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The Influence of Related Diversification Strategies on Firm Profitability: Insights from the Motor Industry in Zimbabwe

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Abstract

The study investigated the impact of related diversification strategies on profitability within the Zimbabwean motor industry. The study was anchored on the philosophy of positivism and relied on the deductive approach. Since the population size was manageable, a complete enumeration or census was used; there was no need for sampling. Utilising the explanatory research design, a 5-point Likert scale structured questionnaire was administered to 143 respondents who were employees of three well-established motor car dealers in Zimbabwe and 115 responded. The response rate was thus 80.4% for this study. The study examined four diversification strategies: expansion into electric vehicles, automotive parts manufacturing, mobility services and connected vehicle technologies. SPSS version 29 was used to perform correlation and regression analysis. Correlation analysis showed that there was a moderate positive and statistically significant relationship between expansion into electric vehicles and firm profitability ($\beta = 0.592$, $p < 0.05$), indicating that for every unit increase in EV adoption, profitability increased by approximately 0.592 units. Regression analysis revealed that 43% of the variability in profitability could be explained by the expansion into EVs (R^2=0.430), while the remaining 57% was attributed to other factors not captured in this model. On the link between automotive parts manufacturing and firm profitability, correlation analysis indicated that a weak negative yet statistically significant relationship between automotive parts manufacturing and firm profitability (β =−0.245, $p<0.05$), the coefficient of determination (R^2=0.171), resulting from regression analysis, showed that about 17% of the variability in profitability was explained by automotive parts manufacturing, while the remaining 83% was due to other factors not captured in this model. The unstandardised coefficient for mobility services from correlation analysis was β=0.398 with a corresponding p-value of $p<0.05$. This suggested that for every unit increased in mobility services, profitability increased by 0.398 units, indicating a weak positive relationship. The coefficient of determination (R^2=0.317) revealed that about 31.7% of the variability in profitability could be explained by mobility services, while the remaining 68.3% was attributable to other factors not captured in this model. Last but not least, the unstandardised coefficient for connected vehicle technologies was β=0.389 with a corresponding p-value of $p<0.05$. This indicated that for every unit increase in the adoption of connected vehicle technologies, profitability increased by approximately 0.389 units, signifying a weak positive relationship. The coefficient of determination (R^2=0.315) indicated that about 31.5% of the variability in profitability could be explained by connected vehicle technologies, while the remaining 68.5% was attributed to other factors not captured in this model. The results of the study suggested that embracing related diversification strategies could enhance financial performance for motor companies in Zimbabwe, despite the challenges of operating in a dynamic and competitive environment. The study recommended that automotive companies in Zimbabwe should prioritise the adoption of electric vehicles and

invest in related technologies, given the clear profitability benefits associated with this transition. In addition, automotive companies in Zimbabwe were encouraged to revamp the automotive parts manufacturing sector to overcome existing challenges and improve efficiency. Furthermore, automotive firms should actively develop and expand their mobility service offerings to capitalise on the positive relationship between these services and profitability. Lastly, the study recommended that the integration of connected vehicle technologies should be pursued strategically, with attention to the potential barriers related to initial costs. Policymakers were encouraged to create supportive frameworks and financial incentives to facilitate technology adoption among local firms, particularly smaller ones that might struggle with upfront investment requirements.

Keywords: Related diversification, profitability, sustainability, sustainable development goals

Introduction

The motor industry serves as a pivotal sector in Zimbabwe's economic development. Amidst challenges posed by economic instability and high costs, organisations within this sector should adopt effective strategies to enhance profitability. Related diversification strategies, which involve expanding into areas aligned with existing operations, have emerged as a critical approach for motor companies seeking to mitigate risks and capitalise on new opportunities. This study focused on assessing the impact of related diversification strategies on profitability within the Zimbabwean motor industry. The importance of related diversification became evident in fluctuating market conditions and changing consumer preferences. Companies that integrated new offerings such as electric vehicles and maintenance services into their existing frameworks stood to gain competitive advantage. Despite the benefits of related diversification, the effectiveness of these strategies remained unclear in Zimbabwe, necessitating a focused investigation.

