



Perceptions about Female Ownership of Commercial Motorcycle Taxis in Tanzania

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LIST OF ABBREVIATIONS AND ACRONYMS

AVE	Average Variance Extracted
CB-SEM	Covariance-Based Structural Equation Modelling
CFA	Confirmatory Factor Analysis
CHAWAPILA	Chama cha Waendesha Pikipiki Ilala
CMPD	Chama cha Madereva na Wamiliki wa Pikipiki Mkoa wa Dar es Salaam
CR	Composite Reliability
DFIs	Development Finance Institutions
ESCAP	Economic and Social Commission for Asia and the Pacific
FGD	Focus Group Discussion
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HTMT	Heterotrait-Monotrait Ratio
IPMA	Importance Performance Map Analysis
LATRA	Land Transport Regulatory Authority
MGA	Multi-Group Analysis
MoWT	Ministry of Works and Transport
MSEs	Medium and Small Enterprises
MSV	Mean Score Values
NHTSA	National Highway Traffic Safety Administration
R&I	Research and Innovation
RTA	Road Traffic Accidents
SDG	Sustainable Development Goals

SHIVYAMAPIDA	Shirikisho la Vyama vya Madereva Bodaboda na Bajaji Dar es Salaam
SMEs	Small and Medium Enterprises
TGNP	Tanzania Gender Network Programme
TRA	Tanzania Revenue Authority
UMWABILA	Umoja wa Waendesha Bodaboda Ilala
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
URT	United Republic of Tanzania
UWAPITE	Umoja wa Waendesha Pikipiki Wilaya ya Temeke
VIF	Variance Inflation Factor

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ABSTRACT

The study explores perceptions about female ownership of commercial motorcycle taxis in Tanzania. Specifically, the study examines perceptions about female ownership of commercial motorcycle taxis, determines the effects of perceptions about female ownership of commercial motorcycle taxis and identifies measures for promoting female ownership of commercial motorcycle taxis. The study is exploratory and uses a mixed method design to collect data from 400 participants found in Ilala District in Dar es Salaam region. The study employs questionnaires, unstructured interviews, FGD, and documentary analysis to collect data from motorcycle operators, owners, and respondents from LATRA, TRA, TGNP, and CMPD. Data are analysed descriptively and in a form of inferential statistics and content analysis using IBM SPSS Statistics version 26, SMARTLS 4, and NVIVO Software. The results reveal that most participants have an average of neutral to disagreement on economic, physio-psychological, and social-cultural perceptions.

The coefficient of determination reveals low contribution of the perceptions on the absence of commercial motorcycle taxis ownership. Further, the results indicate a significant relationship between economic and physio-psychological perceptions in the absence of female ownership of commercial motorcycle taxis. However, the study finds an insignificant relationship between socio-cultural perceptions and absence of female commercial motorcycle ownership. Regarding the size of the path coefficient, the study finds that physio-psychological perceptions contribute highly to the absence of female ownership of commercial motorcycles, followed by economic perceptions, while social-cultural factors negatively affect the absence of commercial motorcycle ownership. The study concludes that there is a paradigm shift to social-cultural factors and perceptions that have for many years been a hindrance towards female ownership of assets, business, and empowerment. The study recommends that additional efforts be directed at eradicating economic and physio-psychological perceptions, which lead to the absence of commercial motorcycle taxi ownership among females.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Ownership of an asset is crucial for socio economic development of both males and females in society. Among other things, asset ownership plays a significant role in social inclusion and income diversification and is a crucial input for empowerment (Das et al. 2017). Even though asset ownership is significant to all genders, there are gender differences in the transport sector or transport related businesses with respect to accessibility to transport modes, safety, and security when traveling, and the participation of females in transport research and innovation (R&I) (Hortelano et al., 2021). Community perceptions around the world claim that males and females are born to perform different tasks and functions in society which has resulted in some of the works being gender biased. Some research show that females in Europe are relegated to the domestic and private space, while males leave their houses for work (Pierik, 2022). Similar evidence is reported in other parts of the globe, such as Asia, America, and Africa (Naysmith & Rubincam, 2012 & Nikore et al., 2022).

