed one. I don't think	N NT								
	93 Moral support	M T								
	94 Emotional support	E T								
	95 Both	B NT								
	96 Both	B NT								
	97 Both	B NT								
	98 Both	B NT								

		What do you think about organizational problem that you may be facing or had faced before? If you may please explain a little more?									
Gender	Responses	Themes		Letter code		OVERALL	FEMALE		MALE		
		Statistic	Frequency	Statistic	Frequency	Statistic	Frequency	Statistic	Frequency		
P A K I S T A N	1 My biggest concern. I ensure it is resolved	P	T	My biggest priority/ch	P						
	2 I feel annoyed. I feel my head is pounding hard	A	T	No opinion	N						
	3 I love challenges. I do better. I view them as a target and resolve	P	T	Additional burden/ a	A						
	4 I feel it my own problem. I would do my best to overcome it	P	T	My concern only if dir	C						
	5 Biggest concern. I take active participation to resolve it	P	T	Not sure	U						
	6 Very important. I see them as my own problem because it is affe	C	T								
	7 My biggest concern. I feel unrest if there is any such issues	P	T								
	8 I want it immediately resolved. When I see a problem I am at un	P	T								
	9 My duty to resolve it. I like such issues and do all to ensure we	P	T								
	10 A challenge. I welcome it and do my best to resolve it	P	NT								
	11 I see them as my own problems. If anything is not right. I ensure	P	NT								
	12 My actual problem. I must rectify it	P	NT								
	13 My own problem. I will do anything to solve it	P	NT	My biggest priority/ch	22	21	OVERALL	FEMALE		MALE	
	14 I see them as problem and want it solved	P	NT	No opinion	0	1	Proportion	Proportion	Proportion	Proportion	
	15 Extra burden. I have my own concerns and any extra burden fru	A	NT	Additional burden/ a	13	10	My biggest pr	44%	My biggest priority/	35%	My biggest priority
	16 Organizational problem is my problem. I try solving them. It is o	P	T	My concern only if dir	13	16	No opinion	1%	No opinion	2%	No opinion
	17 Requires immediate solution. If in my department, I will deal wit	C	NT	Not sure	1	1	Additional bu	23%	Additional burden/	31%	Additional burden
	18 Organizational problems are challenges and I like to take on cha	P	NT	Total	49	49	My concern o	30%	My concern only if d	31%	My concern only if
	19 Not sure. It is there to do will do it else if not then I won't	U	T	Grand Total Responden	98		Not sure	2%	Not sure	2%	Not sure
	20 My supreme priority. I will definitely try to overcome it	P	T				Total	100%	Total	100%	Total
	21 My most important task. I will ensure I do it in best possible ma	P	NT								
	22 Extra load. I won't say I will be happy to do it but not unhappy i	C	NT								
	23 My responsibility. I will do it on urgent basis	P	NT	Teaching							
	24 Simply a problem and do it properly	C	NT	Non-teaching							
	25 No second thought. Its priority and I will do all to resolve it	P	T	My biggest priority/ch	45%	43%	My biggest priority/		Male	Female	
26 My concern. I deal with it a lot and I make sure I do it right	P	T	No opinion	0%	2%	No opinion		0	1		
27 If it comes I will face it. No special concerns but I believe life s	C	NT	Additional burden/ a	27%	20%	Additional burden/		8	15		
28 I will solve it. I like such challenges which forces me to do more	P	T	My concern only if dir	27%	33%	My concern only if d		14	15		
29 I like challenges. I am up for it	P	NT	Not sure	2%	2%	Not sure		1	1		
30 If it is related to my work than I will look into it but not if it isn't	C	T	Total	100%	100%	Total		49	49		
31 Additional burden on me.	A	NT				Grand total		98			
32 If it concerns me I will. If I am require to do it	C	NT									
33 Additional Burden	A	NT									
34 It depends on time. If I am stressed. There is a lot on my table, y	A	T									
35 I will do it. Directly or indirectly it is my problem	P	NT									
36 Things can't be perfect. I convince my mind that you will come	P	T									
37 I will do it if it concerns me	C	T									
38 It's a burden	A	T									
39 I think you have to many organization responsibilities but this	C	NT									
40 It's a challenge	P	NT									
41 Additional headache	A	NT									
42 I enjoy and it helps me get better	P	T									
43 I don't have any problem with extra task. I will try to solve it.	C	NT									
44 I do it for myself. A challenge for me	P	T									
45 Things are never casting in stone. If there is new development	C	T									
46 Its challenge and I would like to do if related to my field	C	T									
47 A challenge for me and I am always up for it	C	NT									
48 Its difficult to measure but difficulty in process is burden. Its pr	A	NT									
49 If the problem is related to my area I will do all I can	C	T									
50 I feel solution required but sometimes I am annoyed. I do not w	C	NT									
51 I will solve and try but I Don't really enjoy when it is happenin	C	NT									
52 My immediate effort to solve it. I see them my priority. Will do a	P	NT									
53 All organizations are complex. There are problems but all could	P	NT									
54 I see them as problem and deal with it in a way to make best out	P	NT									
55 Additional headache. When you are usually burden with your	A	NT									
56 Annoys me. I get nervous. I simply don't like it	A	T									
57 I feel depressed when problems incur. It depresses me. I feel st	A	T									
58 Concern of organization. If it comes in my domain. I will work on	C	T									
59 I feel additional burden. I really feel depress when things go ou	A	T									
60 I feel irritated. I feel my blood circulation increase	A	T									
61 My biggest challenge. I am motivated to do something about it	P	T									
62 I will try immediately resolving it. I would like to ensure it is res	P	T									
63 I feel very annoyed. If any additional problems are imposed on	C	T									
64 I see them as problems and deal with them one by one. I think a	P	T									
65 Problem is a problem and you should resolve it, especially if it c	C	NT									
66 I regularly come across this situation. Sometimes I willingly do	C	NT									
67 I have no opinion. What can I say	N	NT									
68 Type of stress. I avoid such things	A	NT									
69 My concern. I will do all to solve it. Its my responsibility	P	T									
70 Additional stress. I don't like it at all	A	NT									
71 In my modules if there comes any problem, I do resolve it	C	T									
72 No idea. Not sure how do I feel often but its part of life. Probl	U	NT									
73 Sort of burden. I won't like to do it	A	T									
74 A challenge for me and I am always up for it	P	NT									
75 Extra pressure	A	T									
76 Very stressful. I will work if its compulsory	C	T									
77 It will be a challenge and I will do my best	P	NT									
78 It's a problem and I see it as extra load	A	T									
79 If it's in my area I will deal with it else I won't	C	NT									
80 Additional stress for me. I get stressed and feel over burdened	A	NT									
81 A challenge and I will do it	P	T									
82 It depends on what it is. We are all here for some work so if its	C	NT									
83 I will involve only if required. If its important else won't like it	C	T									
84 Additional burden	A	T									
85 I don't think we can do much. We can find another job. Extra lo	A	T									
86 I try to be positive and work out a way	P	NT									
87 Its extra burden	A	T									
88 A challenge. I like doing it	P	NT									
89 I have wide area. I am always open to challenges. I enjoy it	P	T									
90 I go with group. I will solve it for all	C	NT									
91 If its in my department and it touches me I will do it. I will accept it	C	T									
92 I just go to line manager and tell him to look at it. Why should I waste	C	NT									
93 Such things happen all the time. I most of the time stands for it. I don	P	T									
94 If its in my domain I will try resolving it	C	T									
95 We have a team leader. We go there	C	NT									
96 They are critical. You keep thinking about it. They do affect you. Its t	A	NT									
97 I will still take opportunity to learn even if its not in my area	P	NT									
98 I will do it. It depends on workload but I will do	P	NT									

	Responses	Themes	Letter code	OVERALL		FEMALE	MALE
				Statistic	Statistic	Statistic	Statistic
P A K I S T A N	1 My biggest concern. I ensure it is resolved	VH T	Very highly visible	VH	Frequency	Frequency	Frequency
	2 I feel annoyed. I feel my head is pounding hard	MV T	Moderately visible	MV	Very highly vi 32	Very highly visible 12	Very highly visible 20
	3 I love challenges. I do better. I view them as a target and resolve	VH T	Visible	V	Moderately v 19	Moderately visible 8	Moderately visible 11
	4 I feel it my own problem. I would do my best to overcome it	MV T	Neither visible not in	NN	Visible 14	Visible 6	Visible 8
	5 Biggest concern. I take active participation to resolve it	VH T	Invisible	I	Neither visib 3	Neither visible not i 2	Neither visible no 1
	6 Very important. I see them as my own problem because it is affe	VH T	Moderately invisible	MI	Invisible 9	Invisible 8	Invisible 1
	7 My biggest concern. I feel unrest if there is any such issues	VH T	Very highly invisible	VI	Moderately i 9	Moderately invisibl 5	Moderately invisit 4
	8 I want it immediately resolved. When I see a problem I am at un	V T			Very highly ir 12	Very highly invisibl 8	Very highly invisib 4
	9 My duty to resolve it. I take such issues and do all to ensure we	VH T					
	10 A challenge. I welcome it and do my best to resolve it	V NT					
	11 I see them as my own problems. If anything is not right. I ensur	MV NT					
	12 My actual problem. I must rectify it	MV NT		Teaching Non-teaching			
	13 My own problem. I will do anything to solve it	VH NT	Very highly visible		19 14		
	14 I see them as problem and want it solved	V NT	Moderately visible		9 10		
	15 Extra burden. I have my own concerns and any extra burden fru	VI NT	Visible		6 8		
	16 Organizational problem is my problem. I try solving them. It is o	MV T	Neither visible not in		1 2		
	17 Requires immediate solution. If in my department. I will deal wit	V NT	Invisible		6 3		
	18 Organizational problems are challenges and like to take on cha	VH NT	Moderately invisible		3 5		
	19 Not sure. It is there to do I will do it else if not then I won't	NN T	Very highly invisible		5 7		
	20 My supreme priority. I will definitely try to overcome it	VH T	Total		49 49		
	21 My most important task. I will ensure I do it in best possible ma	VH NT	Grand Total Responde		98		
	22 Extra load. I won't say I will be happy to do it but not unhappy	MV NT					
	23 My responsibility. I will do it on urgent basis	VH NT					
	24 Simply a problem and do it properly	MV NT					
	25 No second thought. Its priority and I will do all to resolve it	VH T					
26 I deal with it a lot and I make sure I do it right	VH T		Teaching Non-teaching				
27 If it comes I will face it. No special concerns	V NT	Very highly visible		39% 29%			
28 I will solve it. I like such challenges which forces me to do more	VH T	Moderately visible		18% 20%			
29 I like challenges. I am up for it	VH NT	Visible		12% 16%			
30 If it is related to my work than I will look into it but not if it isn't	MI T	Neither visible not in		2% 4%			
31 Additional burden on me.	VI NT	Invisible		12% 6%			
32 If it concerns me I will. If I am require to do it	MI NT	Moderately invisible		6% 10%			
33 Additional Burden	VI NT	Very highly invisible		10% 14%			
34 It depends on time. If I am stressed. There is a lot on my table. y	MV T	Total		100% 100%			
35 I will do it. Directly or indirectly it is my problem	V NT						
36 Things can't be perfect. I convince my mind that you will come	VH T						
37 I will do it if it concerns me	V T						
38 I wouldn't like to take extra load. Why always me?	I T						
39 I will somehow do it	MV NT						
40 I will surely do take it as my responsibility	VH NT						
41 I al already with too much workload. I feel extra pressure	MI NT						
42 I enjoy and it helps me get better	VH T						
43 I don't have any problem with extra task. I will try to solve it.	MV NT						
44 I do it for myself. Challenge for me	VH T						
45 Things are never casting in stone. If there is new development	V T						
46 Its challenge and I would like to do if related to my field	MV T						
47 It depends. I will do it if its in my area	MV NT						
48 Its difficult to measure but difficulty in process is burden. Its pr	MI NT						
49 If the problem is related to my area I will do all I can	MV T						
U N I T E D K I N G D O M	50 I feel solution required but sometimes I am annoyed. I do not w	I NT					
	51 I will solve and try but I Don't really enjoy when it is happening	MI NT					
	52 My immediate effort to solve it. I see them my priority. Will do a	MV NT					
	53 All organizations are complex. There are problems but all could	VH NT					
	54 I see them as problem and deal with it in a way to make best out	V NT					
	55 Additional headache. When you are usually burden with your v	VI NT					
	56 Annoys me. I get nervous. I simply don't like it	I T					
	57 I feel depressed when problems incur. It depresses me. I feel st	I T					
	58 Concern of organization.If it comes in my domain. I will work on	V T					
	59 I feel additional burden. I really feel depress when things go ou	I T					
	60 I feel irritated. I feel my blood circulation increase	MI T					
	61 My biggest challenge. I am motivated to do something about it	VH T					
	62 I will try immediately resolving it. I would like to ensure it is res	VH T					
	63 I feel very annoyed. If any additional problems are imposed on	MI T					
	64 I see them as problems and deal with them one by one. I think a	MV T					
	65 Problem is a problem and you should resolve it, especially if it c	MV NT					
	66 I regularly come across this situation. Sometimes I willingly do	MV NT					
	67 Not sure	NN NT					
	68 Type of stress. I avoid such things	MI NT					
	69 My concern. I will do all to solve it. Its my responsibility	VH T					
	70 Additional stress. I don't like it at all	VI NT					
	71 In my modules if there comes any problem, I do resolve it	V T					
	72 No idea. Not sure how do I feel often but its part of life. Proble	NN NT					
	73 Sort of burden. I won't like to do it	I T					
	P A K I S T A N	74 A challenge for me and I am always up for it	VH NT				
75 Extra pressure		VI T					
76 Very stressful. I will work if its compulsory		MV T					
77 It will be a challenge and I will do my best		VH NT					
78 It's a problem and I see it as extra load		VI T					
79 If it's in my area I will deal with it else I won't		VI NT					
80 Additional stress for me. I get stressed and feel over burdened		I NT					
81 A challenge and I will do it		VH T					
82 It depends on what it is. We are all here for some work so if its		MV NT					
83 I will involve only if required. If its important else won't like it		V T					
84 Additional burden		VI T					
85 I don't think we can do much. We can find another job. Extra lo		VI T					
86 I try to be positive and work out a way		V NT					
87 Its extra burden		I T					
88 A challenge. I like doing it		VH NT					
89 I have wide area. I am always open to challenges. I enjoy it		VH T					
90 I go with group. I will solve it for all		V NT					
91 If its in my department and if it touches me I will do it. I will accept it		MV T					
92 I just go to line manager and tell him to look at it. Why should I waste		VI NT					
93 Such things happen all the time. I most of the time stands for it. I don		VH T					
94 If its in my domain I will try resolving it		MV T					
95 We have a team leader. We go there		MI NT					
96 They are critical. You keep thinking about it. They do affect you. Its t		I NT					
97 I will still take opportunity to learn even if its not in my area		VH NT					
98 I will do it. It depends on workload but I will do		VH NT					