Globally, the motor industry is characterised by intense competition and high barriers to entry, with significant implications for profitability. According to Kurekova (2018), the motor industry sector is among the largest and most internationalised industries, producing approximately 77 million vehicles worldwide in 2020 (OICA, 2021). However, profitability is contingent on several factors, including market demand, production costs and regulatory frameworks. Recent trends indicate that motor companies are adopting diversification strategies to navigate market volatility. McKinsey and Company (2021) report that firms venturing into electric vehicles have seen substantial growth in demand, which underscores the relevance of related diversification. Statistical evidence supports the assertion that related diversification can lead to enhanced profitability. A Deloitte (2022) study found out that motor firms focusing on diverse technologies reported profit margins 15% higher than those concentrating on traditional vehicles. This highlighted the role of innovation and diversification in driving profitability.

In Africa, the motor industry changed due to urbanisation and economic growth. The African Development Bank (2021) estimated that the sector would contribute $10 billion to the continent's GDP by 2025. Nonetheless, profitability challenges persisted, particularly within Zimbabwe, where the motor industry contributed around 3% to the GDP (ZIMSTAT, 2022). Companies like ZIMOCO, Croco Motors and Zimbabwe Motor Distributors (ZMD) adopted related diversification strategies, such as expanding into vehicle maintenance and part sales. Despite these efforts, many firms continued to face declining profitability. Recent studies indicate a correlation between related diversification strategies and improved financial

outcomes. Moyo et al. (2022) found out that companies in South Africa that diversified their offerings experienced a 15% increase in profits over three years. In contrast, unrelated diversification presented mixed results, often leading to inefficiencies and increased operational costs without corresponding profit increases. (Nkosi & Chikanda, 2023). The urgency for companies to understand the effectiveness of related diversification in this environment was paramount, as existing literature lacked a focused examination of this relationship in the local context. This study filled the research gap by analysing the impact of related diversification strategies on profitability in the Zimbabwean motor industry, providing insights into how these approaches could enhance financial performance amidst prevailing economic challenges.

Theoretical Framework

This study was underpinned by the competitive strategy theory, which was developed by Michael Porter (Porter, 1980). This theory posits that firms attain sustainable competitive advantage through three generic strategies, namely: cost leadership, differentiation and focus. Focus could take the form of cost focus or differentiation focus. The competitive strategy theory is premised on the understanding that businesses operate in a competitive environment and that their success relies on the ability to outperform rivals. Porter (1980) opines that businesses must develop a unique value proposition that is able to set them apart from their rivals and create a barrier to entry. Creating a unique value proposition requires a deep understanding of customer needs and preferences and the ability to deliver a product or service that meets those needs better than anyone else.

Conceptual Review

This section focuses on the review of key concepts, namely: related diversification strategies, expansion into electric vehicles, automotive parts manufacturing, mobility services, connected vehicle technologies and profitability.

Related Diversification

Related diversification refers to a corporate strategy where a company expands its operations into areas that are related to its existing business activities. This can involve entering new markets or developing new products that complement the company's current offerings. The primary goal of related diversification is to leverage synergies between the existing and new business units, which can lead to enhanced competitive advantages, improved operational efficiencies and increased market share (Zhou et al., 2022). In the motor industry, related diversification might involve a vehicle manufacturer expanding into producing automotive parts or accessories or even venturing into services such as vehicle maintenance and repair. The business can use its current technology, distribution networks and expertise in this way, reducing the risks involved in breaking into wholly unrelated industries. (Thompson et al., 2024). This strategy can also help firms mitigate risks by spreading their investments across different but related sectors within the automotive value chain.

Expansion into electric vehicles (EVs)

The shift towards sustainable green transportation has prompted many traditional automotive manufacturers to diversify into electric vehicles. Companies like Ford and General Motors have invested heavily in EV technology and infrastructure. For instance, Ford's "Ford+" plan aims

to invest over $50 billion in EV development by 2026 (Ford Motor Company, 2022). This strategy not only aligns with global sustainability goals but also allows these companies to utilise their existing manufacturing capabilities while tapping into a rapidly growing market segment. According to a study by McKinsey and Company (2023), automakers who embrace EV diversification are likely to see significant returns on investment due to increasing consumer demand for environmentally friendly vehicles. The global EV market is expected to grow at a compound annual growth rate (CAGR) of 22% from 2023 to 2030 (Custom Market Insights, 2024). Additionally, research by the International Energy Agency (2022) indicates that government policies supporting EV adoption will further drive market growth, with subsidies and regulations promoting the shift towards cleaner transportation options.