The transport sector is growing fast in African countries due to the increase in population and the growth of industries. The demand for transport is higher than the supply, which prompts the necessity for alternative means of transport (Nzama & Ezeuduji, 2020). According to Konings (2006), uncertain public transport to serve people in different areas in developing countries opens opportunities for entrepreneurs to utilize lucrative demand to provide the service effectively. One of the potential opportunities is the motorcycle taxis business, which is fast growing and has minimal investments and operations requirements (Essau & Ngonzi, 2022; Maulaga et al., 2019). The motorcycle taxis business is becoming an important means of transportation in most parts of the developing world that occupies a critical position in the transport sector for goods, services, and people (Essau & Ngonzi, 2022).

Tanzania has 1,601,051 registered motorcyclists and 168,940 licensed commercial motorcycles taxis countrywide (Tanzania Revenue Authority, 2022; United Republic of Tanzania (URT), 2022). These statistics imply that the increasing use of vehicles may propose new enterprise ventures and asset ownership to both males and females, contributing to the local economy's growth and unemployment reduction (Maziku & Robert, 2014). However, literature shows a significant gap regarding ownership of assets since males have more access to property and asset ownership than females (United Nations, 2015; URT, 2021). Research reveals that males dominate the transport business more than females (Porter & Omwega, 2022; Ahmad et al., 2020). The Sustainable Development Goal (SDG) 5 calls for achieving gender equality and empowerment of all females, yet the Gender Inequality Index reveals unsatisfactory

Tanzania performance through a score of 0.513 in 2024 (United Nations Development Programme (UNDP), 2024)

According to Das et al. (2017), asset ownership significantly increases income, access to credit, and financial security for all genders. In the commercial motorcycle taxi industry, evidence shows that males dominate the business compared to females, particularly in operations, because the operating environment of the business attracts more males than females (Nyachieo, 2013; Uteng & Turner, 2019). Literature indicates that motorcycle operations seem more physically demanding, affecting female participation in the enterprise (Ahmad et al., 2020; Porter & Omwega, 2022). Generally, challenges hindering female participation in the transport sector relate to economic, cultural, and biological constraints (Jenkins et al., 2020; Naysmith & Rubincam, 2012; Peters et al., 2018; Uteng & Turner, 2019).

Although there is considerable evidence of gender disparity and little female engagement in the transport sector business, particularly the commercial motorcycle, little is known about perceptions on female ownership of such assets in Tanzania. Most of the studies conducted focused on the financial contributions of motorcycles; hence, aspects of gender were given little attention (Luvinga & Kilasara, 2020; Urioh, 2020).

In addition, available literatures explore more female travel experiences and challenges facing them in transportation and entrepreneurship (Abdullah et al., 2022; Hortelano et al., 2021; Naysmith & Rubincam, 2012; Mashapure et al., 2022; Solesvik et al., 2018) and not much about females' participation in commercial motorcycle taxis in terms of business ownership.

Considering the present gap, a study on the perceptions about female ownership of commercial motorcycle taxis in Tanzania is inevitable to determine whether perceptions affect female ownership of commercial motorcycle taxis. Understanding perceptions affecting female involvement in terms of ownership may help the policy makers and other development actors put in place intervention methods that can address the problem. Therefore, considering the present initiatives to develop the transport sector in Tanzania, this study investigated perceptions about female ownership of commercial motorcycle taxis in Tanzania to fill the gap.

1.2 Statement of the Problem

Access to asset ownership is the legal right of all genders to enjoy the associated benefits (UN, 2019; URT, 2021). Several reforms have been carried out to enhance female participation in social-economic development and promote their income and life status. World Bank, NGO's, private and public organizations, have been providing financial assistance, knowledge, and skills to females to promote their participation in different socio-economic activities for income generation and enterprise development around the country (Wikman et al., 2021). Evidence reveals that females do not enjoy the same legal access to asset ownership as males (United Nations, 2015; URT, 2022).

The situation is attributable to many factors, including the community's perceptions on assets ownership. However, rare studies address the inequality gap between males and females in the transport sector enterprise development and ownership (Wikman et al., 2021). Available studies observed female participation in the transport sector as passengers or drivers (Abdullah et al., 2022; Das & Zumbyte, 2017; Mashapure et al., 2022; Uteng & Turner, 2019). How the community perceives female participation in commercial motorcycle taxis in terms of ownership and how this impacts their participation in the business remain as grey areas (Abdullah et al., 2022; Nyachieo, 2015). Existing studies from other socio-economic activities observed methodological shortfalls particularly in the context, sample size, and sampling techniques posing the gap for generalization (Abdullah et al., 2022; Hortelano et al., 2021; Naysmith & Rubincam, 2012; Mashapure et al., 2022; Solesvik et al., 2018). Hence, there is a danger of increased deprivation of females from participation in commercial motorcycle taxis and economic empowerment at large that may deny their essential rights. This study, therefore, assessed perceptions about female ownership of commercial motorcycle taxis in Tanzania.