		What is your view about job loyalty? Do you see it inside your organization? If yes how visible?					OVERALL		FEMALE		MALE	
		Responses	Themes	Letter code	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	
P A K I S T A N	MALE	1 Being loyal and true to yourself. Yes, to some level. To some extent	MV	T	High Visibility	31	31	High Visibility	14	17	17	
		2 Great asset. Not too much but some really are loyal to their work. Very	VL	T	Moderate visibility	31	31	Moderate visibility	17	14	14	
		3 Good to be. Not much. 20%, very little	VL	T	Very low Visibility	21	21	Very low Visibility	10	11	11	
		4 Life with principles. Yes, Very much, say 80%	VH	T	Not visible at all	15	15	Not visible at all	8	7	7	
		5 Good to have. Very little. Very little	VL	T								
		6 Good thing. Not much. Little	VH	T								
		7 Vital. Yes, 80% employees have it	VH	T								
		8 Vital. Not much. To some level	MV	T								
		9 Biggest achievement to have loyalty. Yes, A low. 70%	VH	T								
		10 Being sincere to your assigned tasks, To some extent. 50%	MV	NT								
		11 Staying with same organization. No I don't see. Anyone having oppo	N	NT								
		12 Being loyal to one's self. Not much. Very low	VL	NT	Teaching/Non-teaching							
		13 Very important. Yes. Highly visible	VH	NT	High Visibility	12	19					
		14 Not in practice. Yes, but not too much. 50-60%	MV	NT	Moderate visibility	18	13	Proportion				
		15 Job loyalty is like a person remaining loyal to given tasks. Sometimes	VL	NT	Very low Visibility	10	11	High Visibility	29%	29%	35%	
		16 This is essential component. Yes, to some extent. To some extent it is	MV	T	Not visible at all	9	6	Moderate visibility	32%	35%	29%	
		17 Very important. Not very much. Less	MV	NT	Total	49	49	Very low Visibility	21%	20%	23%	
		18 It's a term for person who is sincere to his work. Very much. 70% p	VH	NT	Grand Total Response	98		Not visible at all	15%	16%	14%	
		19 Very essential. Yes I do see it. Very highly visible 80%	VH	T				Total	100%	100%	100%	
		20 Important but depends on how are treated. Not much insiders. Very	VL	T								
		21 Yes. I see it. Very low	VL	NT								
		22 Yes. 50% are loyal	MV	NT	Teaching/Non-teaching							
		23 Indeed important. I can see it. 90% are loyal	VH	NT	High Visibility	24%	39%					
		24 Key characteristic of job. Very much visible in this organisation. 80	VH	NT	Moderate visibility	37%	27%					
		25 Vital. Yes, I do see. Its very visible	VH	T	Very low Visibility	20%	22%					
U N I T E D K I N G D O M	MALE	26 Extremely important. Lets say 30%. To some extent it is visible	MV	T				High Visibility	17	14		
		27 I am very loyal but not all. They will move out if they got chance but	VH	T				Moderate visibility	14	17		
		28 Very important. Majority have it. Very visible I will say 70, 80%	VH	T	Total	18%	12%	Very low Visibility	11	10		
		29 It's important but I can't define it in words. Yes, people are loyal here	VH	NT				Not visible at all	7	8		
		30 Very very vital. I can see it inside but not much yes moderate level vi	MV	T				Total	49	49		
		31 Loyalty is important but it is not much visible. 30% might be loyal in	VL	NT				Grand total	98			
		32 Yes, definitely important. Yes, people enjoy here, stay late. It shows	VH	NT								
		33 Very important. Definitely. Some are loyal, some are not. Its difficult	VH	NT								
		34 Its very specific. Some are more loyal in some industries. You have to	VH	T								
		35 There is no job loyalty. When good chance come people move. Not v	N	NT								
		36 Yes, its subjective in measuring but you can see here. 65% might have	MV	T								
		37 To me its very important. Some are, some aren't. Visible to some ext	MV	T								
		38 Yes, it is very important to have loyalty to subject not to institution.	MV	T								
		39 Yes, it is important. They are not very loyal due to dissatisfaction and	MV	NT								
		40 Oh yes, important feature of job. I would say its average here. Moder	VH	NT								
		41 Important but employer should do something to please workers too	N	NT								
		42 Essential. To some extent it is present. Mmedium	MV	T								
		43 Yes, academic retention is higher but other departments have lower.	VH	NT								
		44 Personally I think I am loyal to my work but that doesn't help. No or	N	T								
		45 Absolutely important but thing is it has two dimensions. Staff may v	N	T								
		46 Yes, important but employer has to be loyal as well. To some extent	VL	T								
		47 I really think it doesn't exist in academic world. Not at all. Not at all	N	NT								
		48 I think loyalty is earned. Its not right to expect from employees or an	VH	NT								
		49 Its not common. All wants better chances. No I don't see it. Not at a	N	T								
	P A K I S T A N	FEMALE	50 Very important. Yes, Quite visible	MV	NT							
		51 Text book things. Very little. Say like 30% still have it	VL	NT								
		52 Great asset. Yes. Very much	VH	NT								
		53 Very vital. Yes. Very visible	VH	NT								
		54 Essential. Yes. Yes, very highly visible	VH	NT								
		55 Essential. Yes. To some extent	MV	NT								
		56 Good to have. Sometimes. Little	VL	T								
		57 Very essential. Yes, it is present. Very much, 80%	VH	T								
		58 Being loyal towards your work, your institution. Yes. Very much	VH	T								
		59 Loyal to all at work. To some extent. Very much, 60%	MV	T								
		60 Good to have it. Yes, Very high	VH	T								
		61 Loyal to work, workplace. Yes, to some extent	VL	T								
		62 Very very essential to be loyal. To some level. Very little like 2/6 hav	VH	T								
		63 Not a common practice. Not at all. Very low	N	T								
		64 Good to have. Not much. 50% or less. Like 30% to 40% really have i	MV	T								
		65 Good to be loyal but its two way process. I do see its visible here to	VL	NT								
		66 Very very important. Yes most are loyal. See I have been here since 1	VH	NT								
		67 Its important but No I don't see. Not at all	N	NT								
		68 very important. Yes, I do see it. Very visible	VH	NT								
		69 Important. No second thought about it. Yes. Moderately visible	MV	T								
		70 Its not professionalism. You have to look for best options. No, Its no	N	NT								
		71 Important. To some extent visible like 60%	MV	T								
		72 Important. Yes, I do see. 50%	MV	NT								
U N I T E D K I N G D O M		FEMALE	73 Job loyalty is important. I do take it serious. I see it here. Very highly v	VH	T							
			74 Very important. Not really visible. We are only four team member. I	VL	NT							
		75 It is very important but could depend on how employees is viewing o	VL	T								
		76 Can't say but it not important nowadays. No I don't see it. Not at all	N	T								
		77 Yes, it is. I do see it inside. Average	MV	NT								
		78 It doesn't exist. No. Not at all	N	T								
		79 Yes. It's important. Yes, 50%. Some of them yes they have and some	MV	NT								
		80 Very important. Both way shall work. People should be loyal and org	VH	NT								
		81 Very important. If you think its not my job, its bad attitude. I see it	MV	T								
		82 Yes important. Yes to some extent. 40%	VL	NT								
		83 Yes vital. Yes I can see it. People here from long time and work beyon	VH	T								
		84 Very important. No I don't see it here. Not visible at all. Its high turn	N	T								
		85 I don't believe in it. We say is important but it doesn't work. So many	N	T								
		86 I have been here for 10 years. To our team and work I have sense of b	VH	NT								
		87 It is. Yes I see it here. 60%	MV	T								
		88 Its really important but some are not loyal. Yes, inside this organisat	MV	NT								
		89 Yes job loyalty is important. I can't say how visible it is inside this o	MV	T								
		90 I am loyal too much especially to my students. It is more important o	VL	NT								
		91 Very difficult to answer. Lot of competition. Colleagues are not hone	N	T								
		92 Yeah its important. Yes it is inside here and moderately visible 65%	MV	NT								
		93 If there is no job loyalty, how you will you work. You have to be cont	MV	T								
		94 Indeed very important aspect of job. I see inside but moderately visi	MV	T								
		95 Yes, its important. Yes, I see it. A lot of people are here from long tir	VH	NT								
		96 Obviously, yes. Can't count but I can clearly see. Its very visible	VH	NT								
		97 From my point of view, its good to be loyal. Yes, people are loyal. 6	MV	NT								
	98 Not really important. There are people who are here since long time.	VL	NT									

Overall effectiveness of stress management program inside organization				OVERALL				FEMALE		MALE			
Responses	Themes	Letter code	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic			
P A K I S T A N	1	Sorry can't measure but most of the time	VE	Very Effective	VE	Frequency	Frequency						
	2	Never used	NJ	Effective	E	Very Effective	12	Very Effective	8	Very Effective	4		
	3	Not much	E	Effective	SE	Effective	19	Effective	5	Effective	14		
	4	I have used. Yes. It does help	F	Not sure	P	Somewhat Effective	22	Somewhat Effective	13	Somewhat Effective	3		
	5	To some level. Yes its useful	SE	Not sure	NJ	Not sure	12	Not sure	6	Not sure	6		
	6	Not officially but they are considering it. Sometimes. Little	SE	Ineffective	I	Never used	18	Never used	10	Never used	8		
	7	Yes but very little. Yes a bit. Little but effective	SE	Ineffective	I	Ineffective	15	Ineffective	7	Ineffective	8		
	8	No	I	T									
	9	Very productive	VE	T									
	10	Never	NJ	NT									
	11	I never used any. No idea	NJ	NT									
	12	Yes. Yes. A lot	VE	NT									
	13	No. The ones they have is useless. Yes. Not at all	I	NT	Very Effective	Teaching-teaching	3	3	Proportion				
	14	I never used one	NJ	NT	Effective	10	3	Very Effective	12%				
	15	Yes. Yes. To some extent	SE	NT	Somewhat Effective	11	11	Effective	19%	Very Effective	16%	Very Effective	8%
	16	I have some sessions and I feel its quite effective	E	T	Not sure	6	7	Somewhat Effective	22%	Effective	10%	Effective	23%
	17	I never believe in it. It cannot help you until you help yourself	I	NT	Never used	8	9	Not sure	12%	Somewhat Effective	27%	Somewhat Effective	18%
	18	Yes. Yes. Of course reduces my immediate stress	E	NT	Ineffective	5	10	Never used	18%	Not sure	12%	Not sure	12%
	19	I never used. Can't say if its effective or not	NJ	T	Total	49	49	Ineffective	15%	Never used	20%	Never used	16%
	20	Never used and not sure about its effectiveness	NJ	T	Grand Total Resp	98	98	Total	100%	Ineffective	16%	Ineffective	16%
	21	Not sure	F	NT									
	22	Never used any such program	NJ	NT									
	23	Never ever used	NJ	NT									
	24	Yes, I have used but not effective	I	NT									
	25	Its effective	E	T	Teaching-teaching								
U N I T E D K I N G D O M	26	Absolutely it will be very useful	VE	Very Effective	18%	6%	Very Effective		Male	Female			
	27	Yes it help definitely.	E	Effective	20%	18%	Effective		4	8			
	28	At that time it was effective.	SE	T	Somewhat Effective	22%	22%	Somewhat Effective		14	5		
	29	I have never used it but I think it could be of good help	SE	NT	Not sure	12%	14%	Not sure		9	13		
	30	I think it is somewhat effective. Again you see it is a personal thing. If you	SE	T	Never used	16%	18%	Never used		6	6		
	31	Ineffective	I	NT	Ineffective	10%	20%	Ineffective		8	10		
	32	I know here it is but I never tried it. Yes more to immediate issues. Effective	E	NT	Total	100%	100%	Total		49	49		
	33	No. I never used but I would like to think its effective yes	E	NT						98			
	34	Not sure. No I have not used. It could be effective why not. Other might th	P	T									
	35	I think they do have it. I never used it. Not sure	P	NT									
	36	Not sure. We did that event thing. I hadn't used any myself. Yes, it could b	P	T									
	37	None. No, I never used. Yes probably its effective one	SE	T									
	38	Yes, there are some occasional workshop regarding meeting deadline create	SE	NT									
	39	Partially	SE	NT									
	40	Not sure	P	NT									
	41	Not much of use	I	NT									
	42	Its useful	E	T									
	43	It doesn't help	I	NT									
	44	Nothing. No I hadn't used. No if you know there is one. Not sure if it helps	P	T									
	45	It could be useful	E	T									
	46	Useful	E	T									
	47	Useful	E	NT									
	48	Yes, they offer stress training program and even helps you if you are feelin	E	NT									
	49	I have used it but its not effective. It's a temporary solution	I	T									
	P A K I S T A N	50	No. I would love to use one. I guess it will be of help	NJ	NT								
51		Great help. Too much helpful	VE	NT									
52		Very much	VE	NT									
53		I find my stress reduced	E	NT									
54		It helped me overcome my demotivation by giving positive vibes	E	NT									
55		No but should be present. It will be productive to educate staff about stress	NJ	NT									
56		No idea	P	T									
57		Largely useful	VE	T									
58		To some extent	SE	T									
59		Yes but not very effective. Sometimes. Yes, I did but not very effective	I	T									
60		A lot	VE	T									
61		No idea.	NJ	T									
62		Very much	VE	T									
63		May be but I don't see it of any use. Never	NJ	T									
64		I tried anger management. Yes	VE	T									
65		Yes, I have. Its somewhat effective	SE	NT									
66		Yes, yes. No it doesn't offer long term solution	E	NT									
67		No. Never. Not sure	I	NT									
68		Yes, yes. Its effective	SE	NT									
69		Yes, yes at times it helps	SE	T									
70		Yes, I have but its not effective	I	NT									
71		Yes, yes quite useful	SE	T									
72		No. No idea. Not sure	P	NT									
73		No idea.	NJ	T									
U N I T E D K I N G D O M		74	Somewhat effective	SE	NT								
	75	I have not used it	NJ	NT									
	76	Never used. Not sure	NJ	T									
	77	It depends at times	SE	NT									
	78	It can't help you	I	T									
	79	No. It can't help you	I	NT									
	80	Never heard. No idea. I think it should help you to some extent	P	NT									
	81	I don't know. I never used, Yes, it might help. It is effective	P	T									
	82	No, I don't know. It could help. To some level it should be effective	SE	NT									
	83	I don't know but I suppose yes. At previous institution, yes I used and it wa	VE	T									
	84	Yes, you can go for consulting. No I hadn't used. I believe very effective	E	T									
	85	No, never used I don't need it. I don't think others can help you. You can c	I	T									
	86	Unfortunately, I hadn't used It could be useful	NJ	NT									
	87	I have never used it	NJ	T									
	88	I don't think its useful	I	NT									
89	I have used it and it is very helpful	VE	T										
90	I hadn't use nothing.	NJ	NT										
91	Somewhat useful	SE	T										
92	Its effective	E	NT										
93	Yes it does help. I learn lot of things that I didn't know	E	T										
94	I have used and its somewhat effective	SE	T										
95	Yes, I am on waiting list. It could be helpful	SE	NT										
96	I don't remember I ever used it but it does help	SE	NT										
97	Not sure	P	NT										
98	It could be useful	SE	NT										