Automotive parts manufacturing

Another avenue for related diversification is through automotive parts manufacturing. Companies may choose to produce components such as batteries, electric drivetrains or advanced driver-assistance systems (ADAS). For example, Tesla has diversified its operations by producing battery cells through its Gigafactory in Nevada. This vertical integration not only reduces costs but also ensures a steady supply of critical components necessary for its vehicle production. Research conducted by Deloitte (2023) highlights that companies involved in parts manufacturing can achieve substantial cost savings and improve operational efficiencies through economies of scale and shared technology platforms. Furthermore, a study by Boston Consulting Group (2022) suggests that automotive parts suppliers focusing on innovation and R&D in areas like electrification and autonomous driving can expect to see increased demand and higher profitability due to their strategic position within the value chain.

Mobility services

With the rise of ride-sharing platforms and autonomous driving technology, traditional automakers were diversifying into mobility services. Companies like BMW launched initiatives such as ReachNow and DriveNow, which provided car-sharing services aimed at urban consumers looking for flexible transportation options without owning a vehicle. A study published by PwC (2023) emphasises that mobility services represent a significant growth opportunity for automotive companies as urbanisation continues to increase globally. The report suggests that firms diversifying into this sector could enhance customer engagement while generating new revenue streams beyond traditional vehicle sales. Moreover, a research paper by the World Economic Forum (2022) highlights the potential of shared mobility services to reduce traffic congestion and greenhouse gas emissions, further adding to their appeal.

Connected Vehicle Technologies

The integration of connected technologies within vehicles represented another form of related diversification. Automakers were increasingly investing in software solutions that enabled vehicle-to-everything (V2X) communication, enhancing safety features and user experience. For instance, Ford partnered with tech companies like Google to develop cloud-based data analytics solutions for connected cars. According to research from Gartner (2023), investments in connected vehicle technologies were projected to reach $100 billion annually by 2025 as more consumers demanded smart features in their vehicles. A study by McKinsey and Company (2022) also indicates that connected vehicles can create new revenue streams for OEMs through data monetisation, subscription-based services and in-vehicle advertising.

Profitability

Profitability is a financial metric that measures the ability of a company to generate income relative to its revenue, operating costs and expenses over a specific period. It is often assessed using various ratios such as net profit margin, return on assets (ROA) and return on equity (ROE) (Lei & She, 2025). Profitability indicates how effectively a company is utilising its resources to produce earnings and is crucial for sustaining operations and funding growth initiatives. In the motor industry in Zimbabwe, profitability was influenced by factors such as market demand for vehicles, production costs, pricing strategies and competition. A firm that successfully implemented a related diversification strategy experienced increased profitability through cost savings from economies of scale, enhanced brand recognition across product lines and improved customer loyalty due to a range of offerings. (Thompson et al., 2024). Thus, understanding the relationship between related diversification strategies and profitability was essential for companies in Zimbabwe's dynamic automotive market.

Empirical Framework

This section covered the review of literature from prior studies and derived guidance from the key objective of the study.

Expansion into Electric Vehicles (EVs) and Profitability

The transition to electric vehicles (EVs) represented a shift within the motor industry, driven by technological advancements, environmental concerns and changing consumer preferences. Numerous studies explored the relationship between the adoption of EVs and profitability, indicating that this diversification strategy could yield substantial financial benefits for automotive firms. (IEA, 2021; Chikozho & Mavhunga, 2023; Kumar & Singh, 2022; Albatayneh, 2024). Moreover, an analysis by IEA (2021) states that global EV sales surged by 43% in 2020, despite the pandemic's challenges. This trend underscored the growing demand for EVs, suggesting that companies that diversified into this segment captured a larger market share, thereby enhancing their profitability. The report also noted that firms that proactively invested in EV infrastructure, such as charging stations, positioned themselves favourably within the industry. In Zimbabwe, the motor industry faced challenges, including economic instability and currency fluctuations, which affected profitability. However, studies, such as those conducted by Chikozho and Mavhunga (2023), indicated that firms engaging in related diversification specifically through the introduction of EVs could mitigate some of these challenges. Their findings suggested that firms that successfully leveraged EV technology were better equipped to respond to market demands and improve their financial performance. Kumar and Singh (2022) highlight the importance of related diversification in the automotive sector. Kumar and Singh (2022) argue that companies focusing on EVs could achieve economies of scale and scope, which could enhance profit margins. Their study illustrates that firms that integrate EV production into their existing operations could reduce costs and increase overall profitability. Despite the promising outlook, some scholars caution against overestimating the financial benefits of diversifying into EVs. A study by Winter (2023) critiques the notion that all firms would benefit equally from such diversification. He argues that the success of shifting towards EVs depends on company size, resource allocation and market readiness. This perspective highlights the complexity of the relationship between EV diversification and profitability, suggesting that further empirical investigation was necessary. Considering the literature, the following hypothesis is formulated:

H_1: Expansion into electric vehicles (EVs) has a positive effect on the profitability of motor industry firms in Zimbabwe.

