Collaboration Between the Automotive and Public Transit Sectors to Enhance Sustainable Workforce Training and Development Opportunities in Detroit, Michigan

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Abstract

The purpose of this research is to answer the question of how collaboration between the automotive and public transit sectors can enhance sustainable workforce training and development opportunities in Detroit, Michigan. This collaboration can play an important role in making Detroit's automotive industry and community more sustainable from an economic, environmental, and social perspective. The research was conducted through qualitative methods from literature reviews and information collected in semi-structured interviews with subject matter expert participants in the automotive, public transit, government, academic, and non-governmental organization (NGO) sectors. The research indicates that this collaboration can improve the diversification of the local economy in Detroit, and help future-proof the automotive industry and workforce of the city.

Chapter One: Introduction

Detroit, Michigan, USA is often referred to as the Motor City due to it being a large manufacturing hub for the mass production of automobiles. Many factors, including increased global competition, have led to the Detroit automotive companies losing market share in recent decades (Klier, 2009). The economy in Detroit lacks diversification outside of the automotive industry, which means job opportunities and the overall economy have suffered because of the industry's market share decline.

Detroit's singular focus on the automotive industry and high private car ownership rates have played a role in hindering Detroit's development of public transit in the city and broader metropolitan area (Dutta et al., 2010). As public demand and environmental sustainability needs surmount, an opportunity exists for the automotive companies of Detroit to collaborate with the public transit sector for enhancing sustainable workforce training and development opportunities in the city.

This collaboration can increase public transit development, workforce training opportunities, and jobs for automotive workers in Michigan. This opportunity will prepare the city's workforce and automotive companies to take part in a more environmentally sustainable and socially responsible future. As one of the leading industries of carbon emissions in the United States, transportation companies must accelerate their adoption of sustainable practices (Poligkeit et al., 2023). My research focuses on aspects of the sustainable adoption journey for Detroit automotive companies related to public transit and workforce training and development.

It is important to define the two main subjects of this research. When discussing the automotive companies of Detroit, the research is referring to Ford, General Motors, and Stellantis (formerly known as

Chrysler), as well as the automotive suppliers that are based in metro Detroit. Michigan is home to 98 of the largest North American automotive suppliers, with 65 headquartered here, and 21% of all automotive production in the United States occurring in Michigan, according to the Detroit Regional Chamber. These statistics demonstrate the vast automotive ecosystem that exists in the state. When discussing the public transit sector, the research is referring to the agencies listed below that manage the main public transportation systems in Detroit. The information from this table is sourced directly from the respective websites of each transit system (DDOT, SMART, and RTA).

Transit System:	**Main Services:**	**Ownership:**	**Operated and Funded By:**
Detroit Department of Transportation (DDOT)	Buses and a fixed-route elevated rail system (The People Mover)	Public	The city of Detroit government, and a public-private entity that manages The People Mover
Suburban Mobility Authority for Regional Transportation (SMART)	Buses	Public	The county governments of Macomb, Oakland, and Wayne
Regional Transit Authority of Southeast Michigan (RTA)	Buses and a fixed-route streetcar rail (QLINE)	Public-private partnership	A Partnership between the RTA and a private NGO (M-1 Rail)

Strategic collaboration between Detroit's automotive companies and public transit agencies can serve as a catalyst for both workforce revitalization and sustainable mobility in Detroit. By identifying opportunities to align business objectives with social needs, this research aims to uncover practical and scalable approaches for workforce development that support economic and environmental resiliency. Through literature review and semi-structured interviews, the research explores how cross-sector partnerships can empower the city's workforce, strengthen the community, and position Detroit's automotive companies as leaders in the future of sustainable mobility through the development of public transit.

1.1 Aim and Objectives

The aim of this research is to answer the question of how cross-industry collaboration between the automotive and public transit sectors can enhance sustainable workforce training and development opportunities in Detroit, Michigan. This research is addressed through four objectives:

Objective One: Communities of Practice

The aim of this objective is to explore how knowledge sharing and cross-training between the automotive and public transit sectors can have a positive impact on the people and economy of greater Detroit through the creation of new and more sustainable jobs from an economic, environmental, and social perspective.

Objective Two: Shared Value to Create Community and Business Resilience

The aim of this objective is to demonstrate the opportunities for social well-being, job creation, workforce upskilling, economic resilience, and increasing market share for Detroit automotive companies through the shared value creation of community and business resilience. An important aspect of this objective is to demonstrate why the social and environmental investments into sustainable mobility is a smart business decision for the automotive companies of Detroit.

Objective Three: Sustainable Cities

The automotive industry has a big presence in Michigan, which provides them with the platform and resources to play a pivotal role in turning Detroit into a sustainable city through public transit development. The aim of this objective is to show how automotive industry investment into public transportation can increase workforce development and training opportunities, provide more equitable access to transportation and jobs, and promote economic and environmental resiliency.

Objective Four: Driving Sustainability and Engagement Through Stakeholder Involvement

The aim of this objective is to examine how stakeholder involvement can drive sustainability and engagement in the community and across industries. This is demonstrated through research on the economic value of sustainability and social responsibility for the automotive companies of Detroit.

The aim and objectives establish a foundation for the research by integrating perspectives on cross-sector collaboration, shared value creation, and sustainable development. Viewing the research through the lens of these objectives provides an analytical framework and focused approach for the literature review and semi-structured interviews.

Chapter Two: Literature Review

2.1 Importance of the Study

The importance of this study is to highlight the sustainable workforce training and development opportunities that are possible through collaboration between the automotive and public transit sectors in Detroit. The Detroit economy is largely linked to the performance of the automotive industry (Voytek & Wolman, 1990). The social and economic welfare of the city's residents and workforce are intertwined with the cyclical nature of the automotive industry; rising and falling with the number of cars sold by Detroit's automakers. Ford, General Motors, and Stellantis are often referred to as the "big three" in the automotive industry, referring to their global dominance of manufacturing cars (Ciraulo, 2009). However, their market share has steadily decreased in the last decades due to numerous factors that are outlined below.

Wrecked: How the American Automobile Industry Destroyed Its Capacity to Compete, is a book by Joshua Murray and Michael Schwartz that highlights some of the reasons for the decline in market share and competitiveness of Detroit's big three. The book takes the stance that as the United Auto Workers union grew in power and size, the Detroit automotive leaders took action to limit how vulnerable the business was to the demands of the union. The very workforce collectivism that grew out of and helped build the big three, was intentionally being undermined by the leadership of the companies. In an effort to diminish union power, the big three lost their innovative edge and ability to compete with increasing global competition. In a review of the book, the excerpt below explains one perspective on the decrease in Detroit's global market share dominance:

> *The story the authors tell about Detroit automakers sowing the seeds for their own competitive demise by building inefficiencies into their manufacturing systems in an effort to squelch labor power is compelling. And there is no doubt that by the late 1970s Detroit automakers became vulnerable to Japanese automakers practicing far more flexible and lean production systems (Rothstein, 2020).*

With financial struggles driving fear of factories being shut down and work moving out of the state to less expensive labor markets, unionized workers have grown reluctant to ask for too much (Lair, 2019). Globalization of the automotive industry and the cost cutting measures that came with it have impacted their bargaining leverage. However, as the largest working class union in the state of Michigan, the United Auto Workers is still a powerful and influential group in many ways.

Increasing global competition is often inevitable for companies at the top of any industry. While globalization may have contributed to the big three's market share decline, their inability to innovate and remain competitive is a more pertinent factor worth examining. The downfall of the big three's global dominance, competitiveness, and innovativeness has had a negative impact on the workforce and economy of Detroit. The city has suffered numerous consequences, such as job loss, depopulation, and social inequality (Ryan & Campo, 2013). While these are complex and multifaceted issues that go beyond the automotive industry, they have been exacerbated by the rise in unemployment, abandoned buildings, and people leaving the city for better opportunities elsewhere.