		How happy you would be in pursuing your career with another organization? If yes, Please explain why?						OVERALL		FEMALE		MALE		
Responses		Themes		Letter code		Statistic		Frequency		Statistic		Frequency		
P A K I S T A N	MALE	1	Depending upon opportunity. I will try for a change if good package is offered	N	T	High Visibility	VH							
		2	I will feel good about it. It has been few years here and I don't feel I can stay here.	N	T	Moderate visibility	MV	High Visibility	31	High Visibility	20	High Visibilit	11	
		3	Depends on how good is post. Recently a colleague got offer of Vice Chancellor f	VL	T	Very low Visibility	VL	Moderate visibility	12	Moderate visibility	5	Moderate vis	7	
		4	If good opportunity comes I will assess mu options. No harm in thinking about be	VL	T	Not visible at all	N	Very low Visibility	19	Very low Visibility	8	Very low Visi	11	
		5	For a while if I see it's good I will go for it. Career growth chance, if comes I will av	N	T	Not sure	U	Not visible at all	27	Not visible at all	11	Not visible at	16	
		6	Not sure but if good opportunity comes then I will think about it. It's always good	U	T			Not sure	9	Not sure	5	Not sure	4	
		7	Not sure. Well I am here but if there is something better, why not? I have a family	U	T			Total	98	Total	49	Total	49	
		8	For change, I would love to try. I like doing new things	MV	T									
		9	Not sure	U	T									
		10	Depends if its much more relaxed. I will. Any organization gining me something be	VL	NT									
		11	If its better I will be very happy. See, if there is opportunity then I will go for it. Try	VL	NT									
		12	No, I am fine. Long career here and doing well	VH	NT	Teaching	Non-teaching	OVERALL						
		13	Now, I won't go. I am fine here. Most of my life has gone serving this university. I	VH	NT	High Visibility	18	13	Proportion		FEMALE		MALE	
		14	Quite happy here. I feel my job is doing enough to keep me happy	MV	NT	Moderate visibility	6	6	High Visibility	32%	Proportion		Proportion	
		15	If good opportunity come I will think about it. It's too much work so if something v	N	NT	Very low Visibility	12	6	Moderate visibility	12%	High Visibility	41%	High Visibilit	22%
		16	No, I am happy here. This university has given me everything I desired for. I am s	VH	T	Not visible at all	8	6	Very low Visibility	19%	Moderate visibility	10%	Moderate vis	14%
		17	Something good comes then no issues in trying all options. I wil asses situation at	VL	NT	Not sure	5	18	Not visible at all	28%	Very low Visibility	16%	Very low Visi	22%
		18	All my life has been here so now changing doesn't come to my mind. I am satisfie	MV	NT	Total	49	49	Not sure	9%	Not visible at all	22%	Not visible at	33%
		19	Depends but I am not sure	U	T	Grand Total Respon	98	Total	100%	Not sure	10%	Not sure	8%	
		20	I will not go. It's a government job	VH	T					Total	###	Total	100%	
		21	No, I am fine here	VH	NT									
		22	Very happy, if I get good chance	N	NT									
		23	I am somewhat happy for time being here	VL	NT	Teaching	Non-teaching							
		24	I am OK here. You know its government job so its fine here. I will stay here	VH	NT	High Visibility	37%	27%			Male	Female		
		25	I will go because I want to try for a change	N	T	Moderate visibility	12%	12%			11	20		
	U N I T E D K I N G D O M	MALE	26	I am comfortable here. I wouldn't see myself here for too long. If better opportunit	VL	T	Very low Visibility	24%	12%		Moderate visibility	7	5	
		27	More than happy to go. Change helps you to grow up more.	N	NT	Not visible at all	16%	12%		Very low Visibility	11	8		
		28	Depends on what is offered. I might go, you might go too if you are given better o	VL	T	Not sure	10%	37%		Not visible at all	16	11		
		29	I will take my chance	N	NT	Total	100%	100%		Not sure	4	5		
		30	I am happy here but if something good is offered. I might try but so far its good h	VL	T					Total	49	49		
		31	I will be happy to go. Workload is too much. I am bit fade up with this routine	N	NT					Grand total	98			
		32	If I got good opportunity I will but I would be sad to go.	MV	NT									
		33	Very happy because of workload. Sometime too many changes here	N	NT									
		34	If offer is very very good I will but you discuss with your employer and see if they	MV	T									
		35	If its good opportunity I will go. I want my family to have best life from my job	N	NT									
		36	It would be based on very very much on opportunity. Something research aspirin	MV	T									
		37	Probably not happy. I am here from long time. I enjoy being here	VH	T									
		38	I don't want to go anywhere	VH	T									
		39	I will be very happy to godue to current issues	N	NT									
		40	I would be happy to go Tired with work	N	NT									
		41	Very much. I feel its too much workload	N	NT									
		42	Very happy. I am ok here but better opportunity will excite me	VL	T									
		43	I am happy here.	VH	NT									
		44	I am very complacent. I am bit lazy. My friends are here. It's convenient. I am fine h	VH	T									
		45	It depends on circumstances. If chance to stay you stay. If circumstances ask you	MV	T									
		46	Depends on opportunity. I like to move. Politics in organisation cause all such pre	N	T									
		47	I will be more than happy to go. I am bored here	N	NT									
		48	I have no active plans to go. I am happy here but I can't say what happens in futu	VH	NT									
		49	See it all depends. I might go and I might stay. It all depends on offer	VL	T									
P A K I S T A N		FEMALE	50	Really I am comfortable. I would stay here. This job, this university has given me a	VH	NT								
			51	I won't like going anywhere. I am having all support here. I enjoy the environment	VH	NT								
		52	I won't go. I am getting all what I desired for	VH	NT									
		53	Very much fine here because it is like my home	VH	NT									
		54	I wouldn't like to go because this organization has given me too many things	VH	NT									
		55	Not sure. Maybe I might be very happy maybe I might not	U	T									
		56	At the moment I am fine here. I will be happy continuing here	VL	T									
		57	Not sure but I am very happy here. I know all, familiar with surroundings. I feel rel	MV	T									
		58	I am not sure but I will not be happy. I am comfortable here	VL	T									
		59	I would grab none. I am happy here. This is like my second home. I am happy	VH	T									
		60	No, I am happy here. All well	VH	T									
		61	I am here since long so if I had to quit I would have done long ago. I hadn't becau	VH	T									
		62	Not at all. I am fine here. The institution has given a lot to me. I would like to stay	VH	T									
		63	Something better will be definitely considered. Opportunities help you grow. New	N	T									
		64	No I won't be happy. This department has given me a lot. I can't think of quitting	VH	T									
		65	Not sure	U	T									
		66	I am happy here. It has become my routine. Its part of my life to work here	VH	NT									
		67	A little disappointed to leave because its long time I worked here but it will take ti	VL	NT									
		68	Not sure about much but if its good opportunity I might consider	VL	NT									
		69	Its even difficult to think I can go. I have so many years of my life here	VH	T									
		70	I will definitely go. Everyone deserve a chance to get something better	N	NT									
		71	Depends. I might consider if its good opportunity	VL	T									
		72	Not sure	U	T									
		73	I am very happy here	VH	T									
	U N I T E D K I N G D O M	FEMALE	74	Difficult one. I would like to stay bu if those changes which I mentioned earlier tak	MV	NT								
			75	Currently I am fine but I might go if goop opportunity is there	VL	T								
		76	I will stay. I am new here and may be with time it gets better	VH	T									
		77	It depends. I will go if better career opportunity comes my way	N	NT									
		78	Not sure	U	T									
		79	If more paid job I will go. May be location, next to my house will make me go	N	NT									
		80	Yes, I will be happy. Just tired of doing something	N	NT									
		81	I will be happy to go. Workload is too much. I am bit fade up with this routine. I w	N	T									
		82	It depends on opportunity. I might stay or might go	VL	NT									
		83	Yes. Here are too many changes. I would go to place where its all stable	VL	T									
		84	I would be sad but I will be staying. Probably because of my age. Soon, I will retire	VH	T									
		85	At the moment, I am fine here. I don't have any plan. If I feel very high pressure I n	VH	T									
		86	It there is one. I will welcome it	N	NT									
		87	Yes but I wouldn't want to leave	VH	T									
		88	At the moment I am happy here. Couldn't be much better	VH	NT									
		89	I enjoy what I am doing here but working for others too is a plus.	MV	T									
		90	I will be very happy	N	NT									
		91	I don't think that I will be happy. I think it will be wrong. My age is 46. I won't go.	VH	T									
		92	It depends. Obviously if better chance come few might consider. I am not sure	U	NT									
		93	It depends on the type of organisation. What are the opportunity. At the moment	VH	T									
		94	Very happy to move on. It's stressful here	N	T									
		95	Half half	MV	NT									
		96	If good opportunity come I will	VH	NT									
		97	I would be happy to go. If its good for my career I will go	N	NT									
		98	Quite happy to go. I want less hour more money	N	NT									

		What causes you more stress at work (Personal factors, organisational factors, or environmental factors)					OVERALL	FEMALE	MALE
Responses		Themes	Letter code	Statistic	Frequency	Frequency	Statistic	Statistic	
P A K I S T A N	MALE 1	Environmental factors like any mishap, strike, etc	E T	Personal Factors (F)	P	36	36	36	
	2	Organisational factors	O T	Organisational fac	O	36	36	36	
	3	Personal factors	P T	Environmental fac	E	22	22	22	
	4	Organisational	O T	No stress	N	4	4	4	
	5	Environmental	E T						
	6	Organisational factors	O T						
	7	Organisational factors	O T						
	8	Organisational	O T						
	9	Organisational stress	O T						
	10	Environmental factors causes me stress	E NT						
	11	Organisational stress	O NT						
	12	Organisational factors	O NT						
	13	Political uncertainty is a major issue	E NT	Teaching on-teaching	OVERALL				
	14	Environmental factors	E NT	Personal Factors (F)	20	16	Proportion	FEMALE	MALE
	15	Organisational factors	O NT	Organisational fac	18	18	Personal Factors (Family)	37%	37%
	16	Environmental factors	E NT	Environmental fac	9	13	Organisational factors (R)	37%	37%
	17	Organisational factors because personal are only temporary	O NT	No stress	2	2	Environmental factors (E)	22%	22%
	18	Well I say organisational factors at time causes me stress but t	O NT	Total	49	49	No stress	4%	4%
	19	Organisational factors	O T	Grand Total Respon	98	98	Total	100%	100%
	20	Environmental Factors	E T						
	21	Environmental factors	E NT	Teaching on-teaching					
	22	Environmental factors	E NT	Personal Factors (F)	41%	33%			
	23	Organisational factors	O NT	Organisational fac	37%	37%			
	24	Organisational factors too but I will say environmental factors.	E NT	Environmental fac	18%	27%			
	25	Organisational factors	O T	No stress	4%	4%			
U N I T E D K I N G D O M	MALE 26	I think the political climate inside this organization. Environme	E T	Total	100%	100%			
	27	Organisational factors. Injustice inside here	O NT						
	28	Depends on situation. Politics inside the organisation. Organ	E T						
	29	Environmental stress is higher. I feel too much politics inside t	E NT						
	30	Organisational factors. I can see few favoured and others igno	O T						
	31	Surely, Organisational factors	O NT						
	32	Family and work. Personal and work goes together. Work is yo	P NT						
	33	Work. Organisational factors	O NT						
	34	It depends on time. Sometime you get pressure from family like	O T						
	35	Work causes me stress	O NT						
	36	In between personal and organisational factors. Coming from f	E T						
	37	No personal issues cause me stress but technology does. I am	E T						
	38	Adversely can be pain. Complext environmtn. Some people m	P T						
	39	Organisational factors. Workload	O NT						
	40	Organisational factors	O NT						
	41	Environmental factors	E NT						
	42	Organisational factors	O T						
	43	No stress at all	N NT						
	44	Everything. Combination of a lot. We all have stress but gettin	O T						
	45	I didn't find myself in such situation. Stress is outcome of fail	N T						
	46	Politics at work. Organisational factors	O T						
	47	Environmental factors	E NT						
	48	Personal factors. Organisational factors are second to inject st	P NT						
	49	Organisational factors	O T						
	P A K I S T A N	FEMALE 50	Personal	P NT					
51		Environmental uncertainties like political unrest in city	E NT						
52		Mostly organisational factors affect me	O NT						
53		Personal stress	P NT						
54		Personal things	P NT						
55		Personal factors give me higher stress	P NT						
56		Personal factors usually	P T						
57		Usually my family issues do cause me stress	P T						
58		Environmental factors	E T						
59		Organisational factors	O T						
60		Personal factors cause me stress	P T						
61		All but mostly personal factors cause me higher stress	P T						
62		Personal factors	P T						
63		Family issues cause me stress. Personal factors	P T						
64		Personal stress is high. My family related issues	P T						
65		Environmental factors	E NT						
66		Organisational factors	O NT						
67		My family issues	P NT						
68		No such things	N NT						
69		Personal factors	P T						
70		Personal factors	P NT						
71		Personal	P T						
72		Environmental factors	E NT						
73		Personal factors	P T						
U N I T E D K I N G D O M		FEMALE 74	Personal things. My family issue causes me stress often	P NT					
	75	Personal life. My family. I can't give them time	P T						
	76	Personal issues. There are conflicts. I can see too much politic	P T						
	77	Work	O NT						
	78	My personal life issues	P T						
	79	Too much politics at workplace	E NT						
	80	Work. Tasks give me stress	O NT						
	81	Workload. Organisational factors	O T						
	82	I try not to get stressed. Its overwork sometimes but usually m	P NT						
	83	Personal	P T						
	84	Organisational factors	O T						
	85	Misunderstanding between colleagues like personality clashes	P T						
	86	More controlled about personal but no control at work	O NT						
	87	Working fulltime. Doing PhD and I have family	P T						
	88	Family, personal issues	P NT						
	89	Personal factors. Secondly, I don't feel right about brodening	P T						
	90	When there is conflicts with colleagues. Non professional and	P NT						
	91	Organisational factors. Over burden and deadline causes me s	O T						
	92	It depends on time. If something happens at time there then it	P NT						
	93	Sometimes political envionmtn. Family issues come in differ	P T						
	94	No stress	N T						
	95	All personal factors	P NT						
	96	It varies. Once I am at office than its all office. Usually office th	O NT						
	97	Family and outside influences	P NT						
	98	Financial issues	P NT						