Automotive Parts Manufacturing and Profitability

Kafetzopoulos and Psomas (2020) analysed the impact of local parts manufacturing on profitability in the automotive sector. Their survey, which included 250 automotive companies, indicated that firms that sourced components locally experienced a 12% increase in profit margins compared to those reliant on imported parts. This suggested that local manufacturing could enhance profitability by reducing logistics costs and improving supply chain efficiency. In a similar vein, an investigation by Wang and Zhang (2019) focused on the effects of parts manufacturing on operational performance within the automotive industry. Through a sample of 300 manufacturers, the study found out that companies engaged in parts manufacturing reported enhanced operational efficiency and reduced production downtime. These improvements in operational metrics translated into a 15% increase in profitability. This underscores the importance of automotive parts manufacturing as a strategic avenue for enhancing financial performance. Moreover, research by Hsu and Cheng (2021) examined the significance of innovation in parts manufacturing. The study utilised data from 180 automotive firms and demonstrated that those investing in innovative manufacturing techniques, such as automation and smart technologies, achieved higher profit margins. The findings indicated an average profit increase of 18% for companies that implemented advanced manufacturing processes, highlighting the correlation between innovation in parts production and profitability.

Conversely, a study by Alon et al. (2022) explored the challenges faced by automotive parts manufacturers in emerging markets. This research included a survey of 200 firms in countries, including Zimbabwe. It revealed that while local manufacturing had profitability advantages, companies encountered obstacles such as inadequate infrastructure and fluctuating raw material costs. These challenges could diminish the anticipated profitability from automotive parts manufacturing, leading to mixed results in the literature. Furthermore, a report by the Zimbabwe Motor Industry Association (2021) indicates that automotive parts manufacturing in Zimbabwe was underdeveloped, which has affected the profitability of local motor companies. The report emphasised that firms that invested in establishing local parts manufacturing capabilities showed resilience against external economic shocks, thereby maintaining a stable profitability trajectory. The literature highlights the benefits of automotive parts manufacturing in enhancing profitability, while also acknowledging the challenges that could arise. Given the diverse factors influencing profitability, such as operational efficiency, innovation and local economic conditions, the following hypothesis was formulated:

H_2: Automotive parts manufacturing has a statistically significant effect on the profitability of motor industry firms in Zimbabwe.

Mobility Services and Profitability

The integration of mobility services into the automotive industry has gained significant attention in recent years, with various studies exploring their impact on profitability. Mobility services encompassed a range of offerings, including ride-hailing, car-sharing and vehicle subscription models, which aimed to adapt to changing consumer preferences and urban mobility needs. A study by Shaheen and Cohen (2019) examined the effects of mobility services on traditional automotive sales, highlighting that companies offering diverse mobility solutions could enhance customer engagement and loyalty, ultimately contributing to

profitability. Their findings suggested that firms that diversified into mobility services could tap into new revenue streams, thus improving their financial performance. In a similar vein, Fagnant and Kockelman (2014) assessed the economic viability of shared mobility services. The study found out that shared mobility options not only reduced the costs for consumers but also allowed companies to maximise asset utilisation. This efficiency could lead to substantial improvements in profit margins, particularly in urban environments where the demand for flexible transportation options was growing. The authors asserted that such services could create a competitive edge for automotive companies, as they adapted to market changes and consumer preferences. Moreover, Zhang et al. (2020) investigated the relationship between mobility services and profitability in the context of electric vehicles (EVs). The researchers found out that companies expanding into mobility services while investing in EV technology reported higher profitability compared to those focused solely on traditional vehicle sales. This indicates that the convergence of mobility and sustainability could be a key driver of financial success in the automotive sector.

However, not all studies unanimously supported the notion that mobility services directly enhanced profitability. For instance, a study by Giesecke et al. (2021) raised concerns about the potential costs associated with implementing mobility services, including technology investments and operational expenses. The authors argue that while mobility services could provide new revenue opportunities, they introduced complexities that could hinder profitability if not managed effectively. This highlighted the necessity for companies to carefully evaluate the operational and financial implications of entering the mobility services market. In Zimbabwe, the adoption of mobility services was still in its nascent stages and there was limited empirical research available. However, understanding how these services could impact profitability within the local market was crucial for motor industry players facing economic challenges. Moyo and Nyoni (2022) indicate that local automotive firms could benefit from diversifying their service offerings to include mobility solutions, particularly given the rising demand for affordable transportation options amid economic constraints. This led to the following hypothesis:

H_3: Mobility services adoption has a statistically significant effect on the profitability of motor industry firms in Zimbabwe.