The state of Michigan is facing a population crisis largely due to migration. By 2050, the state of Michigan's population is expected to decrease by two percent, or about 200,000 people (Leach & Butler, 2025). "Since 2002, Michigan's population has experienced essentially zero growth. In fact, the state's population in 2023 was slightly lower than in 2004. Substantial out-migration contributed to Michigan's population decline in the years during and following the Great Recession" (Leach & Butler, 2025). This perplexing data has prompted the state of Michigan government to assemble a task force focused on growing the state's population.

The Growing Michigan Together Council is a bipartisan group of over 60 individuals focused on meeting certain population targets by 2050 (Wilkinson, 2024). Attracting and keeping working-age adults and families in the state is vital for the future workforce and economy. These factors are interconnected. Without a stable population, the automotive industry will struggle to hire adept talent. Without a strong economy and job market, it is challenging to keep working-age adults and families in the state. The state of Michigan also faces the challenge of losing a significant amount of in-state college graduates who leave the state upon graduating. This trend is known as "brain drain" and represents approximately 40% of Michigan's college graduates (Granger, 2016). These challenges relate to the importance of this study given that a strong talent pipeline is needed for Detroit to build a future-proofed workforce.

The collaboration between the automotive and public transit sectors to increase sustainable workforce training and development opportunities can have a positive impact on the state's population. Further emphasizing the importance of the study, this type of collaboration can address the following areas:

- Migration out of state and brain drain can be linked to lack of career development opportunities and appealing career paths. Increasing sustainable mobility within the automotive industry can

grow the innovative job prospects within the state, help future-proof the workforce, and attract and retain people in the state.

- Increasing public transportation in Detroit can provide more people with sustainable mobility options, particularly in underserved communities. Marginalized communities are often impacted the most by population decline, which can lead to high unemployment rates and a lack of education and training opportunities (Lee et al., 2017). If the automotive industry can use its platform to expand public transit offerings, it can lead to more equitable access to stable jobs and training opportunities.
- Automotive companies can diversify their business into public transit with the aim of economic development through training, connecting people with jobs, and sustainable mobility innovation.

There are many important factors that support the collaboration between the automotive and public transit sectors. By integrating sustainable mobility and workforce development, this partnership can attract and retain people in the state of Michigan, create more innovative and sustainable career options, increase access to training opportunities, and support economic development in the metro Detroit region. These factors will prepare the Detroit automotive industry and the city for a more environmentally, economically, and socially sustainable future.

2.2 The Need for Public Transit Development and How it Supports Job Accessibility

One of the main reasons public transportation development is needed in Detroit is due to lack of accessibility and connectivity. In a study funded by the Ford Motor Company University Research Program titled, *Towards Transit Equity in Detroit: An Assessment of Microtransit and Its Impact on Employment Accessibility*, the impact of hypothetical public micro transit options in metro Detroit is examined through the lens of accessibility. “The ease of reaching desired destinations such as employment, education, and health care has long been a pain point for cities like Detroit, Michigan, where communities experience drastic differences in accessibility based on location, racial and income classes, and auto ownership or transit dependent status” (Bills et al., 2022). The research showed that disadvantaged (low income and zero car) populations are most disadvantaged by lack of public transit options and stand to benefit the most from increased accessibility in metro Detroit.

With 31.5% of Detroit’s population living in poverty, that figure is significantly higher than the national average of 17.4% for major cities (U.S. Census Bureau, 2024). This data indicates the upside that public transit development can have for Detroit residents, providing them with better access to jobs. “The lack of public transit service serving low income areas to reach these jobs are the major obstacles that such

vulnerable groups face when trying to reach job opportunities in a region" (Boisjoly et al., 2017). Increased public transit accessibility can lead to better jobs and economic circumstances for the residents of Detroit.

2.3 The United Nations Sustainable Development Goals and Cross-Collaboration Between the Automotive and Public Transit Sectors

The United Nations Sustainable Development Goals provide a lens in which to look at this research through. The goals were launched in 2015 and "provides a shared blueprint for peace and prosperity for people and the planet, now and into the future" (The United Nations, 2025). The objectives of my research are connected to many of the goals outlined by the United Nations. The 17 goals address numerous economic, environmental, and social sustainability targets. The goals have been agreed upon and adopted by all United Nations member countries, and the deadline to achieve these goals is 2030 (Arora & Mishra, 2019). While the ambitious deadline is not going to be met, the goals still serve as a valid blueprint that countries, companies, and individuals should be working towards to create a better future (Arora & Mishra, 2019). Below is a graphic that highlights what the Sustainable Development Goals are.

Source: The United Nations, 2025

Making a case for more collaboration between the automotive and public transit sectors to increase workforce training and development in Detroit touches upon many of these goals. The main goals that relate to this research are listed below, as well as the definitions quoted from The United Nations:

- **Decent work and economic growth:** promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- **Industry innovation and infrastructure:** build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- **Sustainable cities and communities:** make cities and human settlements inclusive, safe, resilient and sustainable
- **Climate action:** take urgent action to combat climate change and its impacts
- **Partnerships for the goals:** strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Each objective of this research relates to one or more of these goals. None of these goals are possible without communities of practice, which is the first research objective previously named. While the sustainable development goals are rolled out on a global scale, localized efforts are required to achieve the targets. In 2019, the United Nations declared a decade of action related to the sustainable development goals, calling upon "all sectors of society (global, national, local, and individuals) to mobilize" (Annan-Aggrey et al., 2022). The call to action emphasized the importance of cross-sector collaboration to achieve the goals at a global scale, while still having local impact. "Collaboration or networking enhances the decision-making ability of local authorities, enhances resource capacity, and fosters greater political influence through strength in numbers" (Annan-Aggrey et al., 2022). Communities of practice are an essential part of working towards the sustainable development goals. The collaboration between the automotive and public transit sectors in Detroit exemplifies how sustainable development can be achieved at the local level through cross-sector collaboration.

The objective of shared value to create community and business resilience relates directly to the goal of decent work and economic growth through new and more sustainable training and development opportunities. This is a complex topic. While this research focuses on Detroit, it is important to acknowledge that the workforce of the Detroit automotive companies has expanded to places like Mexico for lower labor and production costs. Of all North American light vehicles, 20% are produced in Mexico, and global automotive makers have invested $24 billion in Mexican production facilities since 2010 (Swiecki & Maranger Menk, 2016).

While reviewing literature on training and development opportunities for the automotive workforce in Detroit, it's apparent that the wellbeing and treatment of the workforce not based in Detroit also needs to be considered when the big three work towards the goal of decent work and economic growth. As

American automotive companies moved more jobs to Mexico for less expensive labor, it gave company leaders more leverage to lessen the demands of United Auto Workers, who were increasingly fearful of their jobs moving to Mexico (Mancilla, 2024). While this shift has provided an influx of new manufacturing jobs in Mexico, it has left workers exposed to exploitative pay and labor practices, such as shutting down factories that explore the option to unionize (Mancilla, 2024). It is important to note that these are systemic practices across the global automotive industry and not exclusive to the Detroit big three. The top five car producers in Mexico are General Motors, Nissan, Stellantis (Chrysler), Ford, and Volkswagen (ProMéxico Industry, 2025).

The research objective of sustainable cities is directly derived from the Sustainable Development Goal of sustainable cities and communities. One of the targets of this goal is to "provide access to safe, affordable, accessible and sustainable transport systems for all" (The United Nations, 2025). By investing in public transportation, the automotive companies of Detroit can directly impact this target by reducing the need for car dependency, lowering carbon emissions, and creating more equitable job access. Becoming a sustainable city requires more than just infrastructure development. A skilled workforce is needed to meet the demands of the sustainable cities of the future. Collaboration between the automotive and public transit sectors to drive workforce training and development can help address this target at a local level in Detroit.