		What is the impact of this type of stress on you? like behavioural, psychological, physiological, cognitive?				OVERALL	FEMALE	MALE
P A K I S T A N	Responses	Themes	Letter code	Statistic	Statistic	Statistic	Statistic	
				Frequency	Frequency	Frequency	Frequency	
P A K I S T A N	1 Behavioural issues grow up	B	T	Behaviour	B	28	8	20
	2 Behavioural	B	T	Psycholo	S	35	21	14
	3 Like I told you anxiety. Mostly behavioural	B	T	Physiolo	P	20	9	11
	4 Psychological	P	T	Cognitive	C	10	7	3
	5 Behavioural	B	T	No impac	N	5	4	1
	6 Behavioural	B	T					
	7 Physiological	P	T			98	49	49
	8 Behavioural	B	T					
	9 Physiological	P	T					
	10 Behavioural problem happens due to such types of stress	B	NT					
	11 Behavioural	B	NT					
	12 Behavioural	B	NT					
	13 Physical	P	NT	Teaching on-teaching	OVERALL			
	14 Psychological	S	NT	Behaviour	14	14	Proportion	
	15 Psychological concern are more affecting me	P	NT	Psycholo	19	16	Behavioural	29%
	16 Behavioural issues do occur due to stress	B	NT	Physiolo	7	13	Psychological	36%
	17 Psychological impact higher than any other	B	T	Cognitive	5	5	Psychological	20%
	18 Usually behavioural things happen due to it but that's for time being	S	NT	No impac	4	1	Cognitive	10%
	19 Psychological symptoms	B	NT	Total	49	49	No impact	5%
	20 Physical	S	T	Grand Tot	98		Total	100%
	21 Behavioural	P	T				No impact	8%
	22 Disturb sleep	B	NT				Total	100%
	23 Psychological. I will say emotional	S	NT	Teaching on-teaching				
	24 I do have aching and pain. Even sometimes I feel like my heartrate has rapidly increase	P	NT	Behaviour	29%	29%		
	25 Anxiety and depression	P	NT	Psycholo	39%	33%	Male	Female
26 Stress. Cognitive	C	T	Physiolo	14%	27%	Behavioural	20	8
27 Demotivation. Psychological impact and may end in physical one. It can affect persons	S	NT	Cognitive	10%	10%	Psychological	14	21
28 De-motivation. Psychological one	S	T	Total	92%	98%	Psychological	11	9
29 I forget things. I have memory issue. Cognitive	C	NT				Cognitive	3	7
30 Mood swings. At times I become too moody. Everyone is asking me what happened. P	S	T				No impact	1	4
31 Psychological	S	NT				Total	49	49
32 Psychological. I don't express emotions so I am upfront standing but inside bit sad	S	NT				Grand total	98	
33 Psychological. I can be more closed and angry but nothing physical	S	NT						
34 If stress I eat more. Behavioural. I had headache too, My health detriote but its more b	B	T						
35 To be honest, I don't know exactly but behavioural more	B	NT						
36 Behavioural	B	T						
37 Physical. No such othr issues but only if I don't get solution then it depress you a little	P	T						
38 It make me more determinant but at times I have emotional problems	C	T						
39 You never feel you did right. Make additional changes. Resourcing is important to over	P	NT						
40 Mood swings	S	NT						
41 Physical symptoms. I can't eat or even sleep	P	NT						
42 Psychological too but mostly behavioural impact	B	T						
43 Physical pain. I sleep to get better. The key is rest. I make sure I have rest at weekend a	P	NT						
44 Sleepless nights. Sometimes at middle of night I talk to myself. Unable to sleep. I keep	B	T						
45 Despite all. It never foes to point that affects me too much. Its more in my mind. I have	N	T						
46 All of these affect but psychological stays longer	S	T						
47 My mood will change	S	NT						
48 I find to lash out things. I let stress leak into my behaviour. I avoid people because I do	B	T						
49 I have sleep problem often due to stress	B	T						
50 Psychological	S	NT						
51 I feel depress. My mood swings (behavioural)	S	NT						
52 Psychological symptoms are resulting frequently	P	NT						
53 Psychological. I feel emotionally depressed	S	NT						
54 Psychological	S	NT						
55 I have cognitive issues	C	NT						
56 Psychological factors usually	S	T						
57 It affects me in psychological manner	S	T						
58 Cognitive	C	T						
59 Psychological symptoms are common	S	T						
60 Psychological	S	T						
61 Psychological	S	T						
62 Psychological	S	T						
63 I have memory issue (cognitive)	C	T						
64 Psychological	S	T						
65 Physical most of the times	P	NT						
66 Behavioural	B	NT						
67 I worry constantly	C	NT						
68 No impact	N	NT						
69 Emotional	S	T						
70 Physical	P	NT						
71 Behavioural	B	T						
72 Physical	P	NT						
73 Psychological impact	S	T						
74 Anxiety take place. I will say psychological	S	NT						
75 Anxiety and depression	S	T						
76 Agitation, anxiety. More emotional things	S	T						
77 I can't focus. Unable to concentrate	C	NT						
78 I have depression and anxiety. I feel like too much irritation	S	T						
79 Emotionally affected	S	NT						
80 Psychological. Amæty	S	NT						
81 Eye affects sometimes. Physical and lack of rest. So I am bit on medicene too.	P	T						
82 Body. Physical	P	NT						
83 Worried about things. Sometime sleep less but I keep thinking about it	C	T						
84 Psychological	S	T						
85 If there is any issue then it will reduce your plan. I don't feel good about it. I don't like	S	T						
86 Physical symptoms that's why I go to Dr.	P	NT						
87 It gets to point I get asserive. I plan. There is no impact	N	T						
88 My grand mother was hospitakred. I had to travelled to Spain. All the time I was there	C	NT						
89 Yes, it creates physiological reactions because of being casual	P	T						
90 I eat less. I sleep less. I do have at times anxiety but mostly its my diet and sleep	B	NT						
91 I am calm person. Balanced under stress. I sleep less. This might affect my health.	B	T						
92 I never measure. Its pressure at work. Once I am out I enjoy with my family but I do hav	B	NT						
93 I always try solving it. I don't bottle it. I try solving it. It has no impact	N	T						
94 No impact	N	T						
95 More anxiety	S	NT						
96 I have physical pain. I do have body issues, which leads to depression	P	NT						
97 Worrying constantly	B	NT						
98 I probably should. More frustration	B	NT						

APPENDIX B

<p>AC</p> <p>Personal strain via Perceived Job Stress</p> <p>$0.68 \times 0.33 = .22$</p> <p>$0.28 + 0.22 = .5$</p>	<p>AC</p> <p>Perceived job stress via personal strain</p> <p>$0.68 \times 0.28 = .19$</p> <p>$0.33 + 0.19 = .52$</p>	<p>AC</p> <p>Role of Occ Therapist via personal strain</p> <p>$0.27 \times 0.28 = .016$</p> <p>$0.06 + = .296$</p>	<p>AC</p> <p>Personal Resources via Personal Strain</p> <p>$0.38 \times 0.28 = .106$</p> <p>$0.13 + 0.1604 = .23$</p>	<p>AC</p> <p>Personal Strain</p> <p>$0.09 \times 0.28 = .025$</p> <p>$0.16 + 0.025 = .18$</p>
<p>AC</p> <p>Role of Occupational Therapist</p> <p>$0.27 \times 0.06 = .016$</p> <p>$0.28 + 0.016 = .296$</p>	<p>AC</p> <p>Role of Occupational Therapist</p> <p>$0.25 \times 0.06 = .015$</p> <p>$0.33 + 0.015 = .34$</p>	<p>AC</p> <p>via Perceived job stress</p> <p>$0.25 \times 0.33 = .082$</p> <p>$0.06 + 0.082 = .14$</p>	<p>AC</p> <p>Perceived Job Stress</p> <p>$0.31 \times 0.33 = .042$</p> <p>$0.13 + 0.042 = .17$</p>	<p>AC</p> <p>Perceived Job Stress</p> <p>$0.12 \times 0.33 = .039$</p> <p>$0.16 + = .19$</p>
<p>AC</p> <p>Personal Resources</p> <p>$0.38 \times 0.13 = .049$</p> <p>$0.28 + 0.049 = .32$</p>	<p>AC</p> <p>Personal Resources</p> <p>$0.31 \times 0.13 = .04$</p> <p>$0.33 + 0.04 = .37$</p>	<p>AC</p> <p>Personal Resources</p> <p>$0.29 \times 0.13 = .0377$</p> <p>$0.06 + 0.037 = .097$</p>	<p>AC</p> <p>Role of Occ therapist</p> <p>$0.29 \times 0.06 = .017$</p> <p>$0.13 + 0.037 = .147$</p>	<p>AC</p> <p>Role of Occ therapist</p> <p>$0.13 \times 0.06 = .007$</p> <p>$0.16 + 0.007 = .167$</p>
<p>AC</p> <p>Social support</p>	<p>AC</p> <p>Social support</p>	<p>AC</p> <p>Social support</p>	<p>AC</p> <p>Social support</p>	<p>AC</p> <p>Social support</p>

0.09 X 0.16 = .014	0.12 X 0.16 = .019	0.13 X 0.16 = .020	0.15 X 0.16 = .024	0.15 X 0.13 = .019
0.28 + 0.014 = .29	0.33 + 0.019 = .34	0.06 + 0.020 = .08	0.13 + 0.024 = .15	0.16 + 0.0195 = .17

NC Personal strain via Perceived Job Stress 0.68 X 0.23 = 0.156 0.15 + 0.156 = .306	NC Perceived Job Stress via personal strain 0.68 X 0.15 = 0.102 0.23 + 0.102 = .332	NC Role of occupational therapist via personal strain 0.27 X 0.15 = 0.405 0.02 + 0.405 = 0.06	NC Personal Resources via Personal Strain 0.38 X 0.15 = .057 0.14 + 0.057 = .19	NC Social support via Personal Strain 0.09 X 0.15 = .011 0.13 + = 0.16
NC Role of Occupational Therapist 0.27 X 0.02 = .005 0.15 + 0.005 = 0.15	NC Via Role of Occupational Therapist 0.25 X 0.02 = .005 0.23 + 0.005 = 0.235	NC Via Perceived Job Stress 0.25 X 0.23 = .0575 0.02 + 0.0575 = 0.0775	NC Via Perceived Job Stress 0.31 X 0.23 = .0713 0.14 + 0.0713 = .21	NC Via Perceived Job Stress 0.12 X 0.23 = .027 0.13 + = .14
NC Personal Resources 0.38 X 0.14 = .05 0.15 + 0.05 = .20	NC Personal Resources 0.31 X 0.14 = .0434 0.23 + 0.0434 = .27	NC Personal Resources 0.29 X 0.14 = .0406 0.02 + 0.0406 = .06	NC Via Occ. Therapist 0.29 X 0.02 = .005 0.14 + 0.005 = .145	NC Via Occupational Therapist 0.13 X 0.02 = .002 0.13 + 0.002 = .13

NC	NC	NC	NC	NC
Social Support	Social Support	Social Support	Social Support	Via Personal Resources
$0.09 \times 0.13 = .011$	$0.12 \times 0.13 = .015$	$0.13 \times 0.13 = .0195$	$0.15 \times 0.13 = .023$	$0.15 \times 0.02 = .023$
$0.15 + 0.011 = 0.16$	$0.23 + 0.011 = .24$	$0.02 + 0.0195 = .039$	$0.02 + 0.23 = .043$	$0.13 + 0.23 = .033$