Connected Vehicle Technologies and Profitability

The advent of connected vehicle technologies reshaped the automotive landscape, fostering new opportunities for enhancing profitability. Connected vehicles utilised advanced communication systems, allowing vehicles to interact with each other, infrastructure and various services. According to Lee and Kwon (2018), these technologies improved operational efficiency and enhanced customer experiences. Their study, which analysed a sample of 500 automotive companies, found a positive correlation between the adoption of connected vehicle technologies and profitability metrics. In a similar vein, the research by Zhang et al. (2020) examined the impact of connected vehicle technologies on service delivery in the automotive sector. The findings indicated that companies integrating these technologies experienced improved service efficiency and customer satisfaction, which contributed to higher profitability. The study utilised a mixed-methods research design, surveying 300 consumers and interviewing 50 industry experts, thereby providing a comprehensive understanding of the relationship between technology adoption and financial performance. Furthermore, a study conducted by Chen and Xu (2021) focused on the implications of connected vehicle technologies for operational cost reductions. Their empirical analysis of 200 automotive firms

revealed that those leveraging these technologies could significantly lower maintenance costs and enhance supply chain management efficiency. By reducing operational expenditures, these firms were able to improve their profit margins, underscoring the financial benefits of technological integration. Conversely, some scholars argue that the initial investment required for implementing connected vehicle technologies could be a substantial barrier for many companies, particularly in developing markets such as Zimbabwe. A case study by Moyo and Chikozho (2022) highlighted that while connected vehicle technologies offered long-term profitability potential, the upfront costs deterred smaller companies from adopting such innovations. Their research emphasised the need for supportive policies and financial incentives to encourage the adoption of these technologies in the local motor industry.

Moreover, the study by Ngwenya et al. (2023) illustrated that firms that successfully integrated connected vehicle technologies benefited from enhanced data analytics capabilities. This allowed them to make informed decisions, optimise operations and tailor services to meet customer needs, which ultimately drove profitability. The researchers employed a quantitative survey method, collecting data from 150 automotive businesses in Harare, thus providing regional insights into the effectiveness of connected technologies. Given this backdrop, it was critical to examine the specific impact of connected vehicle technologies on profitability within the context of the motor industry in Zimbabwe. The existing literature provided a foundation for understanding the benefits and challenges associated with these technologies. However, the economic environment in Zimbabwe necessitated a focused investigation into how these factors interacted to influencing financial performance. The following hypothesis was therefore formulated:

H_4: Connected vehicle technology adoption has a statistically significant effect on the profitability of motor industry firms in Zimbabwe.

Research Methodology

This research used the explanatory research design and survey research strategy. The explanatory research design was necessary to address the cause-and-effect and relationship issues amongst the independent and dependent variables. The study was premised on the positivist philosophy and leveraged the quantitative research method. The target population consisted of 143 employees in management grades, as these were assumed to have a good understanding of corporate and business strategies. Given that the population size was manageable, the study employed the census logic; hence, the entire population was used in the study. A structured 5–point Likert scale questionnaire was utilised to collect data from employees in the motor industry. Google Forms were used for distributing the questionnaires, facilitating broader outreach and increasing response rates. Validity of the questionnaire was enhanced through expert reviews and pilot - testing. The independent sub-variables for this study were expansion into electric vehicles, automotive parts manufacturing, mobility services and connected vehicle technologies. The dependent variable was profitability. To determine the effect of these diversification strategies on profitability, linear regression analysis was performed using SPSS version 29. The research instrument's internal consistency was assessed using Cronbach's alpha and the values for the sub-variables (electric vehicles, automotive parts manufacturing, mobility services and connected vehicle technologies) were found to be reliable, with values ranging from 0.825 to 0.936. The composition of the population ensured that the findings accurately represented the perspectives of different roles within the motor industry in Zimbabwe.

Results and discussion

The researchers distributed a total of 143 copies of the questionnaire to the respondents, out of which 115 copies were filled out and returned. The response rate of the participants to the questionnaire administered was 80.4%. The analysis was conducted by using the inferential statistics, more specifically, linear regression analysis. The hypothesis test was conducted with a 95% confidence interval, assuming a significance level of 0.05. The decision rule was placed at a crucial area of $p<0.05$ for alternative hypothesis acceptance.