Environmental, economic, and social sustainability play a crucial role in developing sustainable cities. The cross-sector collaboration between the automotive industry and public transit sector offers numerous benefits in pushing Detroit towards becoming a more sustainable city, such as:

- Increased public transit options
- Less cars on the road, which helps from a congestion and carbon-emissions perspective
- Automotive companies can diversify their business offerings through future-proofed revenue streams in public transit
- New and sustainable job opportunities can retain and attract talent in the state, spurring population growth

A systems approach can serve as a blueprint for cities like Detroit to follow their journey towards sustainability. "Systems thinking is a way to understand the complexity of economic, social and ecological systems" (Williams et al., 2017). This approach can help identify areas of opportunity, as well as vulnerabilities, for this type of cross-sector collaboration in Detroit, where many interconnected

stakeholders are involved and impacted. To further guide cities on their sustainable journeys, the United Nations created the New Urban Agenda in 2016 to identify four focus areas for sustainable urban development. The four focus areas are:

> *"(a) a radical redesign of the multilateral institutional setup on urban issues; (b) promoting regenerative culture, behaviour, and design; (c) exploring ways to finance a systems approach; and (d) a new and enhanced role for science in sustainable development. The latter issue could be addressed through Future Earth's Urban Knowledge-Action Network, which aims at co-designing and co-producing cutting-edge and actionable knowledge for sustainable cities bringing together researchers and urban decision-makers and practitioners"* (Bai et al., 2016).

The last objective of this research, driving sustainability and engagement through stakeholder involvement, touches upon almost all key Sustainable Development Goals previously mentioned, however, it most closely aligns with partnerships for the goals. Stakeholder engagement is crucial in sustainable development, especially in the localized context of cross-sector collaboration in Detroit. Given the historical and economic significance of the big three automotive companies in Detroit, it is important to account for the potential power imbalance that could exist between the automotive companies and the other stakeholders involved in the process, especially people from marginalized groups in the community. The objective of this research has a significant impact on the community, therefore, it is essential that their interests and input are considered by the automotive companies.

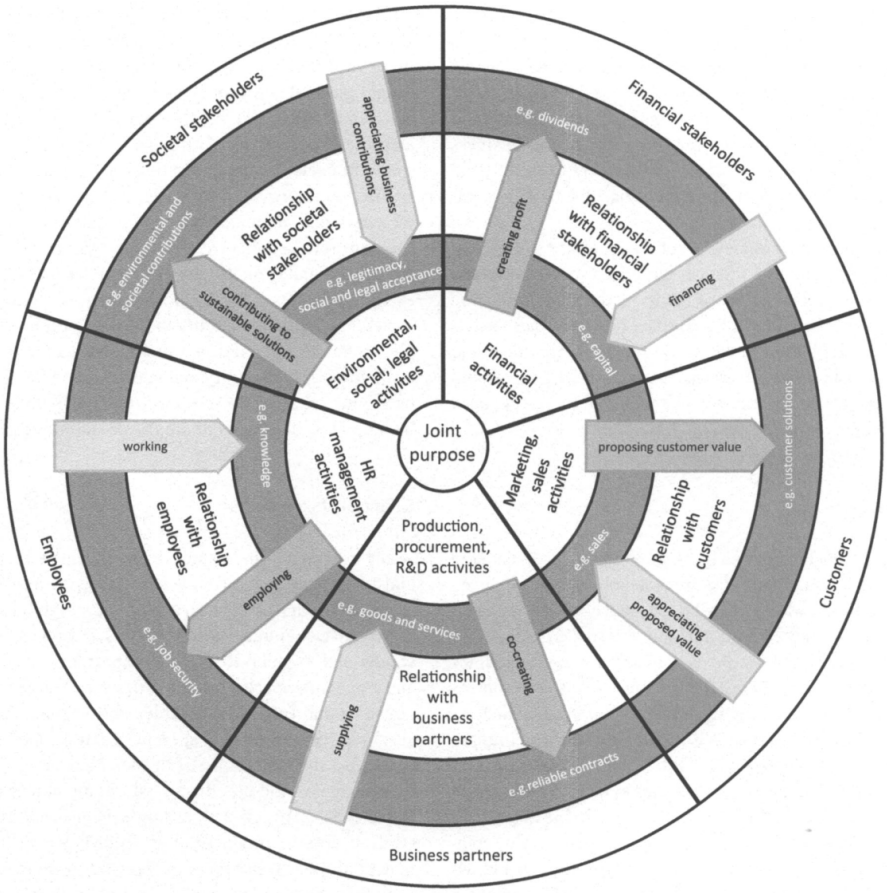
2.4 A Cross-Collaborative Stakeholder Approach

The book, *Strategic Management: A Stakeholder Approach*, was published in 1984 by R. E. Freeman, and serves as a reference for business ethics literature and how businesses should interact with various stakeholders (Stieb, 2009). An importance is placed upon engaging with stakeholders beyond just investors. In the case of automotive and public transit cross-sector collaboration, various stakeholders that need to be considered include:

- Big three automotive companies
- Public transportation agencies
- Ecosystem of automotive suppliers
- Automotive and public transit employees and relevant unions
- Local government
- Residents

- Local universities, NGOs, and special interest groups

Freeman's stakeholder theory suggests the use of value-creation stakeholder theory (VCST) to ensure a stakeholder-inclusive approach to firm decision making (Mitchell et al., 2015). More traditional stakeholder models put the firm as the focus of the analysis. "Our goal in developing the notions of VCSA is to conceptualize accounting for value creation as a genuine partnership between a firm and other risk-bearing stakeholders" (Mitchell et al., 2015). The VCST framework ensures balance and understanding of the value that is created for all stakeholders involved in the process. Below is a stakeholder value creation framework for business model analysis, which shows "multi-directional value flows and supports an in-depth analysis of what types of value a stakeholder relationship creates, with whom and for whom" (Freudenreich et al., 2020).



Source: Freudenreich et al., 2020

In consideration of VCST, a company's values and mission play a role in how they might navigate the stakeholder value creation framework. For example, the General Motors website states that their mission is: "a world with zero crashes, zero emissions and zero congestion. Our diverse team of over 165,000

employees brings their collective passion for engineering, technology and design to deliver on this ambitious future. And the bold commitments we've made are moving us closer to realizing this vision" (General Motors, 2025). This mission should be central in determining how they interact with stakeholders when working towards a joint purpose. Their mission indicates that safety, environmental sustainability, and social responsibility are their paramount focus, which aligns with the overall objectives of cross-collaboration with the public transit sector to create sustainable workforce training and development opportunities.

In summary, the review of literature demonstrates that a collaborative and stakeholder-inclusive approach is needed to advance sustainable public transit development in Detroit. Cross-sector collaboration between the automotive and public transit sectors provides a path towards achieving many of the United Nations Sustainable Development Goals focused on social, environmental, and economic priorities, such as increased access to jobs for disadvantaged populations. The literature also highlights that there are many complexities and ethical considerations that arise from this topic related to globalization, labor practices and power dynamics between stakeholders. The use of systems thinking and value-creation stakeholder theory can provide a critical lens of how to navigate these challenges in a way that is equitable for everyone involved. The review of literature shows that this cross-sector collaboration can future-proof the automotive industry in Detroit and better the community from a sustainability perspective.

Chapter Three: Research Methodology

The aim of this research is to answer the question of how collaboration between the automotive and public transit sectors can enhance sustainable workforce training and development opportunities in Detroit, Michigan. To answer this question, a qualitative approach was used to examine the previously mentioned research objectives.

A qualitative approach was chosen to gain detailed insights into subject matter expert perspectives. Data was collected from participants who were purposefully selected from relevant sectors, including automotive, public transit, academia, and NGO, to "best help the researcher understand the problem and the research question" (Cresswell, 2014). A semi-structured interview was conducted and consisted of predetermined questions and open-ended responses related to the objectives of the research. This provided insight into the participant experiences, challenges, and ideas for collaboration in the sustainable mobility space.