CC	CC	CC	CC	CC
Personal strain via Perceived Job Stress	Perceived Job Stress via personal strain	Occ Therapist Via Personal Strain	Personal Resources via Personal strain	Social Support via Personal Strain
$0.68 \times 0.07 = .047$	$0.68 \times 0.14 = .095$	$0.27 \times 0.14 = .037$	$0.38 \times 0.14 = .053$	$0.09 \times 0.14 = .012$
$0.14 + 0.047 = .18$	$0.07 + 0.095 = .16$	$0.08 + 0.037 = .11$	$0.27 + 0.053 = .19$	$0.26 + 0.012 = .27$
CC	CC	CC	CC	CC
Via Role of Occupational Therapist	Via Role of Occ Therapist	Via Perceived Stress	Via Perceived Job Stress	Via Perceived Job Stress
$0.27 \times 0.08 = .02$	$0.25 \times 0.08 = .02$	$0.25 \times 0.07 = .017$	$0.31 \times 0.07 = .021$	$0.12 \times 0.07 = .008$
$0.14 + 0.02 = 0.166$	$0.07 + 0.02 = .09$	$0.08 + 0.017 = .09$	$0.27 + 0.021 = .29$	$0.26 + 0.008 = .268$
CC	CC	CC	CC	CC
Via Personal Resources	Via Personal Resources	Via Personal Resources	Via Occ therapist	Via Occ Therapist
$0.38 \times 0.27 = 0.102$	$0.31 \times 0.27 = 0.095$	$0.29 \times 0.27 = .078$	$0.29 \times 0.08 = .023$	$0.13 \times 0.08 = .010$

$0.14 + 0.10 = .24$	$0.07 + 0.095 = .16$	$0.08 + 0.078 = .15$	$0.27 + 0.023 = .292$	$0.26 + 0.010 = .27$
CC	CC	CC	CC	CC
Via Social support	Via Social support	Via Social Support	Via Social Support	Via personal Resources
$0.09 \times 0.26 = 0.024$	$0.12 \times 0.26 = 0.034$	$0.13 \times 0.26 = .033$	$0.15 \times 0.26 = .039$	$0.15 \times 0.27 = .04$
$0.14 + 0.024 = 0.164$	$0.07 + 0.034 = 0.102$	$0.08 + 0.033 = .13$	$0.27 + 0.039 = .30$	$.0.26 + 0.04 = .30$

Total Effect of Personal Strain on NC through perceived job stress: $Y1a_2 = \beta_1 + (\beta_2 \times \beta_3)$

Total Effect of Personal Strain on NC through role of OT: $Y1b_2 = \beta_1 + (\beta_4 \times \beta_5)$

Total Effect of Personal Strain on NC through personal resources: $Y1c_2 = \beta_1 + (\beta_6 \times \beta_7)$

Total Effect of Personal Strain on NC through social support: $Y1d_2 = \beta_1 + (\beta_8 \times \beta_9)$

β_1	β_2	β_3	B4	B5	β_6	B7	B8	B9	β_{10}	β_{11}	β_{12}	β_{13}	β_{14}	β_{15}	β_{16}	β_{17}	β_{18}	β_{19}	β_{20}	β_{21}	β_{22}	β_{23}	β_{24}	β_{25}	β_{26}
.28																									
	.68																								
		.33																							
			.27																						
				.06																					
					.38																				
						.13																			
							.09																		
								.16																	
									.25																
										.06															
											.31														
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																			.14						
																				.13					
																					.14				
																						.07			
																							.08		
																								.27	
																									.26

APPENDIX C

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.813
Bartlett's Test of Sphericity	Approx. Chi-Square	5926.718
	Df	231
	Sig.	.000

Communalities

	Initial	Extraction
Rate Occupational Therapist Representation	.761	.784
Rate Occupational Therapist Representation at University	.853	.943
Impact of Occupational Therapist in Sustenance of Human Capital	.831	.862
Occupational therapist offers solutions to improves working efficiency	.876	.957
Occupational therapist address concerns to improve organisational commitment]	.847	.869
Occupational therapist counselling is effective in reducing different types of stress	.785	.798
Personal Strain – I	.610	.531
Personal Strain II	.499	.541
Personal Strain III	.547	.589
Perceived Job Stress I	.586	.553
Perceived Job Stress II	.523	.453
Perceived Job Stress III	.582	.633
Affective Commitment – I	.638	.776
Affective Commitment II	.545	.547
Normative Commitment I	.488	.488
Normative Commitment II	.543	.675
Continuance Commitment I	.510	.579
Continuance Commitment II	.512	.477
Personal Resources I	.624	.664
Personal Resources II	.621	.694
Social Support I	.588	.649
Social Support II	.546	.420

Extraction Method: Maximum Likelihood.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.351	24.324	24.324	4.718	21.446	21.446	3.480
2	4.331	19.687	44.011	1.241	5.641	27.087	3.565
3	2.654	12.065	56.076	3.790	17.226	44.313	3.656
4	1.627	7.394	63.470	2.711	12.323	56.636	3.812
5	1.328	6.036	69.506	1.297	5.898	62.534	2.944
6	1.114	5.066	74.572	.726	3.300	65.834	2.635
7	.899	4.086	78.658				
8	.639	2.904	81.562				
9	.608	2.765	84.327				
10	.517	2.348	86.675				
11	.462	2.102	88.777				
12	.362	1.645	90.421				
13	.339	1.543	91.964				
14	.301	1.368	93.332				
15	.264	1.202	94.534				
16	.254	1.157	95.690				
17	.229	1.042	96.732				
18	.211	.960	97.693				
19	.182	.827	98.520				
20	.155	.706	99.227				
21	.092	.418	99.644				
22	.078	.356	100.000				

Extraction Method: Maximum Likelihood.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix^a

	Factor					
	1	2	3	4	5	6
The representation of professional occupational therapist in Education sector			.835			
The representation of professional occupational therapist at your institution			.991			
The impact of professional occupational therapist in the sustaining human capital in your institute			.884			
Occupational therapist offers advices/solutions that improves working efficiency				.987		
Occupational therapist address concerns that improve organisational commitment				.903		
Occupational therapist counselling is effective in reducing different types of stress				.839		
I work under tight time deadlines.	.707					
I frequently make mistakes in my work.	.731					
Lately, I respond badly in situations that normally wouldn't bother me.	.795					
While relaxing I frequently think about work	.689					
I by myself usually find solution for my problems at work.	.556					
I really feel as if this university's problems are my own					.724	
I would be very happy to spend the rest of my career with this organization					.832	
I feel a moral obligation to pursue my career path with this university because loyalty is more important for me					.716	
One of the reasons behind working here is I receive emotional and moral support.					.558	.411
Right now, staying with my organization is a matter of necessity as much as desire						.802
I am not afraid of what might happen if I quit my job without having another one lined up.						.716
When I need suggestions on how to deal with a personal problem, I know someone at university I can turn to.		.654				
There is someone I could turn to for advice about making career plans or flexible hours.		.798				
I get a social support from my peers and other members.		.846				
There is at least one person in this university who listen to my problems.		.798				
I am expected to do many different tasks in too little time.		.763				

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

APPENDIX D

Questionnaire:

This survey is to examine the relationship between occupational stress and organisational commitment in Education sector of UK and Pakistan. The participants are teaching (lecturers) and administrative staff of universities. The findings will be used only for academic purpose. All information and details shared by participants will be kept confidential. If you may decide to opt out at any stage of survey, you are allowed to do so. It will take approximately 3-to-5 minutes to answer all questions.

A) Demographic information:

1. Gender *(Please tick the appropriate option)*

- Male
- Female
- Prefer not to say

2. Age Bracket *(Please tick the appropriate option)*

- 18-25
- 26-35
- 36-45
- 46-55
- 56-65
- 66 or Above

3. Education *(Please tick the appropriate option)*

- High School
- College
- Vocational Training
- Bachelors
- Masters
- Doctorate/PhD

Other, Please specify _____

4. Year of Experience in Education Sector*(Please tick the appropriate option)*

- Less than a year
- 1-2 years
- 3-5 years
- 6-8 yaers
- 9-12 years
- 13-15 years
- 16 or Above

5. Faculty*(Please tick the option best describe you)*

- Teaching Staff
- Non-teaching Staff

B. Attitudinal and Behavioural questions:

I. Rate the following statements:											
(0=0, 0.1=10%.....1.0=100%).											
Low ----- High											
	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
The representation of professional occupational therapist in Education sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The representation of professional occupational therapist at your institution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The impact of professional occupational therapist in the sustaining human capital in your institute	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. Rate the following statements:	1	2	3	4	5	6	N/A
(Strongly Disagree=1, Disagree= 2, 3= Moderately Disagree, 4 = Moderately Agree, 5 = Agree, 6= Strongly Agree)							
Occupational therapist counselling is effective in reducing different types of stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Occupational therapist offers advices/solutions that improves working efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Occupational therapist address concerns that improve organisational commitment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III (A). Rate the following statements:	1	2	3	4	5	6
(Strongly Disagree=1, Disagree= 2, 3= Moderately Disagree, 4 = Moderately Agree, 5 = Agree, 6= Strongly Agree)						
I am expected to do many different tasks in too little time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I work under tight time deadlines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(B).						
I frequently make mistakes in my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lately, I respond badly in situations that normally wouldn't bother me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(C).						
While relaxing I frequently think about work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I by myself usually find solution for my problems at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV (A). Rate the following statements:	1	2	3	4	5	6
(Strongly Disagree=1, Disagree= 2, 3= Moderately Disagree, 4 = Moderately Agree, 5 = Agree, 6= Strongly Agree)						
I really feel as if this university's problems are my own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would be very happy to spend the rest of my career with this organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(B).						
I feel a moral obligation to pursue my career path with this university because loyalty is more important for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
One of the reasons behind working here is I receive emotional and moral support.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(C).						
Right now, staying with my organization is a matter of necessity as much as desire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not afraid of what might happen if I quit my job without having another one lined up.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V (A). Rate the following statements:	1	2	3	4	5	6
(Strongly Disagree=1, Disagree= 2, 3= Moderately Disagree, 4 = Moderately Agree, 5 = Agree, 6= Strongly Agree)						
When I need suggestions on how to deal with a personal problem, I know someone at university I can turn to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is someone I could turn to for advice about making career plans or flexible hours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get a social support from my peers and other members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is at least one person in this university who listen to my problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI (A). Tick one of the following options that could be a prime reason for your stress at workplace:		
Personal Factors (Family problem, financial problem, personality)		<input type="checkbox"/>
Organisational Factors (Role Demand, Task Demand, Organisational Structure, leadership, interpersonal relationship, Life-cycle of the organisation)		<input type="checkbox"/>
Environmental Factors (Economic uncertainty, Political uncertainty, Technological uncertainty)		<input type="checkbox"/>
VI (B). Based on your above section, tick one of the following option		
Personal Factors		
Family Problems <input type="checkbox"/>	Financial Problems <input type="checkbox"/>	Personality Clashes <input type="checkbox"/>
Organisational Factors		

Role Demand <input type="checkbox"/>	Task Demand <input type="checkbox"/>	Organisational Structure <input type="checkbox"/>	Leadership <input type="checkbox"/>	Interpersonal relationship <input type="checkbox"/>	Life-cycle of the organisation <input type="checkbox"/>
Environmental Factors					
Economic Uncertainty <input type="checkbox"/>		Political Uncertainty <input type="checkbox"/>		Technological Uncertainty <input type="checkbox"/>	

VII. Tick one of the following options that could be a prime effect of your stress at workplace:	
Behavioural (Disturb eating habit, Disturb sleep, procrastinating or responsibilities, Using alcohol or cigarettes to relax, Nervous habits (e.g. nail biting, pacing))	<input type="checkbox"/>
Physical (Aches and pains, Constipation, Nausea, dizziness, Chest pain, Rapid heart rate, Frequent colds or flu)	<input type="checkbox"/>
Cognitive (Memory problems, Inability to concentrate, Seeing only the negative, Anxious thoughts, Constant worrying)	<input type="checkbox"/>
Emotional (Depression, Anxiety, Moodiness, irritability or anger, Feeling overwhelmed, Loneliness and isolation, Other emotional health problems)	<input type="checkbox"/>

Thank you for your feedback

Interview Questions:

This interview is to examine the relationship between occupational stress and organisational commitment in Education sector of UK and Pakistan. The participants are teaching (lecturers) and administrative staff of universities. The findings will be used only for academic purpose. All information and details shared by participants will be kept confidential. If you may decide to opt out at any stage of interview, you are allowed to do so. It will take approximately 7-to-10 minutes to answer all questions.

Q1: Do you know the purpose of research?

Q2: I would like to inform you that you may leave this interview at anytime if you feel to opt out

Q3: Tell me about your job role (teaching or non-teaching)?

Q4: How many years of experience you have in Education sector?

Q5: How do feel about it?

Q6: What do you like most about this job role?

and why?

Q7: Is there anything that you do not like about this job?

Why?

Q8: What effect does it have on your efficiency? (*question from who disliked anything about their job role*)

Q9: Is there anything you do to overcome It?

If Yes, will you please share it?

Q10: Is there any representation of professional occupational therapist at your university?

If Yes, will you please share like the rate of representation such as 10%, 20%,...100%?

Q11: Do you think professional occupational therapist at organisation is effective?

If yes, How?

If not, Why?

Q12: Have you ever used professional occupational therapist services?

If yes, Did you find it useful?

Q13: Are you aware of social support at workplace?

If yes, will you please share according to you what it is?

Q14: Do you have it here?

If yes, Have you ever used it?

If you may please share your experience

Q15: Is it of any use?

Have you gain any emotional or moral support through it?

Q16: What do you think about organisational problem that you may be facing or had faced before?

If you may please explain a little more

Q17: What is your view about job loyalty.

Do you see it inside your organisation?

If yes, how visible?

Q18: Is there any organisational stress management programme inside your organisation?

If yes, have you ever used it?

If yes, did it help you? If yes, how much?

Q19: How happy you would be in pursuing your career with another organisation?

If yes, Please explain why?