Hypothesis Testing

H_1: Expansion into electric vehicles (EVs) has a positive effect on the profitability of motor industry firms in Zimbabwe.

Table 1: Regression analysis of expansion into electric vehicles (EVs) on the profitability of motor industry firms in Zimbabwe

Coefficients[a]						
Model s		**Unstandardised Coefficients**		**Standardised Coefficients**	**t**	**Sig.**
		β	**Std. Error**	**Beta**		
	(Constant)	10.790	1.000		10.795	.000
	Expansion into Electric Vehicles	0.592	0.048	0.656	12.353	.000
$R = 0.656^a$ $R^2 = 0.430$ $F(1, 202) = 152.590$						

Dependent Variable: Profitability

The results presented in Table 1 indicate that expansion into electric vehicles (EVs) has a positive and significant effect on profitability in the motor industry companies in Zimbabwe. The correlation analysis yielded an unstandardised coefficient of $\beta=0.592$ with a corresponding p-value of $p<0.05$. This finding suggested that for every unit increase in the adoption of EVs, profitability increased by approximately 0.592 units, indicating a moderate positive relationship. Regression analysis yielded a coefficient of determination ($R^2=0.430$), revealing that about 43% of the variability in profitability was explained by the expansion into EVs, while the remaining 57% was attributed to other factors not captured in this model. The F-statistic of $F(1,202) = 152.590$ with $p<0.05$ confirmed that the model was statistically significant and suitable for policy making. Based on these results, the hypothesis (H_1), which posited that expansion into electric vehicles (EVs) had a positive effect on the profitability of the motor industry firms in Zimbabwe, was accepted. This aligned with the growing body of literature suggesting that the transition towards EVs enhanced profitability through various mechanisms. The findings of this study corroborated previous research that highlighted the financial advantages of expanding into electric vehicles. This resonated with the current findings, indicating that the adoption of EVs fostered a competitive edge for automotive firms in Zimbabwe. The International Energy Agency (IEA) (2021) reported a surge in global EV sales, suggesting a demand for electric vehicles. As companies diversified into this segment, they captured a larger market share, contributing to their profitability. This trend was echoed by Chikozho and Mavhunga (2023), who argued

that firms that engaged in related diversification through EVs could better navigate economic challenges, positioning themselves favourably within the market. Furthermore, Kumar and

Singh (2022) emphasised the importance of related diversification in achieving economies of scale, which could enhance profit margins.

H_2: Automotive parts manufacturing has a statistically significant effect on the profitability of motor industry firms in Zimbabwe.

Table 2: Regression analysis of the effect of automotive parts manufacturing on the profitability of motor industry firms in Zimbabwe

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	14.293	0.737		19.378	.000
	Automotive Parts Manufacturing	-0.245	0.037	-0.414	-6.442	.000
$R = 0.414^a$ $R^2 = 0.171$ $F(1, 202) = 41.48$						

Dependent Variable: Profitability

The results presented in Table 2 indicate that automotive parts manufacturing had a negative and statistically significant relationship with profitability (unstandardised coefficient of $\beta = -0.245$ with a p-value of $p<0.05$). This suggested that for every unit increase in automotive parts manufacturing, profitability decreased by 0.245 units, indicating an inverse relationship. The coefficient of determination ($R^2=0.171$) from regression analysis shows that about 17% of the variability in profitability could be explained by automotive parts manufacturing, while the remaining 83% was due to other factors not captured in this model. The F-statistic of $F(1,202) = 41.48$ with $p<0.05$ affirmed that the model was statistically significant. Based on these results, the hypothesis (H_2), which posited that automotive parts manufacturing had a statistically significant effect on the profitability of motor industry firms in Zimbabwe, was accepted. The negative relationship between automotive parts manufacturing and profitability in this study contrasted with findings from prior research that emphasised the potential benefits of local parts production. Kafetzopoulos and Psomas (2020) demonstrated that firms sourcing components locally could experience profit margins increased by 12%, primarily due to reduced logistics costs and improved supply chain efficiency. However, the current study indicated a different trend, suggesting that local manufacturing might not be yielding anticipated benefits in the Zimbabwean context. Wang and Zhang (2019) also highlighted the operational efficiencies gained through parts manufacturing, leading to a 15% increase in profitability. Yet, the findings of this study suggested that the automotive parts manufacturing sector in Zimbabwe was facing unique challenges that hindered these potential gains. Research by Hsu and Cheng (2021) emphasised the role of innovation in parts manufacturing, indicating that firms adopting advanced manufacturing techniques saw profit margins rise by an average of 18%. The lack of such innovations in the local automotive parts sector could be a contributing factor to the observed negative impact on profitability. Conversely, Alon et al. (2022) pointed to the challenges faced by automotive parts manufacturers in emerging markets, including fluctuating raw material costs. These obstacles were relevant in Zimbabwe, where such challenges affected profitability. The Zimbabwe Motor Industry Association (2021)

further noted that the underdevelopment of automotive parts manufacturing in the country adversely impacted local firms' profitability.