3.1 Semi-Structured Interviews

The semi-structured interview research was designed with questions linked to each of the four research objectives, as well as the overall theme of sustainable mobility and workforce training and development. Participants were selected based on their professional expertise. The interview design and implementation concluded after six interviews, when a point of saturation was reached and common themes and insights emerged during the interviews.

Three participants were from the automotive industry. Their experiences represent the unique landscape of the current automotive ecosystem in Detroit, which is still mostly dominated by well-established automotive manufacturers, however, a sustainable mobility startup scene is beginning to establish itself in Detroit. According to the 2024 Global Startup Ecosystem Report, Detroit was the seventh top emerging startup ecosystem in the world, and the number one emerging ecosystem in North America (Penzel & Katz, 2024). According to the report, the metro Detroit area scored highly in the Performance Factor Score, "which measures the impact of an ecosystem based on several components, including value created from exits, market reach, and the attraction and retention of startup-specific talent (e.g. founders, executives with startup experience, venture capitalists, etc.)" (Penzel & Katz, 2024). While challenges do exist for companies trying to establish themselves in Detroit, this data shows promise for growth, access to resources, and talent attraction in the region.

One participant was from the public transit sector and has advisory experience in the infrastructure and transportation sectors, as well as prior experience in local government transportation and urban planning. Two participants are from the academic field with experience at the University of Michigan's Electric Vehicle Center, one of which also has experience in the NGO sector specializing in sustainable mobility talent. All participants are based in the metro Detroit area, except for one who is based in New York City. This was intentional to ensure that perspectives and experiences outside of Detroit were also considered. The various backgrounds of the purposive sampling group provided unique perspectives on the research objectives. Their feedback guided my research and prompted me to look further into certain aspects of my research.

3.2 Procedural Methods

Before beginning the research, an ethics agreement was completed by the principal researcher to ensure that the research produces a beneficial outcome and does not harm anyone or anything. The OECD's Frascati Manual served as the ethical guideline for the research. The guideline is regarded as the internationally recognized approach for collecting and reporting research information (OECD, 2015). The

exercise of the ethical agreement form deemed the research to have minimal risk to the participants, principal researcher, and the university.

From a procedural perspective, the first step in the research methodology was creating a pipeline of potential subject matter experts to contact for interviews. This list was based on LinkedIn research through targeted searches of people in relevant sectors. Once the pipeline list was created, the targeted participants were contacted via LinkedIn. The rate of responses was around 30%, however, some of the contacts did respond but withdrew themselves from being considered. Ultimately, six contacts agreed to meet with me and participate in the research interview.

The six contacts were given the semi-structured questions and participation agreement form to be signed before the meeting, to ensure they understood the scope of what they were committing to. The participation agreement form outlined the details of the commitment, which included the purpose of the research and procedural details. The interview audio was recorded for research purposes to ensure accurate interpretation of the conversations. The audio recordings and data of the participants follow all required university and governmental data protection protocols in the United States and United Kingdom at the time of publication. As outlined in the participation agreement form, participation in the interviews was anonymous and voluntary, meaning that participants could withdraw their involvement at any time. To protect the anonymity of the six participants, they will be identified by a participation number ranging from one to six in the Interpretation of Results section.

Once the interviews were complete, the recordings were transcribed and the analysis of data began using the Braun and Clarke six-step process in thematic analysis. “Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail” (Braun & Clarke, 2006). The table below outlines the six steps of analysis that were followed for this research:

1. Familiarizing yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.

3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Source: Braun & Clarke, 2006

These procedural methods were selected given their relevance to the nature of this study and the anticipated possible outcomes. These approaches are common for this type of research paper which is why other methods were not considered. By following the OECD's Frascati Manual, the research followed a credible international standard of ethics for research of this kind. The Braun and Clarke six-step process in thematic analysis ensured that thorough research was conducted to produce justifiable patterns and outcomes.

These procedural methods also helped to mitigate bias in the research process. By selecting participants from diverse backgrounds and following standard ethical guidelines, various perspectives were represented in the questionnaire. The participants come from various sectors and educational backgrounds, which minimized bias in the thematic analysis. The six steps of the thematic analysis provided a guide for objectively identifying the patterns within the research interviews, rather than relying on the personal perception or bias of the principal researcher.

To demonstrate full transparency of the research, it is important to address certain factors that played a role in the limitations of the study. The foremost limitation is the sample size of research interview participants. Due to the research being focused on the specialized topic of sustainable mobility limited to the geographic location of Detroit, the number of possible participants was restricted. This also ties into the limited data available on this topic due to the geographic constraint and lack of public transit development in Detroit. Due to this factor, this research has a strong reliance on self-reported data.

Other factors worth mentioning are changing economic and political influences. At the time of publication, economic tariffs are being proposed by the United States federal government, which can potentially impact the automotive industry, job market, and economy of Detroit. The outcome of these economic and political shifts is unclear and limited research is presently available, therefore, these factors are being excluded from consideration for this study.

Chapter Four: Interpretation of Results

4.1 Introduction

Through review of the semi-structured interviews, key themes emerged in the research as the main opportunities and challenges in achieving collaboration between the automotive and public transit sectors to grow workforce training and development in Detroit. The results draw on insights from the semi-structured interviews with the subject matter expert participants and build upon what came forth in the literature review. The themes provide an understanding of the current landscape and highlight the areas where new ideas could lead to further collaboration and development for Detroit's evolving mobility ecosystem and workforce.

4.2 Presentation of Results

Community Engagement

The foremost insight that emerged from the interviews is the necessity of community engagement in the process of cross-sector collaboration. The review of literature shows ample research exists on the business case for corporate social responsibility (CSR). "Companies are assessed not only on the financial outcome of their decisions but also on the ways in which their companies measure up to a broader set of societal expectations" (Waddock & Graves, 1997). There is evidence to support that CSR should be part of corporate strategy and decision making, however, research is lacking on the correlation between CSR and community engagement (Bhinekawati, 2018). One objective of this research is to demonstrate that

community engagement is a necessary and positive aspect of CSR and should be a key tenant of collaboration between the Detroit automotive companies and public transit sector.

Corporations often have the platform and resources to address environmental, economic, and social sustainability challenges within communities. An example of this came forth in the interviews from participant number two regarding Detroit-based startup, JustAir. According to their website, "JustAir partners with governments, residents, and health institutions to provide a comprehensive air quality management platform". While they are not a traditional transportation company, **participant number two views them as part of the industry given that they provide a platform for the transportation of information, which can help curb transportation carbon emissions and improve air quality in the city**. Aside from just providing technology solutions, JustAir partners with the community to raise awareness and enable change. Their website states their mission is:

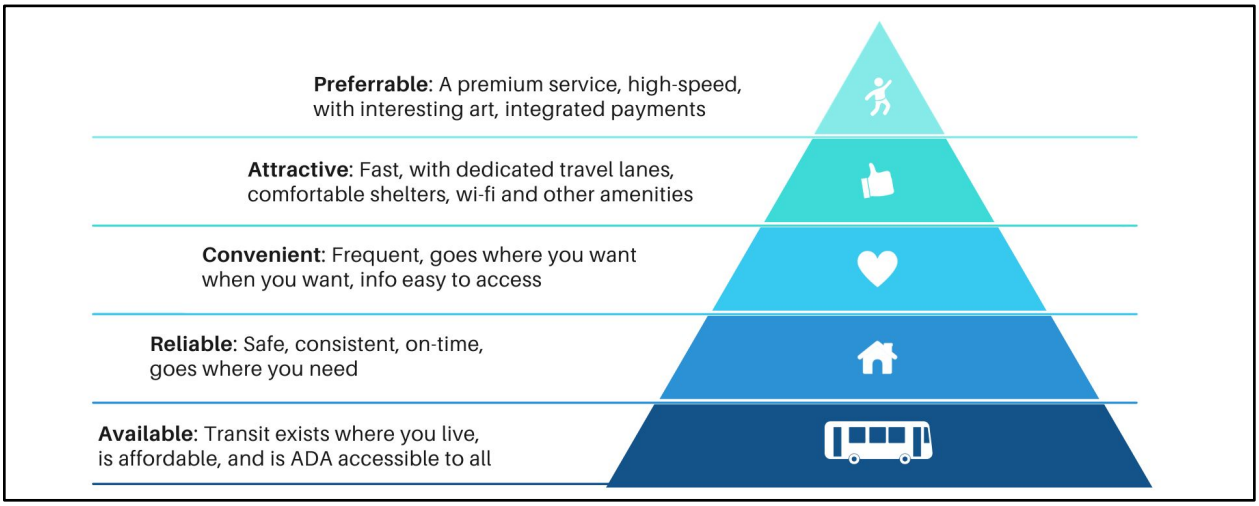
> *"To protect the 20,000 breaths each person takes every day. We put air quality data into the hands of communities to increase well-being and drive positive, locally-led change. We do this by building trusted partnerships, providing accessible air quality insights, fostering community-led action, and growing a team that puts our values into practice every day".*