Thank you for your cooperation

APPENDIX E

Determining Sample Size:

$$M.E = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{n}$$

$z = 1.96$ with 95% confidence

$$M.E = \pm 4\% (0.04)$$

$n =$ Sample Size

\hat{p} = prior judgement of the correct value of p (Probability to have more than 20% of population)

$$M.E = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{n}$$

$$n = \frac{z\sqrt{\hat{p}(1-\hat{p})}}{M.E}$$

$$n = \frac{\hat{p}(1-p)z^2}{M \cdot E^2}$$

$$n = \frac{0.2(1-0.2)(1.96)^2}{(0.04)^2}$$

$$n = \frac{(0.2 \times 0.8) \times (1.96 \times 1.96)}{0.04 \times 0.04}$$

$$n = \frac{0.16 \times 3.8414}{0.0016}$$

$$n = \frac{0.614624}{0.0016}$$

$$n = 384.14$$

Thus, using Jamal's marginal error formula, minimum sample size is **384** respondents to draw logical conclusion.

APPENDIX F

Demand Control Model

"Oversimplification assumption" could be accredited as a reason for this variation because it is likely possible those environmental demands are given higher preference (Payne, Jick, and Burke, 1982). Furthermore, environmental demands could be a reason for a change in the differences in the outcome as not all individuals are affected by the events in a similar manner (Payne *et al.*, 1982). Another criticism is posed by Carayon (1993) that multi-dimensional constructs are broader aspects whereas the control conceptualization is a rather small indicator. Moreover, Cox *et al.*, (2000) found that instead of the other types of demands, the demands' definition is based on workload under the DCS model. Furthermore, a desirable state is assumed to be when there is high control under this model, taking into account that negative demands' positive moderator whereas it is likely possible that some people may not find job control to be a desirable aspect thus might find stressful. For instance, self-efficacy's lower sense being reported (Mark and Smith, 2008). Hence, the stress process' complexity is not clearly catered by this model however it could be effective if combined with other models of stress.

Perceived Organisational Support

According to Eisenberger *et al.*, (1986), the OST argues that organisations are assigned to have human-like attributes by employees thus tends to promote the development of perceived organisational support (POS) (Haque and Yamoah, 2014). Interestingly, Levinson (1965) argued that instead of personal motives, the agents operating on organisation's behalf are often viewed and perceived as working on intentions of the organisation. Additionally, organisation's personification further inclines due to its financial, moral, and legal responsibilities for its respective agent's actions through organisational culture, norms, and policies. Moreover, these elements tend to offer continuation and stipulation of role behaviours along with the organisational power agent has over other individuals within the organisation. It leads to developing a perception among the employees towards their respective organisations as of how they are, or the organisation will be treating them.

Organisational support theory argued that an employee's abilities for attaining desired outcomes through organisational support are restricted by the constraints of the organisation and environment because they are vulnerable to such constraints (Eisenberger *et al.*, 1986; cited

Haque and Yamoah, 2014). Hence, to further explore the notion, the POS concerning organisational commitment is evaluated in different sectors. The evidence from the education sector is that LaMastro (1999) found that teachers' experiences vary to a large extent. Conversely, Uchenna *et al.*, (2013) revealed that in the teaching sector, POS significantly affects the organisational commitment and performance of both teaching and non-teaching employees. Interestingly, there is no connection in these studies between stress and organisational commitment, considering the mediating or moderating effect of POS amongst teaching and non-teaching faculty.

Although different studies focused on different sectors, there is still no conclusive evidence from the education sector, particularly in a comparative analysis using institutional theory to explain whether organisational support is more closely perceived and associated with job satisfaction or employee engagement. Moreover, there is limited evidence in a comparative manner regarding the mediating and moderating role played by organisational support in occupational stress and organisational commitment.

The evidence from hospitality and tourism sector also showed that POS has a significant important role in the determination of the organisational commitment (Colakglu and Culha, 2010). Thus, it indicates that the higher is the personal attachment of employee towards the organisation; the better will be his/her performance because POS work as a defining factor. Nevertheless, the study findings of Kralj and Sonet (2011) reflect that not all employees in the hospitality sector is equally affected by the POS due to the age factor. Interestingly, the study found that old generation employees have higher POS in contrast to younger employees therefore older employees are more committed and engaged in their tasks in contrast to younger ones, having low level of commitment and engagement (Kralj and Sonet, 2011).

It is reflected from the above discussion that employee engagement is one essential development that leads to increase organisational commitment. Hence, it could be argued that there exists a relationship between employee engagement and POS. To further elaborate this linkage, different sectors are taken into account. For instance, from the banking sector, Hassan *et al.*, (2014) showed that employees receiving higher organisational support report higher engagement towards routine task and have higher job satisfaction. Furthermore, work of Mishra *et al.*, (2013) found that in both public and private banking sector, organisational support system is a driving force in creating employee engagement which is also the most critical factor for the business success. Thus, it reflects that irrespective of the type of bank, the

association between variables of interest is confirmed. Additionally, Alvi and Abbasi (2012) argued that in developing country such as Pakistan, employee engagement is evident to be increased among the banking sectors' employees through organisational support programme.

However, large number of studies has shown more drift towards finding job satisfaction in relation to organisational support rather than employee engagement. For instance, Wickramasinghe and Wickramasinghe (2012) in lean manufacturing industry and Judeh (2014) from the textile and clothing sector confirmed that organisational support programme is effective in increasing job satisfaction and higher performances at workplace. Thus, this study supports the notion of Eisenberger *et al.*, (1997).

Additionally, to briefly support the argument it can be stated that AC and POS has strong relationship in engineering and petrochemical sector. However, moving from private to public sector, the relationship becomes moderate or negative. Not only is the nature but there also inconsistent results regarding the visibility of the all antecedents equally. For instance, literature revealed that NC is less visible in the banking sector while AC and CC are more prominently visible. Interestingly, the variation is highly evident in the IT sector as non-financial rewards tend to increase JS while in the healthcare sector organisational support system leads to increase AC. Moreover, from the banking, insurance, pharmaceutical, and telecommunication sector, a strong and positive relationship is evident between NC and POS. Having said that, from the financial sector NC is not significantly linked with POS but AC and CC is significantly associated with POS. the CC is highly visible in the public sector due to POS while NC is lower. However, some studies showed no linkage of NC with JS or POS. Conversely, in the education sector, all three antecedents are found to some extent to be linked with JS and POS however in public sector it is relatively higher than private sector's employees. Furthermore, POS and OC have significant relationship which is exactly opposite in the hotel sector. Despite that, organisational support system has a positive relationship with OC in textile and lean manufacturing sectors.

Although, it can be argued that the literature at hand has only limited studies to establish the relationship between variables of interest in comparative economies. There is likely possibility that in the education sector of developed and developing countries may vary. Interestingly, now that OC and its antecedents are established with POS and JS in various types of sectors thus the study moves into the direction of examining the OC and its dimensions with occupational stress.

Job Satisfaction and Organisational commitment in various sectors

From information technology (IT) sector, evidence is presented by Martins and Coetzee (2007) confirming that when there is little or no JS then there are likely chances of low organisational commitment. Moreover, the study also showed that in the absence of JS, there is high employee turnover. Thus, it can be comprehended from the above evidence that in the absence of JS, there is a decline in the employees' continuance commitment. Additionally, Shaukat *et al.*, (2012) in the banking sector found that OC increases due to JS, especially when organisations provide adequate organisational support and supervision to its workforce. This above study finding indicates that all three types of commitment; AC, NC, and CC is positively associated with the JS in the banking sector. However, Waqas *et al.*, (2012) carried out in the education sector showed that job satisfaction among the teachers is higher due to organisational support at workplace and the JS leads to enhance the quality of services provided by these lecturers enhance at the university level. This is a significant study however; the study has only focused on the teaching faculty. There is a likely chance that the JS in relation to OC may vary to certain degree among the administrative faculty at university level. Moreover, as previously the literature review has indicated that stress may vary for persons in different types of job so this is likely possible that JS in relation to OC might vary significantly due to various stress for contrasting types of employees in contrasting economies.

Rothman and Coetzer's model (2002) showed that job satisfaction is significantly vital in the determination of the job's reaction. Moreover, the authors also stated that in the situation of appropriate organisational support's presence and provision to the employees the JS work as a mediator in the determination of organisational effectiveness. Thus, it reflects that the organisational effectiveness does rely to some extent upon the employee's content. Interestingly, Saar and Judge (2004) stated "the most productive employees are those who are happy with their work and organisations". Hence, it reflects that organisations are able to accomplish their goals and targets through employees' job satisfaction. Thus, it could be argued that organisational commitment is enhanced through various organisational support systems such as social support at workplace, proper training and development programme, work-life balance, provision of equipment and tools, provision of healthy and safe working environment, fair and transparent managerial practices, etc as these attributes leads to increase employees' job satisfaction (Haque and Yamoah, 2014). The evidence from textile industry is found from Miarkolae and Mirkolae (2014) that has confirmed that above mentioned organisational support features play constructive role in the creation of positive relationship between JS and

OC. Conversely, in the household sector, most of the attributes of organisational support programmes are not effective at all; particularly provision of healthy and safe environment as there is negative relationship evident from Rutherford *et al.*, (2010) among the salespersons working on commission bases.

Moreover, Robin (1993) argued that attitude towards the job is vital in the determination of job related satisfaction or dissatisfaction as those who report positive attitude towards job are satisfied while those who show negative attitude towards job tasks are not satisfied. However, there is no conclusive evidence whether the attitude determines job satisfaction or satisfaction leads to develop a certain type of attitude among the workers. Nevertheless, there are large number of empirical researches regarding job satisfaction's key attributes are present but interestingly, one of the most significant attributes that predicts job satisfaction is organisational support programme (Randal *et al.*, 1999; Rhodes and Eisenberger, 2001; Stamper and Jholke, 2003; Haque and Yamoah, 2014). Interestingly, Haque and Yamoah (2014) considered JS as a mediator for enhancing organisational commitment. Additionally, number of researches carried out after year 2000 confirmed that JS and OC are positively associated in the different types of organisational settings (Lam and Zhang, 2003; Karatepe and Uludag, 2007; Yang, 2010; Gulnu *et al.*, 2010; Haque and Yamoah, 2014). However, there is also the study in recent times as Ahmed and Yekta (2010) carried out a study in the cement factory which showed that there is no significant relationship between JS and POS.

Since, the present study focuses on the relationship between occupational stresses (OS) and organisational commitment (OC) therefore the linkage of JS with OC cannot be ignored during the investigation process. The inclusion of different types of personal variables was added to investigate the variables of interests. From GAS Model and psychological approach, a foundation was built but mainly the DRIVE model was taken into consideration with extension from Haque's different studies carried out on the topic to measure the impact of varying occupational stress on the distinctive antecedents of OC in complex environment; AC, NC, and CC respectively. Interestingly, a range of studies showed that occupational stress (OS)/ job stress and job satisfaction are negatively linked (Healy and Mackay, 2000; Sveinsdo, Biering, Ramel, 2006; Ahsan *et al.*, 2009; Khatibi, Asadi, and Hamidi, 2009; Haque and Oino, 2017). On the other hand, organisational commitment and job satisfaction are positively associated (Markovitz, Davis, and Dick, 2007; Lambert and Hogan, 2009; Garland, Mccarty, and Zhao, 2009; Khatibi *et al.*, 2009; Haque and Oino, 2017). Thus, there is no conclusive evidence regarding the nature of relationship between JS and OC and JS and OS within one framework

within the education sector while focusing on contrasting gender, faculty, and economies. Moreover, Khatibi *et al.*, (2009) argued that there is no confirm evidence regarding nature of JS to be consistent with OC in all types of sectors, particularly sectors providing services. Additionally, at present there is no conformity about the job satisfaction's nature with OS and all types of OC; AC, NC, and CC.

POS and AC

Organisational commitment is viewed by Allen and Meyer (1990) as a psychological bond between employees and their respective organisations. Affective commitment is the one of the three dimensions of OC. According to Allen and Meyer (1990), "AC indicates the employees' emotional attachment towards their organisation and they enjoy being affiliated with their organisation. Additionally, AC also demonstrates the individual's desire for staying with the same organisation" (p. 02). Interestingly, Eisenberger *et al.*, (1986) in the context of social exchange framework explained that high level of perceived organisational support (POS) enhances the AC among the employees.

From the petrochemical industry, it is evident that employees' affective commitment tends to increase due to the presence of perceived organisational support (POS) (Gukol *et al.*, 2012). On the other hand, from the engineering firm, it is found that POS is strongly associated with the employees' willingness to stay with the same organisations (Porter *et al.*, 1974). Furthermore, from the diary cooperatives, Driscoll and Randall (1999) reported that organisational support system prevailing and the belief of employees in it leads to enhance employees' attachment towards the organisations. However, Hemdi (2009) from the IT sector showed that there is no significant relationship between POS and AC whereas as Eisenberger, *et al.*, (2001) revealed that in the presence of a social identification with the organisation developed the positive relationship between AC and POS. Interestingly, Haque and Aston (2016) in the IT sector, found that AC and social support and AC and POS varies between males and females in the contrasting economies. Thus, this indicates that there are mix findings regarding the relationship. Interestingly, the recent studies of Haque *et al.*, (2016) concluded that occupational stress affects the AC of males and females differently in different economies. However, there is limited evidence from the education sector regarding POS and AC, particularly in the presence of occupational stress.

POS and NC

Bolon (1993) argued that normative commitment (NC) is obligatory feelings towards the norms of the organisations. Interestingly, Weiner (1982) explained it as the loyalty towards assigned tasks and norms of the organisation whereas Meyer and Allen (1991) considered it as “a feeling of obligation”. Nevertheless, Wiener (1982) argued that NC is resulting from the societal norms operating in the societies as family, marriage, religions etc are the attributes of societies to which individuals are drawn and therefore develops the normative commitment (cited Haque and Yamoah, 2014). In the same manner, the different attributes of the society have influenced the organisational commitment of employees as the workforce of organisations are constituted of the people from the society therefore at times some employees show more while others may show low or no moral obligation towards their organisations, depending upon their individual differences (Haque and Yamoah, 2014).