H_3: Mobility services adoption has a statistically significant effect on the profitability of motor industry firms in Zimbabwe.

Table 3: Regression analysis of the effect of mobility services on profitability in motor industry firms in Zimbabwe

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	15.778	0.892		17.706	.000
	Mobility services	0.398	0.044	0.548	9.338	.000
$R = 0.538^a$ $R^2 = 0.317$ $F(1, 202) = 87.238$						

a. Dependent Variable: Profitability

The results presented in Table 3 indicate that mobility services adoption had a weak positive and yet significant relationship with profitability in the motor industry firms in Zimbabwe (β=0.398 with a corresponding p-value of $p<0.05$). This suggested that for every unit increase in mobility services, profitability increased by 0.398 units, indicating a weak positive relationship. The coefficient of determination (R^2=0.317) revealed that about 31.7% of the variability in profitability was explained by mobility services, while the remaining 68.3% was attributable to other factors not captured in this model. The F-statistic of F (1,202) = 87.238 with $p<0.05$ confirmed that the model was statistically significant. Based on these results, the hypothesis (H_3), which posited that mobility services adoption had a significant effect on the profitability of motor industry firms in Zimbabwe, was accepted. These findings indicated that incorporating mobility services into the business model positively impacted profitability for automotive firms in Zimbabwe.

The positive relationship between mobility services adoption and profitability aligned with the growing body of literature that highlighted the benefits of integrating such services into traditional automotive operations. Research by Shaheen and Cohen (2019) underscored that companies offering diverse mobility solutions enhanced customer engagement and loyalty. This finding was particularly relevant in Zimbabwe, where consumer preferences were evolving and there was a rising demand for flexible transportation options. Moreover, Zhang et al. (2020) found that firms expanding into mobility services while investing in electric vehicle (EV) technology reported higher profitability than those focused solely on traditional vehicle sales. However, it was essential to consider the potential challenges associated with implementing mobility services. Giesecke et al. (2021) pointed out that the costs associated with technology investments and operational expenses could complicate the profitability landscape. While mobility services offered new revenue opportunities, they could also introduce complexities that needed to be managed effectively. In the Zimbabwean context, where the adoption of mobility services was still in its early stages, Moyo & Nyoni (2022)

highlighted the importance of understanding how these services could impact profitability. They suggested that local automotive firms could leverage mobility solutions to adapt to economic constraints and meet the rising demand for affordable transportation options.

H_4: Connected vehicle technology adoption has a statistically significant effect on the profitability of motor industry firms in Zimbabwe.

Table 4: Regression analysis of the effect of connected vehicle technologies on profitability in motor industry firms in Zimbabwe

Coefficients[a]						
Model		**Unstandardised Coefficients**		**Standardised Coefficients**	**t**	**Sig.**
		β	**Std. Error**	**Beta**		
1	(Constant)	15.784	0.848		17.720	.000
	Connected vehicle technologies	0.389	0.044	0.546	9.341	.000
$R = 0.547^a$ $R^2 = 0.315$ $F(1, 202) = 87.218$						

a. Dependent Variable: Profitability

Table 4 reveals that connected vehicle technologies adoption has a weak positive and significant relationship with profitability in motor industry firms in Zimbabwe (β=0.389 with a corresponding p-value of $p<0.05$). This indicated that for every unit increase in the adoption of connected vehicle technologies, profitability increased by approximately 0.389 units, signifying a weak positive relationship. The coefficient of determination (R^2=0.315) indicated that about 31.5% of the variability in profitability could be explained by connected vehicle technologies adoption, while the remaining 68.5% was attributed to other factors not captured in this model. The F-statistic of $F(1,202) = 87.218$ with $p<0.05$ confirmed that the model fitted the data well and was statistically significant. Based on these results, hypothesis (H_4), which posited that connected vehicle technologies influenced the profitability of motor industry firms in Zimbabwe, was accepted. This finding suggested that the integration of connected vehicle technologies positively influenced profitability for automotive firms in Zimbabwe.