The mission aligns their business goals with social benefits, showing how CSR can create shared value and grow sustainable mobility in Detroit. **One specific example that was noted by participant two is a project between Just Air with a resident-led community organization to track industrial trucking traffic and correlate it with air quality data, providing evidence for the community to advocate for change.** This has enabled them to work with the local government and trucking companies to find alternative routes in areas with less residential density. JustAir is creating a better quality of life for residents and spurring trucking companies and local government to prioritize environmental sustainability and the wellbeing of the community.

The interviews confirmed that there are community needs and demands for increased public transit. A resource that was mentioned by three of the interview participants is the Detroit Department of Transportation (DDOT). In the 2024 Detroit Department of Transportation (DDOT) Reimagined Report, it was noted that ridership has steadily declined in recent years. "People consistently choose other modes of transportation as they become available, demonstrating that public transit fails to meet customer expectations. DDOT seeks to reverse this trend by making service more reliable and more attractive to current and potential riders" (DDOT, 2024). Additionally, in The State of Transit 2025 report by

Transportation Riders United (TRU), they found that transit in greater Detroit "has been severely underfunded for decades, with the region investing a fraction of what other regions invest, so our transit agencies have long provided only a very modest level of transit service" (Transportation Riders United, 2025).

TRU is a Detroit-based NGO dedicated to transit experience advocacy in the region. In their report, they developed a Hierarchy of Transit Needs (shown in the figure below), which outlines that getting the basics right is at the foundation of building a high quality public transit system in the greater Detroit region. The report cites that accessibility, reliability and frequency are the core elements of quality public transit.



Source: Transportation Riders United, 2025

Adequate research exists on the topic of how to improve public transit in Detroit. The needs are clear, however, multiple interview participants highlighted that funding constraints, fragmented efforts, and limited operators in the workforce are some of the reasons holding back progress. Participant number five discussed an aspect of talent development that needs to be addressed regarding Detroit's future workforce. This participant works in the academic space and often sees interactions between students and automotive manufacturing companies for internships and research projects. **This participant shared that they receive regular feedback from companies that there is a soft skills misalignment between rising university talent and the demands of the industry due to differing expectations and preferences between younger workers and traditional manufacturers such as work from home desires versus working on-site. Participant five believes cultural alignment is crucial to address this.** Manufacturers must adapt to evolving workforce values or risk losing out on the top talent of the future workforce.

The opportunities and challenges outlined in this section could in part be addressed through strong community engagement and public-private partnerships. The big three automotive companies have the platform and resources to help address this opportunity for the betterment of the community and to future-proof their business. This links to the next theme that emerged in the research.

Public-Private Partnerships

The European Commission defines PPPs as "forms of cooperation between public authorities and the world of business that aim to ensure the funding, construction, renovation, management and maintenance of infrastructure for the provision of a service" (Ke et al., 2024).

An element of PPPs that came up in the participant interviews is the importance of government involvement in ensuring environmental and social sustainability progress. While multiple interview participants believe that more companies are incorporating environmental, social, and governance (ESG) practices into their growth objectives, research from the literature review states that "many executives believe making that growth sustainable and inclusive requires inscrutable trade-offs, forgoing revenue and profit for the sake of society and the planet" (Doherty et al., 2023). This raises the question if government regulation is necessary for getting corporations to conduct themselves in a way that, at a minimum, does not harm the environment, and at best, helps to advance environmental sustainability within society. "As global challenges such as climate change, resource depletion, and social inequality intensify, government regulation becomes increasingly vital in driving corporate behavior towards more responsible and sustainable practices" (Collison, 2024).

All interview participants believe that effective government regulation and partnership can have a positive impact on the collaborative development of public transit in Detroit. However, city, state, and federal administrations change often in the United States based on election cycles. **As noted by participant number three, new administrations can bring forth varying degrees of ESG prioritization and regulation which can impact corporate sustainability initiatives.** This participant works for a global automotive supplier in Michigan, and their organization is currently re-evaluating their ESG initiatives due to political factors. While government regulation should be leveraged to hold corporations accountable, it should not be the only answer. As evidenced through successful PPPs, shared accountability between government, corporations, and community is vital for long-term progress.

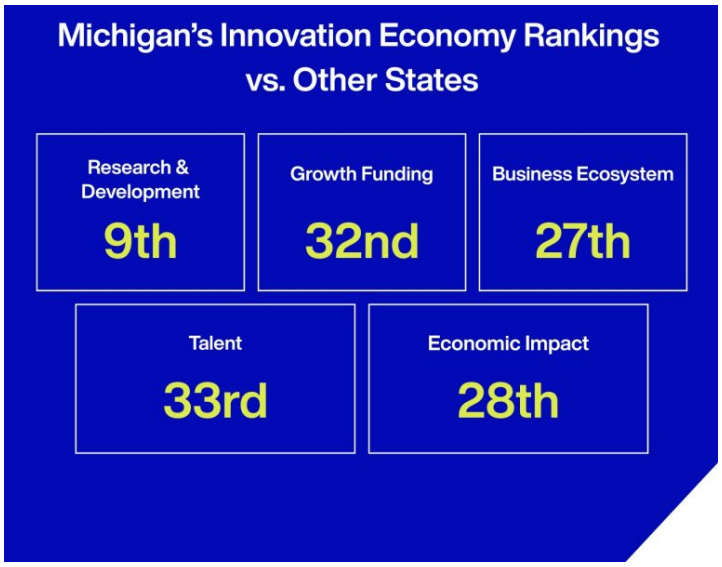
All interview participants also believe that NGOs and academic institutions can play a role in the success of PPPs. **The two interview participants who work in academia shared that academic institutions often get funding and resources for conducting research on specialized topics.** This is something that corporations and governments may be limited in doing due to workforce, time, or budget constraints. For NGOs and academic institutions, PPPs can play a crucial role in getting funding and resources. "By aligning their missions with the objectives of potential partners in the private sector, NGOs can create synergies that drive sustainable impact" (Funds for NGOs, 2025).

An example of this was shared by participant number five. The University of Michigan Electric Vehicle Center (UMEVC) was established as part of the university's College of Engineering and is funded through a 130 million dollar investment from the Michigan Department of Labor and Economic Opportunity (LEO). The center is well-funded and has vast expertise on cutting-edge technology and practices within sustainable mobility, making them a strong resource to be leveraged by the private sector for collaborative research. Public and private organizations can benefit from the resources of UMEVC, while the university benefits by expanding their research, experience, and credibility. This drives their ability to attract funding and top research talent.

The Role of Technology and Innovation

Innovation and technology are driving forces behind sustainable mobility, which came up often in the participant interviews. This theme is also strongly linked to workforce training and development opportunities in Michigan. The state has a talent pool with strong automotive knowledge due to the presence of the big three and suppliers, however, participant feedback shows that ample opportunity still exists for the state's leading industry to future-proof their business and workforce through further embracing technology and innovation.