1.3 Objectives of the Study

The main objective of this study was to explore perceptions about female ownership of commercial motorcycle taxis in Tanzania. Specifically, the research focused on attaining the following objectives:

- i. To examine perceptions about female ownership of commercial motorcycle taxis.
- ii. To determine the effects of perceptions on the absence of female ownership of commercial motorcycle taxis.
- iii. To identify measures for promoting female ownership of commercial motorcycle taxis.

1.4 Research Questions

- i. What are the perceptions about female ownership of commercial motorcycle taxis?
- ii. To what extent does the perception limit female participation in commercial motorcycle taxis in terms of ownership?
- iii. What are the recommended measures to promote female ownership of commercial motorcycle taxis?

1.5 Significance of Study

This study is significant in a several ways. It adds to the available literature gaps on the perceptions about female participation in the motorcycle taxis business specifically on asset ownership. There is a significant gap in the literature, as most studies focused on gaps in other business enterprises. The study will also develop a basis for policy development toward addressing negative perceptions that impede female

participation in the ownership of commercial motorcycle taxis. Moreover, the study identifies the main constraints that females face in developing their commercial motorcycle taxi businesses in Tanzania. and suggests measures to promote female ownership of commercial motorcycle taxis.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition of Terms

This section explains the following terms: Social, psychophysiological, and economic perceptions; commercial motorcycle taxi and asset ownership.

2.1.1 Social perceptions

Social perceptions are individuals' perceptions of social pressure to show a behaviour or not (Anggadwita & Dhewanto, 2016). Likewise, the perceptions are made up of the social-cultural system through which people engage in their personal and private lives including population features, age, ethnicity, religion, values, attitude, lifestyles and associates (Maziku & Robert, 2014).

2.1.2 Psychophysiological perceptions

These are associated with psycho-physiological factors, which refer to a combination of physical, physiological, and biological properties of an individual that are assumed to be the basis of individual success (Furman et al., 2020; Mihaela, 2015).

2.1.3 Economic perceptions

These are associated with economic factors, which refer to the arrangement of necessary internal and external financial funds that influence business success. They also refer to basic information related to internal project financing and external market conditions that affect the business or an investment's value (Ayinaddis, 2023; Khan et al., 2021). For instance, the availability on access to capital, labour, raw materials, market, technology, and infrastructure.

2.1.4 Commercial motorcycle taxi

A motorcycle is "a motor vehicle with a seat or saddle for the use of the rider, designed to travel on not more than three wheels in contact with the ground, and weighing less than 1,500 pounds" (National Highway Traffic Safety Administration (NHTSA), 2021). In the Tanzania context a motorcycle refers to a 'Bodaboda' and a tricycle (Bajaji).

2.1.5 Assets Ownership

Assets Ownership is the legal ownership of material assets by an individual or entity's (Magambo & Nyamwesa, 2022).

2.2 Theoretical Framework

This section presents the essential theories that provide foundation on perceptions about female ownership of assets, especially social role theory and empowerment theory.

2.2.1 Social role theory

The theory proposes that societal expectations and norms shape gender roles and behaviour which have been influential in social psychology and gender studies. Its fundamental principle is that differences and similarities primarily arise from the distribution of males and females into social roles within their society through socialization and the formation of gender roles, as behaviours of males and females generally support and sustain the division of labour (Eagly & Wood, 2012).

Investigating how the roles of female motorcycle taxi owners are perceived can shed light on the influence of social expectations on their participation in this domain. The theory provides a framework to understand the social dynamics that shape perceptions about female ownership of commercial motorcycle taxis in Tanzania. By applying the theory, researchers gained a comprehensive understanding of the factors influencing these perceptions and the potential implications for gender equality and empowerment in this specific industry. This helped identify and examine stereotypes and prejudices related to females in male-dominated professions such as the transportation industry, particularly the motorcycle taxis business.

2.2.2 Empowerment theory

The theory focuses on how economic opportunities can empower individuals and groups, particularly females, by improving their social status, decision-making power, and overall well-being. It centres on helping marginalized people at individual, group and community levels gain the personal, interpersonal, and political power to improve their lives. In addition, the model seeks to challenge systems that prevent or hinder people from meeting their needs (Zimmerman, 2000). The theory sets a basis for understanding how ownership of motorcycle taxis empowers females economically and socially by providing insights into the dynamics of empowerment and its role in shaping perceptions.