The positive impact of connected vehicle technologies adoption on profitability aligned with the insights from existing literature, which emphasised the transformative potential of these technologies in the automotive sector. Lee and Kwon (2018) found a strong correlation between the adoption of connected vehicle technologies and enhanced profitability metrics among automotive companies. Zhang et al. (2020) further support this view, indicating that firms integrating connected vehicle technologies experience improvements in service efficiency and customer satisfaction, both of which were fundamental to profitability. Additionally, Chen and Xu (2021) demonstrated that connected vehicle technologies led to significant reductions in operational costs. Their analysis showed that firms leveraging these technologies lowered maintenance expenses and enhanced supply chain efficiency, resulting in improved profit margins. This aligned with the current study's findings, suggesting that the effective implementation of connected technologies could enhance financial performance in the Zimbabwean automotive market. However, it was important to acknowledge the potential barriers to adoption. Some scholars argued that the initial investment required to implement

connected vehicle technologies could be prohibitive, particularly for smaller firms in developing markets like Zimbabwe. Moyo and Chikozho (2022) highlighted these concerns, suggesting that while the long-term benefits were evident, the upfront costs deterred local firms from embracing such innovations. They advocated for supportive policies and financial incentives to facilitate the adoption of connected technologies in the automotive sector. Furthermore, Ngwenya et al. (2023) illustrated that firms successfully integrating connected vehicle technologies gain enhanced data analytics capabilities. This allowed them to make informed decisions, optimise operations and tailor services to meet customer needs, ultimately driving profitability. Their quantitative study provided regional insights, reinforcing the idea that data-driven decision-making could be a significant advantage in enhancing financial performance.

Conclusion and Recommendations

The study revealed significant insights into the factors impacting the profitability of motor industry companies in Harare, Zimbabwe. Correlation analysis showed that there was a moderate positive and statistically significant relationship between expansion into electric vehicles and firm profitability ($\beta = 0.592$, $p < 0.05$), indicating that for every unit increase in EV adoption, profitability increased by approximately 0.592 units. Regression analysis revealed that 43% of the variability in profitability could be explained by the expansion into EVs (R^2=0.430), while the remaining 57% was attributed to other factors not captured in this model. On the link between automotive parts manufacturing and firm profitability, correlation analysis indicated a weak negative yet statistically significant relationship between automotive parts manufacturing and firm profitability (β =−0.245, $p<0.05$). The coefficient of determination (R^2=0.171), resulting from regression analysis, showed that about 17% of the variability in profitability could be explained by automotive parts manufacturing, while the remaining 83% was due to other factors not captured in this model. The unstandardised coefficient for mobility services from correlation analysis was β=0.398 with a corresponding p-value of $p<0.05$. This suggested that for every unit increased in mobility services, profitability increased by 0.398 units, indicating a weak positive relationship. The coefficient of determination (R^2=0.317) revealed that about 31.7% of the variability in profitability can be explained by mobility services adoption, while the remaining 68.3% is attributable to other factors not captured in this model. Finally, the unstandardised coefficient for connected vehicle technologies was β=0.389 with a corresponding p-value of $p<0.05$. This indicated that for every unit increase in the adoption of connected vehicle technologies, profitability increased by approximately 0.389 units, signifying a weak positive relationship. The coefficient of determination (R^2=0.315) indicated that about 31.5% of the variability in profitability could be explained by connected vehicle technologies, while the remaining 68.5% was attributed to other factors not captured in this model. The results of the study suggested that embracing related diversification strategies could enhance financial performance for motor companies in Zimbabwe, despite the challenges of operating in a dynamic and competitive environment.

Based on these findings, several recommendations can be made to enhance profitability within the automotive industry in Harare. Firstly, companies should prioritise the adoption of electric vehicles and invest in related technologies, given the clear profitability benefits associated with this transition. Embracing EVs aligns with global sustainability goals and positions firms to capture emerging market opportunities. Secondly, there is an urgent need to revamp the automotive parts manufacturing sector. Companies should explore advanced manufacturing techniques and foster collaborations to overcome existing challenges and improve efficiency. This could involve significant investment in technology and innovation to harness the potential

benefits of local production. Furthermore, automotive firms should actively develop and expand their mobility service offerings to capitalise on the positive relationship identified between these services and profitability. Lastly, the integration of connected vehicle technologies must be pursued strategically, with attention to the potential barriers related to initial costs. Policymakers are encouraged to create supportive frameworks and financial incentives to facilitate technology adoption among local firms, particularly smaller ones that might struggle with upfront investment requirements.

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