Participant number six referenced a scorecard by Business Leaders For Michigan, where the state's innovation economy was benchmarked against the rest of the country to help create an action plan and monitor performance. The report "includes an assessment of the full range of stakeholders in a dynamic economy, from universities and startups to established companies" (Berris, 2025). The graphic below, taken directly from the report, shows some of the key findings of how Michigan ranked among the 50 states:



Michigan is only in the top half (ranked 25th or better) in Research & Development. The other categories of Growth Funding, Business Ecosystem, Talent, and Economic Impact found Michigan in the bottom half of the rankings. Improving upon these areas and becoming a more attractive place for business and talent can help address the population crisis that the state is facing. "Steps taken thus far include strong bipartisan measures to invest in training and degree programs and setting a goal of having 60% of the working-age population with a degree or credential by 2030" (Berris, 2025).

Automotive manufacturing is the leading industry in Michigan, and according to Michigan's Department of Technology, Management & Budget, jobs in this sector must evolve through increased training and education as technology becomes more advanced (Gandhi, 2023). **In reference to this point, participant number one discussed It'sElectric: a Brooklyn, New York and Detroit, Michigan based start-up that provides curbside electric vehicle charging infrastructure in cities.** To meet the demand of a modest scenario of 33 million electric vehicles on the road in the United States by 2030, 28 million charging ports need to be added across the country (Squires, 2023). As It'sElectric grows their business to help support this demand, they need to have adequately trained technicians who can install and maintain charging infrastructure.

It'sElectric's Detroit office is based in the Michigan Central building, which is an "ecosystem combining Detroit's rich history and its commitment to shaping the future of transportation worldwide to form a global hub for mobility innovation", according to the Michigan Central website. The project was funded and developed by Ford and opened in 2024. Three interview participants referenced Michigan Central as being a key driver of technology, innovation, and talent development for the city's mobility ecosystem.

Participant number one also mentioned that Michigan Central has partnered with Los Angeles-based start-up, ChargerHelp, to train future electric vehicle supply equipment (EVSE) technicians in Detroit. According to the ChargerHelp website, the training is free and available to those who meet the following criteria:

1) Resident of Detroit
2) Able to read at a ninth-grade level
3) Possess a high school diploma or GED, however, if you do not fulfill this requirement but do meet the other two, the program can help you obtain a GED through a partnership with the city government's employment office

It'sElectric hires graduates from this six-week program to support the growth and maintenance of their EVSE infrastructure. This type of public-private partnership training program is paving the way for Detroit's workforce to be part of a more sustainable and innovative future. This enables It'sElectric, ChargerHelp, and Ford to meet the growing demand of EVSE expansion in the United States.

Creating adequate charging infrastructure to support personal charging needs, as well as public charging needs for transit such as electric buses, is essential to increase sustainable mobility access and flexibility. "The United States electric bus market size is estimated at 468.6 million USD in 2025, and is expected to reach 820.6 million USD by 2029" (Mordor Intelligence, 2025). While many traditional automotive manufacturers have increased their production of electric vehicles and made commitments to research certain electrification goals for their car fleets, few have ventured into the production of electric buses or rail transit. **As quoted by participant number four, "automotive companies are often driven by market demands and regulations, rather than intrinsic values"**. Outside of Detroit, other traditional automotive companies have successfully diversified into mass transit, showing that the demand is there. This could serve as a blueprint for the Detroit automotive companies.

German automaker, Mercedes-Benz, has entered the electric bus space with their majority-stake ownership of Daimler Truck. The bus division started producing the Mercedes-Benz eCitaro city bus in 2018, according to the Daimler Truck website. This venture has been a success for Mercedes-Benz from an economic and innovation perspective. Buses were the best performing and only growing division within Daimler Truck in 2024, with a two percent increase of units sold and a revenue increase of 15% compared to the prior year (Sustainable Bus, 2025).

According to the Daimler Truck website, electric buses are part of their strategy for “multi-faceted electromobility from a single source”, which allows them to not only manufacture electric buses, but provide end-to-end electric mobility ecosystem solutions to their clients. Their clients will benefit from having one point of contact for their electric mobility ecosystem needs, with offerings ranging from “individually configured electric buses to the complete infrastructure for the depot, including construction measures, electrical installations, chargers, battery storage, charging management system and other digital services” (Daimler Truck, 2025). This approach puts majority-stake owner, Mercedes-Benz, in a competitive position as more than just a traditional automotive manufacturer. By offering comprehensive electric mobility solutions, they are aligning with broader sustainability goals and meeting the increasing demand for efficient and zero-emission public transport systems. Mercedes-Benz is future-proofing their business and workforce through sustainable innovation and revenue diversification.

Another traditional automotive manufacturer that has ventured into the electric bus space is Swedish brand, Volvo. They partnered with global consultancy firm, KPMG, on a study that builds a business case for the adoption of electric buses. The study states that one of the main challenges for electric buses gaining market share in city transit is that investment decisions made by governments or transit agencies are often solely focused on direct financial costs. Available data is often missing on the costs related to the social and environmental impacts of such decisions (KPMG International, 2015). The study with KPMG provided a way to demonstrate the economic value of electric buses by quantifying their social and environmental impact.

The main takeaway from the study is that the true cost of ownership for electric buses is less than that of diesel buses when the quantifiable social and environmental impacts are considered. Electric-powered technology for buses can lead to a decrease in ownership cost over time, while diesel-power can lead to cost increases over time with the environmental and social impacts considered. If the country of Sweden implemented all electric buses country-wide, 40 million euros could be saved in public healthcare costs due to the environmental benefits of less carbon emissions. The study calculates that this implementation could lower carbon emissions by 84,000 tons per year. The outcomes of the study reveal that electric buses can offer quantifiable economic, environmental, and social value. This data can help shift the mindset of decision makers about public transit bus fleets. It can also show other automotive companies, such as the Detroit big three, that viable business opportunities exist in manufacturing electric buses and ultimately, playing “a key role in developing the sustainable cities of the future” (KPMG International, 2015).

4.3 Current State Analysis and Main Challenges

The participant interviews provided insightful information about the current state of the automotive and public transit sectors in Detroit. The interviews illuminated the strong foundation of interest and activity related to sustainable mobility in the city. There are many successful initiatives happening, however, in relation to developing public transit services, the initiatives are often fragmented or met with resistance due to various reasons.

Due to the large presence of the automotive industry in Detroit, there are many individuals and groups who are passionate about transportation and knowledgeable about industry trends. This leads to both formal and informal communities of practice. A few key industry organizations, advocacy groups, and NGOs emerged from the interviews that are fostering formalized communities of practice and knowledge sharing regarding sustainable mobility innovation and workforce training and development in the greater Detroit region.

Participant number five referenced the Global Epicenter of Mobility (GEM), which is a program created by the Detroit Regional Partnership, an NGO, whose vision is to help build a "smart, secure, sustainable, and advanced mobility industry" in southeast Michigan (Global Epicenter of Mobility, 2025). According to their website, the program is funded through a 52.2 million dollar grant from the United States Economic Development Administration and their objectives "stretch well beyond the automotive industry as advanced mobility technology evolves to move people and goods in new and exciting ways". Another NGO driving change in greater Detroit is the Southeast Michigan Council of Governments (SEMCOG). According to their website, "SEMCOG is a voluntary association of local governments fostering cooperative efforts in order to move Southeast Michigan forward".

Organizations like GEM and SEMCOG exemplify how structured communities of practice can serve as powerful catalysts for cross-sector collaboration in Detroit's sustainable mobility space. By bringing together regional stakeholders around shared goals of transit innovation and accessibility, these organizations can bridge the gap between the automotive and public transit sectors. Their efforts can ensure alignment on policy, training and workforce development, and stakeholder feedback from industry leaders and community advocates.