2.3 Empirical Literature Review

This section presents empirical literature by providing insights on critical issues related to perceptions about female ownership of commercial motorcycle taxis.

2.3.1 Perceptions about female ownership of commercial motorcycle taxis

Commercial motorcycle taxis in Tanzania have become a hope to many unemployed young generations around Africa and Tanzania. According to Urioh (2020) commercial motorcycles create employment for youths mostly under 35 years of age, and their living standards have improved. The business is profitable, and worth undertaking (Luvinga & Kilasara, 2020).

There is insufficient evidence to determine the extent to which women own commercial motorcycle taxis. However, in some sub-Saharan African countries, such as Uganda, women do own motorcycle taxis, although they often employ men to operate them (Porter, 2011). In the same line of argument, Hayati et al. (2020)

confirmed that females in the informal sector have acquired assets such as land and automotive (vehicles and motorcycles). Female participation in the labour market enhances their confidence which is attributed to the social capital acquired from the marketplace, trainings offered, and income earned which increase their agency to make decisions at home and the workplace.

It is also important to note that female participation in commercial activities is affected by many challenges, for example, Uteng and Turner (2019) revealed that fear of sexual harassment, personal insecurity, vulnerability to fatal Road Traffic Accidents (RTA), lack of confidence, and cultural restrictions are among the factors that limit females toward engaging in the transportation sector. Though, the study did not focus on commercial motorcycle taxi ownership, it sheds enough light on the challenges facing females in the transport sector, particularly, ownership of commercial motorcycle taxis. Furthermore, the study employed a desk review of literature contrary to the current research which integrated both qualitative and quantitative approaches.

Furthermore, while there is insufficient evidence about female employment and engagement in the motorcycle business, there is evidence about female employment and asset ownership challenges. The challenges reflect limited employment opportunities due to many perceptions such as female roles being restricted to housekeeping, caring for children and taking care of in-laws. Also, female participation in employment and enterprise development may expose them to sexual relationships with men. Likewise, there are notions that it is difficult for females to balance household responsibilities and working life as they are overloaded with domestic/household tasks such as additional care for spouses and offspring. Moreover, other challenges limit female employment opportunities such as sexual harassment at the working place, lack of adequate business capital, lack of credit worthiness, lack of access to information, lack of business and social networking, low level risk taking and limited working hours due to pregnancy or maternity leave (Mashapure et al., 2022). Critically, most of these challenges mainly dominate rural areas rather than urban areas. The study has shed light on various perceptions regarding female participation in vegetable vending, operating clothing flea markets, and engaging in cross-border trade. In contrast, the current study is significant as it examines perceptions of female ownership of commercial enterprises in the transport sector, particularly commercial motorcycle taxis. However, even if the study was in the transport sector, it was not carried out in Tanzania. Hence it is difficult to generalize the findings. Furthermore, the study has methodological shortfall as it was qualitatively missing important aspects of numerical data to justify the problem, contrary to the current research which integrates both qualitative and quantitative approaches and hence addressed shortfalls that would not be possible in a qualitative study.

Studying female participation in driving activities, Naysmith and Rubincam (2012) found negative and positive perceptions regarding female involvement in the

business. The positive perceptions that support female participation in driving works emphasize that female drivers are more conscientious and less likely to endanger public safety and company property. In addition, they are less likely to engage in risky forms of behaviour including those associated with exposure to HIV/AIDS. Furthermore, females have safety records over males' drivers, higher quality of driving than males, good appearance and dress smart, and have risk aversion character. These more reliable drivers lead to a better company image and are less likely to work under the influence of alcohol or drugs and involve themselves in any form of risk. On the other hand, negative perceptions are female employment would be disruptive for the existing male workforce, and vulnerability with-regard to breakdowns, hijackings, and armed robbery. Likewise, females are believed to have unique needs such as pregnancy, dual roles at home and workplace, less capable of performing, and less desirable as employees (Naysmith & Rubincam, 2012).

In Sri Lanka, females experience similar challenges that affect their involvement in logistics and transportation sector businesses (Economic and Social Commission for Asia and the Pacific, (ESCAP) 2022). Though, the study seems to draw similar experiences, the contexts and focus differ, as the current research is conducted in Tanzania and focuses on perceptions about female ownership of commercial motorcycle taxis. In contrast, the other one was conducted in Asia and focused on female involvement in logistics and transport operations.