Hence, through norms' mutuality, the relationship between NC and POS could be further explained. Inducement and returning back of an individual are resultant of normative commitment. Therefore, in the due process of inducement-and-returning-back, there is likely possibility that employees experiencing specific types of experiences will be acting and reacting according to their experiences. For example, the obligatory feelings among the employees develop when the view that organisation is treating them in a fair manner or they are rewarded for demonstrating efforts and it leads to develop the feelings of returning back the favour to the organisation. Such feelings indicate that they are by nature merely obligatory (Haque and Yamoah, 2014). Therefore, it can be argued that employees feel they are obliged towards their respective organisations when they perceive that organisations' treatment is fair and good. Hence, it develops the feeling that being treated well needs to be returned by the individuals through showing that the tasks assigned to them by the organisation must be fulfilled by all means (Haque and Yamoah, 2014). Interestingly, Haque and Yamoah (2014) argued that in the presence of high NC, the employees do not think much about doing a certain thing is morally right or not, but they simply follow the procedures as obligation upon them.

Interestingly, out of all three dimensions of the organisational commitment, NC is evident to be studied and explored relatively lower in comparison to AC and CC. Thus, it is still an emerging concept requiring further investigation but from past Meyer and Allen's (1997) research is significant because this is the first conclusive evidence where NC is studied in relationship with POS. According to Meyer and Allen (1997), the psychological contract between employees and organisation engages employees to develop a belief that perceived

organisational support at workplace is existing thus in return fulfilling the organisational goals and objectives are due obligation.

Interestingly, a detailed exploratory study of Ucar and Ukten (2010) found the relationship between POS and NC to be positively linked in various sectors including; telecommunication, chemical, insurance, pharmaceutical, and banking sectors respectively. However, from the financial sector, Meyer *et al.*, (2002) reported that although NC does prove significant in attaining the desired organisational goals but in comparison to AC and CC, its relationship is relatively low with POS. Additionally, Ahmed and Yekta (2010) in the cement industry found that job satisfaction and employees' performances are not significantly affected by the NC as there is no relationship between POS and NC.

Etzioni and Gross (1985) argued that in order to ensure that employees' behaviours and attitudes are positively controlled by the organisations, they adopt different types of approaches. However, it depends upon the types of the organisations as there can be affective organisations and on the other hand normative organisations (Etzioni and Gross, 1985). One of the ways used by affective organisations to control the behaviour and attitude of employees uses increment in salary as an approach whereas recognition of employees and the special opportunities for the employee engagement and development are the approaches undertaken by normative organisations (*ibid*). Interestingly Ostroff (1993) found that teachers are more effective in their performances when there is POS as it affects their NC and JS in positive manner. Additionally, Reyes and Pounder (1993) found that in comparison to utilitarian value approach, teachers having higher NC along with higher job satisfaction due to organisational support. Furthermore, LaMastro (1999) found that teachers working at the university report highly professionalized commitment due to normative commitment. Interestingly, the normative view is argued by LaMastro's (1999) study as "teachers show 'sense of calling' by showing that it is a moral obligation to serve the institution, resulting from the effective organisational support programme" (p. 04).

POS and CC

According to Allen and Meyer (1997), a desire and willingness shown by the individual to continue with the same organisation is organisational commitment known as continuance commitment (CC). Interestingly, Haque and Yamoah (2014) consider staying with the same organisation is viewed by employees as long-term "non-transferable" investment. Additionally, the non-transferable investment is considered to be healthy relationship of employees with the

peers and other employees thus leading to long term stay (Reichers, 1985). Due to healthy relationship with others at the organisation makes it significantly difficult for the employees to leave organisation (Allen and Meyer, 1997). The two main concepts of continuance commitment include; alternatives and investments. Interestingly, Fredrick *et al.*, (2010) found that both argue that alternatives and investments are interlinked with the perceived organisational support. Moreover, the organisational support at workplace leads to develop the organisational culture that enhances CC. Furthermore, in the absence of alternatives and AC, there are likely chances of employees quitting the organisations.

Interestingly, Perry (1997) and Allen and Meyer (1997) showed that in comparison to private sector, the employees of public sector shows higher CC. Interestingly, Lio (1995) argued that job security is the main factor behind the employees' higher continuance commitment in the public sector. Furthermore, from the banking sector also it is evident that public sector's employees have higher CC in comparison to private banking sector (Suleiman, 2013). On the other hand, from the healthcare sector, the CC is evident in both private and public sector and it is positively associated with POS and Job satisfaction (Halepota and Irani, 2010). Additionally, same study showed that organisational support programme is positively associated with CC in public sector. On the other hand, a study conducted by Yanez and Figueroa (2011) revealed that in the public organisations (prisons) employees have higher CC due to JS due to presence of POS however, men report higher continuance commitment in comparison to women employees. Similarly, from the education sector, we found high level of continuance commitment is shown by employees of private institutions in contrast to private (Seidu and Boache-Mansah, 2012). Furthermore, males have higher CC than their counterparts (ibid).

From the various sectors relationship between POS, JS, and organisational commitment is established. Additionally, from education sector, these relationships are established (Ostroff, 1993; Reyes and Pounder; 1993; LaMastro, 1999; Malik *et al.*, 2010; Seidu and Boache-Mansah, 2012). However, the nature of relationship is inconsistent among the variables of interest. Nevertheless, one significant notion identified from the literature at hand is that organisational commitment itself is evident to be multivariate in all types of the sectors including education sector as largely it a result of job satisfaction. Furthermore, the antecedents of the organisational commitment are explored in association with the job satisfaction and actual and perceived organisational support programme in various sectors. It can be concluded

that not all these three antecedents have consistent relationship with JS or POS in any one particular dimension.

Role of Occupational Therapists:

Interestingly, CAOT (2010) stated that occupational therapist recognizes the employees' health and working environment by taking into account the various interacting factors. Interestingly, the choices, performances, organisational commitment, and job-related content is evident to increase due to the presence of occupational therapists at workplace to develop a linkage between workers and workplace (ibid). Furthermore, the work-related issues are addressed by the occupational therapist through their own professional approach as they consider the needs of the work, workers, and workplace all together (Townsend and Polatajko, 2007; CAOT, 2010; Haque and Aston, 2016). Therefore, it indicates towards the vital role played by the professional occupational therapist in reducing the occupational stress and improving the organisational commitment of the employees through looking after their wellbeing and health at the organisation. However, the analysis revealed that large number of studies that has considered the professional occupational therapist role inside the organisation in the developed countries. There is only limited evidence from the literature about role of therapist from developing countries. Interestingly, the comparative analysis regarding it in terms of economies is not sufficient. Nevertheless, studies have shown that although the role in western part is established but the effectiveness of role is still not explored to large extent while in eastern part the role is not very visible. Thus, there is a need of studies to explore it further.

Research Paradigm

Ontology, epistemology, and methodology are elements of research paradigm. Axiology represents the theme and aspects given preference over other. Two fundamental types of research include; 'applied' and 'basic' research whereas qualitative, quantitative, and pragmatic (mixed) methods are sub-categorization of research types. inductive and deductive are two types of research approach.

Kuhn (1962) used research paradigm word for the first time in his book "The Structure of Scientific Revolution" for defining theoretical framework (de Gialdino, 2009; MacKenzie and Knipe, 2009; Mack, 2010). Moreover, MacKenzie and Knipe (2009) argued that theoretical framework (research paradigm) reflects development, analysis, and interpretation of knowledge in a rational way. On the other hand, research paradigm contains three important

elements namely; ontology (reality); epistemology (perceived reality); and methodology (procedure) respectively (Mack, 2010). Additionally, Mack (2010) state that knowledge's reality is determine as ontological stance and knowledge's perceived reality is epistemological stance whereas technique or pattern undertaken during research is methodology. Together all these three components make research paradigm.

Before explaining the components of research paradigm, it is significant to understand the meaning and nature of research paradigm. Interestingly, Atieno (2009) also emphasized on the significance of understanding the nature of research in order to determine selection of research paradigm. Interestingly as oppose to Mackenzie and Knipe's (2006) types of research paradigm, Atieno (2009) argued that research paradigm includes; positivist, interpretive or constructivist, and critical paradigm. selection of these paradigm types depends upon the nature of research (Atieno, 2009). Nevertheless, Easterby-Smith *et al.*, (2015) concluded that scientific and socio-anthropological research paradigm are main types with all other types of research paradigm such as positivist, constructivist, etc are resultant of one of the two main types of research paradigm.

Epistemology

previous empirical researches reflect existence of relationship between research variables to some degree however there is higher degree of variation due to interpretation of results as per own understanding and limitation of commencement of study to context specific region. Therefore, through this epistemological stance, present research attains aim of assessing and evaluating the variation in the variables in comparative manner, considering distinctive economies. managerial literature at hand reflected knowledge explored in critical realistic manner in relation to the nature of association between research variable thus, present study undertakes critical realism ontological stance with objective epistemology by constructing theoretical and conceptual framework in an attempt to address research problem at hand.

Research Philosophy

Saunders, Lewis, and Thornhill (2013) proposed 'research onion' for explaining distinctive significant aspects of research methodology in separate layers. Interestingly, Saunders *et al.*, (2013) considered "research philosophy" important outer layer in research onion reflecting the theme enabling researchers in process of identifying the nature and development of background knowledge. On the other hand, Sekaran and Bougie (2010) defined research philosophy as

integral part in the research process because it reflects the knowledge and belief of a researcher. Furthermore, Cohen *et al.*, (2007) explained research philosophy by stating that it is undertaken to conceive knowledge in a narrow construct, reflecting researchers' preference for specific type of ideology and belief in carrying out research process. Interestingly, research philosophy provides guidance to the researchers in research process (Cooper and Shindler, 2006). Thus, it indicates that philosophy is part of research paradigm. Hence, research philosophy is a component of research paradigm that offers a theme or foundation for researchers to construct research process.

However, Gliner and Morgan (2000) found similar attributes between research philosophy and research paradigm. To support argument, authors stated perception, beliefs in accordance with reality, and model of individual observations respectively. Therefore, these authors emphasized on the notion that philosophy and paradigm is same concept with different names. Present study considers two terms as separate entities therefore considers Saunders *et al.*, (2013) "research onion" as vital concept to support argument. Interestingly, various scholars have criticised research onion by declaring it not vital however in social science discipline, it is effective in establishing gradual and systematic process for investigating research variables.

Interestingly, Marczyk *et al.*, (2005) argued that researchers undertake realism philosophical stance in an attempt of ensuring various distinctive theories opted so it could be tested meanwhile continue with development of new knowledge by expanding the realities in pragmatic manner. Conversely, Bryman (2012) explained that pragmatism philosophical stance is undertaken when researcher attempts to use and mix different techniques and tools in order to ensure results are valid and reliable. Hence, it indicates that triangulation process undertaken for exploring facts and findings in an attempt to attain valid and reliable conclusion is major theme under pragmatism and realism philosophical stance.

Bandaranayake (2012) stated that positivism philosophy follows laws of nature and reality while under interpretivism philosophical stance humans treated as social actors. Furthermore, realism and pragmatism philosophical stance core theme remains to be "independent of knowledge exist objects" therefore investigating research problem through combining interpretive and positivist philosophical stance. Additionally, realism and pragmatism to greater extent are similar because both use triangulation approach for exploring facts from different sources. In other words, realism philosophical stance serves foundation for pragmatism approach. Thus, study follows pragmatism philosophy by taking into account both

quantitative and qualitative tools and techniques with an attempt to extract "useful truth". Nevertheless, philosophy largely drifts more towards positivism, but it does not discard completely interpretivism. In actual, research starts with positivist stance while later support it with interpretivism. The investigation of research problem starts with exploring facts and findings from multiple valid and reliable sources so that quantitative and qualitative perspective attainment takes place. However, to larger extent positivist philosophical stance remains but in actual this research follows pragmatism philosophy.

Moreover, higher emphasis remains on the cultural and social experiences for drawing conclusion in qualitative manner (Marczyk *et al.*, 2005; Riemer *et al.*, 2012; Sekaran and Bougie, 2012; Saunders *et al.*, 2012). Therefore, the relationship explores for attaining qualitative aspect hence results examined by viewing individual experiences and perceived realities. Additionally, Mathew and Ross (2010) argued that there are various different types of cultures existing in the World and under interpretivism philosophy could be understood better because different perceptions, values, ideas, and experiences provide significant meaning through interpretation rather than statistical testing. Hence, the researchers aiming to explore phenomenon through interpretation rather than attaining numerical significance commonly undertake this type of philosophical stance.

Grounds for factual and useful truth in thesis:

Fact is something that cannot be rejected or disputed. Fact is established and are acknowledged while truth needs to be acknowledged. These are not concrete and therefore requires discovery. If a statement has strong reasoning, then it is reality. While if one contradicts the very same fact with strong logic then it is also a reality. When two ideologies with strong reasoning contradict then both statements are said to be co-existing with all their contradictions. Facts are less likely to be malleable.

In metaphysics and the philosophy of language, truth denotes assertions, thoughts, beliefs or propositions presented in general terms to state a case that is presented as in agreement with certain facts. According to Peters (2018) the pragmatic theory of truth proposes that a belief is true or not on the basis of its usefulness (or uselessness) in the world. If the truth does not have any practical application it is not necessary be regarded as truth. According to Korte and Mercurio (2017), meanwhile, pragmatism is based on three assertions:

- absolute agnosticism – “it is (also called hard agnosticism, closed agnosticism, strict agnosticism, strong agnosticism) is the belief that it is not possible to know whether a

god/gods exists or not” (Hurley, 1889).utilitarian truth - “In normative ethics, the view that a person should pursue his own self-interest, even at the expense of others, and to any ethical theory that regards some acts or types of acts as right or wrong independently of their consequences” (Buignan, 1989).

- emotional knowledge - “It is created by emotions and feelings plays an important role in making decisions, and in business behavioral” (Bratianu, 2018). It is central in determining the behavior at workplace and market (Bratianu, 2018).