Through the development of communities of practice, these types of organizations represent a big opportunity for driving collaboration between the automotive and public transit sectors. However, the

interview results also show that complex challenges need to be addressed for this collaboration to be successful. While these sectors share many objectives, such as electrification and mobility access, there is currently limited interaction between the big three and public transit agencies in Detroit. This fragmentation makes it challenging for them to collaborate on transit development and overlapping workforce training and development opportunities.

The interviews exposed some reasons why this fragmentation may exist. Innovation requires new skills and training. Cross-sector workforce development between the automotive and public transit sectors does not appear to be happening currently, which may hinder the innovation needed for this collaboration to be successful. Additionally, infrastructure in metro Detroit is not well suited for mass transit and it would take significant investment to attract involvement from the private sector. This is especially true for the development of rail transit due to the lack of infrastructure. Until Detroit's public transit system is better developed, it is unlikely to see the private sector getting involved in a significant way. Furthermore, multiple interview participants noted that shifting political priorities and regulatory uncertainty are weakening corporate commitment to long-term sustainability efforts. Inconsistent federal and state policies can disrupt funding and planning, with many initiatives relying on ad hoc grants rather than long term support. This can undermine momentum related to public transit and workforce development.

Chapter Five: Conclusion

5.1 Discussion of Results

This research set out to answer the question of how collaboration between the automotive and public transit sectors can enhance sustainable workforce training and development opportunities in Detroit, Michigan. The results highlight that there is potential to achieve this objective, however, there are several key barriers prohibiting this from happening in a scalable and impactful way. While there are fragmented groups and projects already focused on this topic in greater Detroit, a more systemic and integrated approach is needed to support sustainable workforce resilience and public transit development. The literature review and participant interviews indicate that achieving this will require substantial shifts in leadership priorities, regulatory alignment, and investment in infrastructure. Currently, these barriers seem to be limiting the interest of Detroit's automotive companies from working with public transit agencies at a scale that is needed to have an impact.

For Detroit to become a sustainable city of the future and for the big three to play a role in this journey, community engagement and stakeholder collaboration are essential. The big three can achieve this

through strategic CSR initiatives and collaborative stakeholder engagement that ensures inclusivity and alignment in the decision-making process. The previously outlined examples of It'sElectric and ChargerHelp demonstrate the potential impact that community engagement and effective CSR execution can have on growing local economies, providing workforce training and development, and contributing to environmental sustainability goals.

PPPs have proven to be effective, as outlined in the example between the University of Michigan Electric Vehicle Center (UMEVC) and Michigan Department of Labor and Economic Opportunity (LEO). These types of partnerships have the potential to be impactful in Detroit. By leveraging the strengths of businesses, government, NGOs, and academic institutions, the various stakeholders can work together to improve sustainable mobility, drive innovation, and create new economic opportunities.

The research revealed how traditional automotive manufacturers like Mercedes-Benz and Volvo have successfully diversified into the electric bus market, creating not only new business revenue streams but also workforce training and development opportunities. These ventures showcase how embracing sustainable mobility can help companies future-proof their business while addressing challenges facing society.

It would take significant capital and time for any of Detroit's big three to break into the electric bus market. The manufacturing start-up costs, talent needs, and expertise are not within their current scope. However, a viable option to get into the space is through acquiring companies that are already manufacturing electric buses. The number of North American electric bus manufacturers has increased in recent years as well as the number of electric buses purchased by transit agencies, and these numbers are expected to grow (Expert Market Research, 2025). Seizing this opportunity can potentially lead to new jobs and training opportunities that contribute to environmental sustainability while also helping to future-proof Detroit's workforce. "Corporate acquisitions are the principal vehicles by which firms enter new product markets and expand the size of their operations" (Salter & Weinhold, 1979). Due to the high barriers of entry into new lines of business, acquisitions can be a more viable option for the big three to venture into electric bus manufacturing as opposed to developing the solutions and expertise internally.

The concluding point of the discussion of results is how the themes that came forth in the study relate to creating sustainable workforce training and development opportunities in Detroit. By collaborating with the public transit sector and investing in public transit development, the automotive industry of Detroit can create a future-proofed workforce that makes the industry and region more attractive and sustainable from an economic, environmental, and social perspective. The findings of the study highlight the need for

the industry to diversify beyond traditional automotive manufacturing jobs. This was evidenced in the Business Leaders For Michigan scorecard that benchmarked the dynamism of the Michigan economy compared to the rest of the country. Michigan was in the bottom half for all categories except one. As the leading industry in the state, the automotive sector can provide the needed training to make the industry and workforce more resilient and competitive.

The participant interviews highlighted how current training is often not aligned with emerging industry trends, such as electric vehicle infrastructure, battery recycling, and public transit electrification. This can cause a lag in innovation and talent development. The example of ChargerHelp demonstrates how innovative companies can train workers in sustainable careers like electric charger installation and maintenance. This also serves the community in the form of increased accessibility to public charging infrastructure. If the Detroit automotive industry can prioritize innovative training, the city can become a leader in sustainable mobility workforce development.

The findings from this research show that while the foundation for collaboration between Detroit's automotive and public transit sectors exists, significant barriers are limiting progress at scale. These challenges can be addressed through strong cross-sector partnerships, community-focused CSR strategies, strategic investments, such as mergers and acquisitions, and innovative training. These solutions offer a path forward for building a more sustainable and inclusive workforce in Detroit. Coordinated efforts through various stakeholders are required to achieve these objectives and establish Detroit as a sustainable city of the future.

5.2 Limitations

While this study brings forth valuable insights into the potential for collaboration between the automotive and public transit sectors to support sustainable workforce development in Detroit, there are several limitations that should be considered. These limitations are related to the qualitative research methodology that was used for this study, which can affect the interpretation of the findings.

While the interview participants come from varying career and industry backgrounds (automotive, public transit, academia, and NGO), their perspectives may not reflect broader trends in automotive and public transit collaboration or workforce training and development. Five of the six interview participants are based in Detroit and one is based in New York City. This is a relatively small group of participants, representing limited geographic diversity. "The value of qualitative research lies in the particular description and themes developed in context of a specific site. Particularity rather than generalizability is the hallmark of qualitative research" (Cresswell, 2014). With the particular focus of this study being

Detroit, as well as the limited scope of interview participants, the results are context-specific and likely not applicable for broad generalization to other geographic regions, stakeholder groups, or sectors. Additionally, some of the interview participants come from overlapping career and industry backgrounds which can limit the perspectives represented. According to Cresswell, “qualitative researchers select participants purposefully, but may still miss important voices if the sample is too narrow or homogeneous”. For potential future studies on this topic, other important voices to consider could include automotive industry leaders, frontline automotive and public transit workers, union representatives, community members, and local government officials.

The nature of qualitative research leaves room for bias. "In the entire qualitative research process, the researcher keeps a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researchers bring to the research or writers express in the literature” (Creswell, 2014). It is important to acknowledge the bias that I, the researcher, bring to the study. My personal background and strong interest in this topic may influence how I interpreted and shared the research findings. Additionally, bias is also possible to show up in the research from the interview participants, who shared their subjective perspectives. Given that the participants were purposefully selected based on their professional subject matter expertise, this may have impacted their interview responses. The process of qualitative research is co-constructed, meaning that it is possible for the subjective perspectives of both the participants and researcher to impact how the questions are answered and interpreted (Rossman & Rallis, 2016). As the researcher, I strived to be reflective of this throughout the process to restrict any bias. However, these are important limitations to consider when interpreting the results of the study.

5.3 Recommendations

The research indicates that there are pathways to a future where the automotive and public transit sectors can enhance sustainable workforce training and development opportunities in Detroit. However, there are challenges to overcome in achieving this. The themes identified in the literature review and participant interviews indicate that current efforts towards this initiative are fragmented and tend to be focused on either the automotive or public transit sectors individually. While the potential is there, current collaboration between the automotive companies and public transit agencies in Detroit is lacking. Building upon what was shared in the interpretation of results, the three recommendations below represent themes that emerged in the research to address these challenges.

1) Establish a formal PPP focused on public transit development and workforce training and development. This can be achieved through the creation of a cross-sector workforce development council,

consisting of representatives from Detroit's automotive companies, public transit agencies, and local government. The primary objective of this PPP would be to find sustainable business models that enable automakers to contribute to public transit development while upskilling their workforce. This kind of PPP can benefit businesses and the community from an economic, environmental, and social perspective.

2) There is an opportunity for the automotive companies of Detroit to fill a void that currently exists in Detroit's transit ecosystem, which is zero-emission buses. As of 2024, the city of Detroit has four zero-emission hydrogen fuel cell buses out of a fleet of approximately 300 buses, with 25 more hybrid and hydrogen buses expected to be added by 2026 (Detroit Department of Transportation, 2024). This was funded through a federal bipartisan infrastructure act from the United States Department of Transportation. Through collaborative efforts, the big three can help the city electrify their entire bus fleet by entering the field of zero-emission bus manufacturing.

The barriers of entry are high into a new product line such as zero-emission buses, however, mergers, acquisitions, or joint ventures could be a viable option for the big three to break into this market and support sustainable mass transit for Detroit, as well as eventual expansion to serve other municipality clients around the world. With electric bus adoption and jobs expected to rise in the years ahead, this is a prime opportunity for the big three to future-proof their business and workforce. Supporting Detroit's transition to a zero-emission bus fleet not only diversifies the automakers' product lines and revenue potential, but it can also position them as sustainable transit leaders among American automakers. These efforts would contribute directly to multiple United Nations SDGs.

3) The big three automotive companies need to develop community engagement strategies that prioritize sustainable mass transit and include clear pathways for implementation. The intention of this is to achieve shared value creation that aligns business objectives with addressing societal challenges, similar to how Mercedes-Benz and Volvo have prioritized wholistic sustainable transit solutions through significant investments in the electric bus market. By investing in public transportation and training their workforce for jobs in this sector, the automotive industry can diversify and future-proof their business and workforce, while the community can benefit from improved sustainable mobility options, job creation, and a more environmentally friendly community with reduced carbon emissions.

5.4 Concluding Points

The outcomes of this study invite further inquiry into the next questions that arise from this research. Further cross-sector approaches remain unexplored that could enhance the impact of sustainable

workforce training and development in Detroit's automotive and public transit sectors. My hope is that this study inspires future researchers to explore ways in which these ideas can be operationalized and executed. By finding synergies between the automotive and public transit sectors, their collaboration can play an important role in making Detroit's automotive industry, workforce, and community more sustainable from an economic, environmental, and social perspective.

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Appendix

Appendix A: Participant Agreement Form

Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Participant Name:
Interviewer Name: Kayla Halmaghi
Interviewer Programme of Study: MBA, Sustainability Leadership
Research Learning Tutor: Dr. Alex Bell, UWTSD

Participation Agreement to be interviewed:

I agree to participate in the research concerning *"Collaboration between the Automotive and Public Transit Sectors to Enhance Sustainable Workforce Training and Development Opportunities in Detroit, Michigan*". I understand that the purpose of this study is to examine my experiences and perspectives related to this topic. I understand that this will involve me in a short 30–40-minute interview.

I understand that this interview will be recorded and transcribed for use only in the *interviewer's (Kayla Halmaghi)* postgraduate Masters dissertation at the University of Wales Trinity Saint David.

I understand that my name or any reference to my identity will be kept anonymous in this study and for any subsequent publications I will be asked again for my consent. I understand that storage of the recordings and transcriptions relating to this interview will be anonymous; not be used for any other purpose than this study and will be subsequently destroyed after the use intended here.

I understand that I may withdraw from the study at any point with all records of my contribution removed without having to provide a reason.

Interviewee Signature:

Interviewer Signature:

Date of Interview:

A copy of this agreement will be retained by the interviewer.

Appendix B: Questionnaire Form

Questionnaire Introduction

Thank you for agreeing to be interviewed for my thesis research. The aim of this research is to answer the question of how cross-industry collaboration between the public transit and automotive sectors can enhance sustainable workforce training and development opportunities in Detroit, Michigan. I will address this question through four objectives:

Objective One: Communities of Practice

Explore how knowledge sharing and cross-training between the automotive and public transit sectors can have a positive impact on the people and economy of greater Detroit.

Objective Two: Shared Value to Create Community and Business Resilience

Demonstrate opportunities for social well-being, job creation, enhanced workforce skills, economic resilience, and increasing market share for Detroit automotive companies through the shared value creation between the automotive and public transit sectors.

Objective Three: Sustainable Cities

Show how automotive industry investment into public transportation can increase workforce development and training opportunities, provide more equitable access to transportation and jobs, and promote economic and environmental resiliency.

Objective Four: Driving Sustainability and Engagement through Stakeholder Involvement

Examine how stakeholder involvement can drive sustainability and engagement in the community and across industries. This is demonstrated through research on the economic value of sustainability and social responsibility.

Questions

Introduction Questions:

- What company do you currently work for and what is your role?
- How long have you worked in this industry?
- Is your company currently working on any collaborative projects between the automotive industry and public transit sector?

- How do you perceive the current collaboration between the Detroit automotive industry and public transit sector? Is there opportunity to grow this partnership?

Communities of Practice

- Are communities of practice currently happening within your company or industry?
- Do you have any experience developing communities of practice in your company or industry?
- What are some key aspects of successful communities of practice?
- Have you faced any challenges when developing a community of practice?
- How did you overcome these challenges?
- Have you seen community of practice examples that facilitated collaboration and knowledge sharing across industries?
- Do you think communities of practice can be beneficial to the collaboration between the automotive and public transit sectors in Detroit?

Shared Value to Create Community and Business Resilience

- Are you aware of any initiatives or projects in your industry that created shared value for both the company and the community?
    - Did the initiative generate profit for the company?
    - Did the initiative lead to any of the following value creation?
        - Increased business resilience and stability
        - More jobs
        - Training and development opportunities
- How can collaboration between the automotive and public transit sectors contribute to creating shared value for both businesses and the community?
- In your experience, does corporate social responsibility (CSR) play a role in creating shared value for both business and the community?
    - What stakeholders need to be involved in successful CSR?
    - How can companies get employees engaged in CSR?
    - How can companies engage with the community through CSR?

Sustainable Cities

- Are you aware of any initiatives or projects in the automotive industry related to sustainable cities?
- The automotive industry is currently focused on the mass production of single-ownership cars with a limited lifespan. To pivot to a more sustainable and socially-beneficial business model, what mobility solutions can the automotive industry offer to the mass public?

- What kind of training, jobs, and technological development is needed for the automotive industry to make this shift?
- Do you think the largest Detroit automotive companies (Ford, GM, Stellantis) already have the resources in place to achieve this?
- What benefits do you foresee in shifting from private car ownership to mass public mobility solutions?
- What challenges do you foresee in shifting from private car ownership to mass public mobility solutions?
- What partnerships or collaborations are needed to implement these mobility solutions successfully?
- What workforce development skills do you think are most in demand for mass mobility solutions?
    - Do any of the needed skills already exist within the Detroit automotive workforce?
- Do you currently see any significant trends shaping the future workforce in Detroit?

Driving Sustainability and Engagement through Stakeholder Involvement

- How can automotive companies engage stakeholders to drive environmental and social responsibility within their organizations and communities?
- Who are the key stakeholders needed for successful collaboration between the automotive and public transit sectors?
- Do you see a place for NGOs and/or universities to help drive engagement in this collaboration?
- Does your company have a formalized training and development program?
- Have you ever received training related to environmental sustainability?
- Have you been part of any transformative collaboration projects in your career?
- How did you successfully engage with stakeholders to ensure alignment and execution?
- What challenges might organizations face in engaging stakeholders to drive sustainability?
- How can these challenges be overcome?

Final Questions

- Do you have any additional comments or feedback on this topic that could be helpful for my research?
- Do you recommend any other people or organizations that I should get in touch with for my research?