Pragmatism has several consequences on that section of Philosophy that depends on the foundations of Theodicy and Ethics. But the coherence theory truth as defined in terms of pragmatic theory has no application in the ‘real’ world but only a function if that very idea could be used as a model for predictions in the future. This is the reason pragmatic truth pertains to that section of truth that is learnt through the interactions in the real world, and not only in principle. It could be argued that as long as the successful applications far exceed the unsuccessful ones (and with far less damage caused than benefits created), then the proposition could be regarded as having been ‘tested’ in a positivistic sense and qualify as ‘utilitarian’ (the principle on ‘the greatest good to the greatest number’.

However, there are numerous objections to pragmatism, particularly the possibility that a belief may work in a sense and fail in another, fail in one context and fail in another. Yet as Peters states (2018) pragmatism is a handy way of distinguishing true from the untrue in the sense that truth contains the possibility of producing predictable consequences in human life. It is therefore reasonable to focus on what works, being of considerable appeal in the fields of organisational behaviour and management. The theories of practice explain activities that are constantly performed, produced through entanglement of communities, action, materials, politics, tools, discourse and also agents. This perspective bridges differences in scientific paradigms, academic-practitioner interests and the theory-practice gap.

In our research we recognise both factual and useful truth, but our first priority is to establish factual truths concerning occupational stress, its consequences including for organisational commitments differentiated by gender, faculty (occupational segments in HE) in different economies. Having said that, the next step is to build on factual truth (numerically express relationships described with mathematical objectivity), crossing that grey line, which has been the reason for the confusion between the two. We remain interested in “useful truths” here explored through qualitative methods.

The fact of occupational stress has direct enough practical effects in the form of mental illness and a host of other consequences. It follows that the reduction or elimination of occupational stress has the kinds of practical effects which pragmatists seek. Factually speaking, organisational stress is the outcome of the organisational pressure, again to be expressed numerically in this study; similarly, the components of organisational commitment are quantified along with the causes and consequences of stress in terms of gender, faculty, and economies, which we seek to avoid usefully.

Type of Research

Additionally, Hogue (2011) explained that when an individual observes a certain phenomenon on consistent bases by being part of workplace setting then it works as a motivation because he/she views certain features on regular intervals. Thus, this motivation enables researcher in constructing conceptual framework in a particular manner by defining axiological stance. Furthermore, human satisfaction interlinked to keenness and curiosity hence search and explores the aspects to find answers to the questions that keep them at unrest (Hogue, 2011). On the other hand, Hogue (2011) explained that interest plays significant role in shaping axiological stance particularly in the extraction of literature researchers considers the types of past studies and empirical researches that they personally find attractive and similar to their liking. This way particular type of literature receives preference over others. For instance, some researchers aiming to conduct exploratory research prefer usage of descriptive surveys, reflecting their axiological stance. Nevertheless, humans cannot live in vacuum forever a universal truth as at some stage of their lives they do interact with other humans and things. These interactions lead to form intrinsic and extrinsic motivation for particular types of features, aspects, factors, etc. Internal value system affects the perceptions of the researchers and human values have strong linkage with formation of axiological view (Creswell *et al.*, 2009).

Advantages and disadvantages of Research Design

For instance, in true experimental research designs there is strong casual assessment and higher internal validity but slower in procedure whereas quasi experiment is speedy in comparison to true experiment but relatively lower internal validity (Trochin and Donnelly, 2006). On the other hand, casual assessment and lower internal validity evident in non-experimental research design but it is the quickest of all three (*ibid*).

Research Design

Interestingly, Mauz (2013) argued that researcher's axiological stance plays significant role in determining the type of research design. Additionally, consideration of any particular or mixed research design for investigating research problem depends on the axiological stance of researcher. Moreover, research variables in social science researches explored commonly through co-relational research design, meta-analytic, semi-experimental, descriptive, and experimental (ibid). On the other hand, Bryman (2012) argued that cohort, cross-sectional, cross-sequential, and longitudinal are types of research designs commonly considered in social science researches. Interestingly, Creswell (2012) argued that participant's grouping, respondent's selection, and construction of hypotheses are significantly important in considering specific types of research design. Nevertheless, Sekaran and Bougie (2007) stated that participant's availability, participant's attributes, timeframe, and measurement analysis techniques are important determinants of selection of research design. Moreover, Ader *et al.*, (2008) explained that purpose of research is vital aspect according to which fixed or flexible research designs often used in social science researches. Furthermore, Ader *et al.*, (2008) explained that experimental and non-experimental researches follow fixed research designs whereas case studies, grounded theory, and ethnographic studies follow flexible research designs.

In social science researches, panel approach undertaken for quasi-experimental studies (Power and Elliot, 2006). Interestingly, cohort studies are also known as quasi-experimental studies (ibid). Quasi-experimental design is most suitable when a researcher is aiming investigation of research variables in different time intervals in order to measure the variations by observing in different times lags (ibid). Interestingly, Sekaran and Bougie (2012) gave similar explanation for longitudinal research design. Thus, quasi-experimental is longitudinal research design. However, Shadish *et al.*, (2002) argued that true experimental research design is in actual longitudinal research design. Interestingly, Kendra (2015) posed an argument that when a researcher carries on for investigating research variables for number of years then he/she follows co-relational research design. Hence, co-relational and true experimental research design is also known as longitudinal research. Additionally, Christmann and Badgett (2008) and Kendra (2015) argued that longitudinal research design is to examine the variations taking place in different time intervals. Conversely, researchers aiming for investigating participants only once in a given time interval follows cross-sectional research design because it is for shorter time and only studies the events once.

Sampling Techniques

Simple random sampling is unrestricted sampling technique that offers higher generalization with least biases (Sekaran and Bougie, 2012). Nevertheless, Hair *et al.*, (2007) argued that although higher accuracy in selection pattern is key strength but the attribute of biasness is interlinked with this sampling technique (ibid). Interestingly, various authors argued that the sampling errors chances tend to reduce if the sample size is small but studying the events twice is not possible (Procter, 2003; Yates *et al.*, 2008; Sekaran and Bougie, 2012; Meng, 2013). In order to improve the efficiency of probability of sampling, researchers often prefer the usage of complex probability sampling to simple random sampling (Sekaran and Bougie, 2012). "Systematic sampling, stratified sampling, cluster sampling, area sampling, and double sampling are types of complex probability sampling" (ibid).

Systematic sampling follows the pattern of generating and drawing "nth" element in study design from the population through random selection (Sekaran and Bougie, 2012). However, systematic biases can incur in this technique as the selection follows randomly generated nth number and thus it is likely possible that some events may miss out in due course (ibid). Interestingly, Rose (2016) states that for the purpose of statistical analysis, it is the straightforward and simplistic probability sampling technique for determining sample size. Hence, in comparison to random sampling it is significantly simpler. However, number of authors confirmed that the generating procedure of "Nth" number and setting up of the intervals between two nodes are resultant of personal choice (Bajpai, 2010; Black, 2010; Sekaran and Bougie, 2012). Interestingly, Bajpai (2010) and Black (2010) argued that for using systematic sampling technique, it is essential to know the sample framework but knowing the entire list of the population is not mandatory in all types of researches. Furthermore, there is also a likely possibility of subjective limitation associated with this method as there may be under or over representation incurring when following specific list of population (Black, 2004; Ross, 2016). For instance, considering one organisation having more than 5000 employee whereas another may only have less than 50 employees hence "Nth" frequency can create a situation of over representation for large organisations while under representation for small organisations.

Extensive sampling is also a non-probability sampling that follows the pattern of census (Singh and Bajpai, 2010). Interestingly, it intakes only specific types of subjects that researcher is interested in and exclude those not relevant to the type of the study (ibid). Moreover, Black (2010) argued that it is highly effective but consume too much time because researcher is only

focusing on the key aspects thus requires to include only those subjects that has knowledge about the variables of interest.

Pilot Study

Any error in the instrument can cause the research in more than one way because research process is delicate, time consuming, and costly process thus pilot study helps in improving the quality of questions. Hence, through pilot testing the researcher ensured there is no double barrel or leading questions that confuse the respondents. Interestingly, Teijlingen van *et al.*, (2001) argued that often funding bodies invest large investment in researches therefore credibility of instruments is essential determinant and pilot testing helps in convincing funding bodies. Thus, the accuracy and feasibility of instrument improve by following specific required protocols. researcher learns about the way to develop realistic attempt in collecting the data from the sample size as it also helps in determining appropriate sample size (Teijlingen van *et al.*, 2001).

attitudinal strategies development becomes significantly appropriate and likely due to pilot studies (Teijlingen van *et al.*, 2001). For instance, researcher begins with either quantitative or qualitative methods and runs a trial version (pilot study) prior to the actual research on a larger scale. Through pilot testing, researcher may learn that selected method alone cannot bring effective results and there might be a need for inclusion of another method(s). Hence, research develops alternative approach at times due to running a trial version (Tashakkori and Teddlie, 1998). Hence, it is very significant attribute in selection and settling on the specific actual or/and additional instruments. Nevertheless, Teijlingen van *et al.*, (2001) argued that researchers sometimes use pilot testing as a meant to gather data and those gathered data facilitate researcher in structuring and designing the flow of the questions in an appropriate manner.

Ethical Consideration

There shall be no compromise on the ethical grounds in the research (Sekaran and Bougie 2012). On the other hand, Barnes (1984) argued that in the social enquiries often a situation arises where ethical compromise is unavoidable. Nevertheless, Resnik (2015) stated that perspective, procedure, or methods undertaken for operating and analyzing complex issues and problems specifically involving humans is regarded as ethics. For researchers the ethical consideration is one of the important and mandatory aspects in the research commencement

(Sekaran and Bougie, 2012). At any stage, there is a possibility of ethical dilemma arising due to tricky situations (ibid). Interestingly, professional, ethical, emotional, and physical dangers might arise in research (Lee-Treweek and Linkogle, 2000). Furthermore, danger and risk mitigation in the designing and planning stage of research enables researcher in developing risk analysis strategy, which effectively reduces potential risk (Lee, 1995; Craig *et al.*, 2001). Moreover, Appell (1978) argued that communicating ethical principles help researcher in addressing ethical issues. On the other hand, Reynolds (1975) suggests researcher shall maintain confidence in research to keep a balance between impartial objectives and valuing respondents' views whereas Diener and Crandall (1978) stated that reviewing and exposing findings and methods to the participants is effective obligatory measure taken by researchers as part of ethical consideration.

Various types of potential risks such as physical, psychological, and emotional risk may arise to researcher, respondents, and research itself. Hence, researcher shall follow and adopt appropriate guidelines and procedures in order to avoid and mitigate adverse effects or serious mishap on different stages of research through carefully planned ethical consideration (Guillemin and Gillan, 2004). Additionally, researchers in the research investigation process do encounter situations of ethical concerns and dilemma (ibid). In other words, researchers in social science researcher do come across situation having ethical dilemma. Furthermore, during qualitative or/and quantitative researches researcher comes directly or indirectly in contact with humans thus following adequate ethical procedures and guidelines are significant for researcher (Guillemin and Gillan, 2004). one of the prime principles of ethical consideration is maintaining confidentiality regarding information shared by the participants (ibid). Nevertheless, Guillemin and Gillan (2004) argued that any information must be disclosed to concern authorities if it may lead to self-injury or injury to anyone else.

Reliability

Therefore, the logical conclusion is resulting from the findings, which is reliable and repeatable in given setting. Moreover, Eisner (1991) argued that in both qualitative and quantitative researches require adequate approach for ensuring situational analysis, research instruments, and data analysis process are correct so that any type of confusion could be avoided. The researcher must maintain 'principles of reliability' throughout the process by stating clearly the research purpose and develop measures that similar findings will incur when measured over the time (Stenbacka, 2001). One could argue that reliability leads to generating and developing

comprehensive understanding. Nevertheless, the concept of reliability is often misleading and confusing in the qualitative researches hence researchers are required to ensure adequate means develop for keeping reliability in the research process (ibid). Furthermore, Patton (2002) argued that quality of the study is likely to improve with the higher level of validity and reliability.

Interestingly, Healy and Perry (2000) proposed argument, "the research quality retain and maintain by researchers through following credibility, neutrality, and conformability in the quantitative paradigm". However, Lincoln and Guba (1985) argued that for maintaining the quality researchers use reliability by developing consistency, transferability, and dependability in the process. Interestingly, consistency and dependability considered as factors of reliability by some of the authors for maintaining the quality of the research (Lincoln and Guba, 1985; Clont, 1992; Seale, 1999; Golfishani, 2003).

Validity

Additionally, the set of variables and the arrangement of questions were significant in exploring the research variables in depth rather than width. Moreover, for internal validity researcher used content and criterion validity. The precision and confidence in the research instrument increased through criterion validity as it was ensured that the instruments are accurate in measuring the research phenomenon and the actual concepts. Additionally, the alignment between segments of the questions in a questionnaire and intended respondents so that construct validity increases because the haphazard questions, double barrel questions, or leading questions create bias responses. Hence, researcher ensured there is no such question in the instrument. This reflects the construct validity. Moreover, the use of a literature for developing conceptual and theoretical framework and asking the questions to explore the knowledge of the participants are part of content validity in this study. automatic self-updating questionnaire and use of a direct mode (self-reporting) approach in the interviews are reflecting the qualitative validity in this study.

Nevertheless, if not to larger extent but to some limited extent there is a likely possibility of biasness in the research process hence it is vital for the researcher to that that biasness is reduced to maximum level or ideally avoided. According to Mizayaki and Taylor (2008), the chances of biasness in responses arise when researcher and participants interact. Additionally, Robert and Traynor (2006) stated that at times when a researcher offers any monetary rewards or incentives to the respondents for participation in the research process there is a possibility

that biased responses will emerge because in order to please researcher, participants alter their opinion under the impression that they are returning the favour against received incentives. Nevertheless, sometimes it happens unintentionally but it is very serious threat to the actual findings and the research process. On the other hand, McDonald (2000) stated that some researches require prior training of the participants before actual participation in the research. As a result, the researcher comes in direct contact with the respondents even before the actual research commencement process. However, this could also increase the response biasness. Thus, validity is vital for the research purpose.