According to Das and Zumbyte (2017) female employment is hindered by the culture that instils the responsibility of childcare which overwhelms them, especially in their role as mothers, while preventing them from participating in the world of market. Literature indicates that gender mainstreaming in the motorcycle taxi operators favors almost all males due to a number of factors, such as male riders' confidence and readiness to take risks over females, lack of capital to own a motorcycle and lack of female strength to handle a motorcycle, especially during hazardous local tracks (Peters et al., 2018; Jenkins et al., 2020). However, lack of capital on owning the motorcycles may not be a real factor as most females own expensive transport assets such as tricycles and cars. On the other hand, female taxi riders are better at observing safe driving requirements than males. Though the studies have shown that the community has negative perceptions towards female participation in this growing business, more inquiry is needed to cover the perceptions about female ownership of commercial motorcycle taxis in Tanzania.

Again, female participation in employment and education is hindered by various factors, including objectification of their bodies, maternity leaves, gender, and biological roles (Alhawsawi & Jawhar, 2023). On the contrary, according to Boichuk et al. (2021) and Furman et al. (2020), psychophysiological related factors are essential in achieving the effectiveness of competitive activity of females in sports and mastering of studies. Since there is evidence in other areas, such as sports and education, the

current research focuses on establishing more evidence in the transport sector, particularly on female ownership of commercial motorcycle taxis.

According to Maziku and Robert (2014), female immobility, poor support from society members, and ethnicity negatively affect the performance of small and medium enterprises. On the other hand, family roles, level of education, and role models were essential factors in nurturing the performance of females (Small and Medium Enterprises) SMEs. On the contrary, a study conducted by Ayinaddis (2023) in Bahir Dar City, Ethiopia, revealed that demographic, socioeconomic, legal and administrative factors have a positive significance on female entrepreneurial performance in MSEs. However, the economic and social factors show the highest impact than other factors. Arguably, practical experience revealed that economic and social factors build the females confidence in performing any economic activities. In the same line of argument, a study conducted in Pakistan by Khan et al. (2021) added that internal factors, including the need for achievement, risk-taking, and self-confidence, positively and significantly influence the success of female-owned enterprises. Again, the literature presents challenges affecting the performance of female-led/owned SMEs in different sectors, which is not the focus of the current research. Thus, concerning to the present gap, this research is necessary to investigate the perceptions that affects female ownership of commercial motorcycle taxis.

2.3.2 Impacts of perceptions about female ownership of commercial motorcycle taxis in Tanzania

Motorcycle ownership, whether for personal or commercial use, is far higher among males than among females in Africa, following the standard pattern of ownership of vehicles and other assets, where females (especially rural ones) tend to suffer disadvantage (Bishop et al., 2018). In Tanzania, research findings reveal the existence of gender gaps attributed to lack of knowledge and awareness, lack of income, and traditions and customary norms (Magambo & Nyamwesa, 2022).

According to Jenkins et al. (2020), female participation in the motor taxi business allows them to pay their school fees, access markets, help their children financially, and help their other business interests. Machio et al. (2022) added that females are empowered through asset ownership, savings, and participation in decision-making on significant purchases, earnings, and health, resulting in multiple benefits, such as increased investment in children's education, health, and nutrition (Panta & Thapa, 2018). The findings of these studies imply that, female ownership of assets leads to many potential benefits particularly economically. Non-participation of a female ownership in assets, leads to the denial of many benefits, hence becoming highly dependent on their husband. Also, this may increase the burden on the male counterparts in meeting daily family needs.

According to Zhu et al. (2019), female motivations to establish businesses emanate from potential benefits in the form of income incentives, maintaining their freedom

and satisfaction, and facilitating personal growth. Other benefits are public recognition of their ability and achievement, family consideration, personal satisfaction, and reduced work family conflicts. The findings of this study imply that when communities have positive perceptions towards asset ownership, they will enjoy all these benefits. However, when the communities have negative perceptions towards assets ownership, it implies a lack of income among females, a high level of dependence and dissatisfaction, a lack of recognition and respect and the presence of work-family conflict. The research exposes the dangers related to the lack of female participation in asset ownership in the community which calls for further investigation into the effects of perceptions about female ownership of commercial motorcycle taxis in Tanzania.

2.3.3 Measures for promoting female ownership of commercial motorcycle taxi in Tanzania

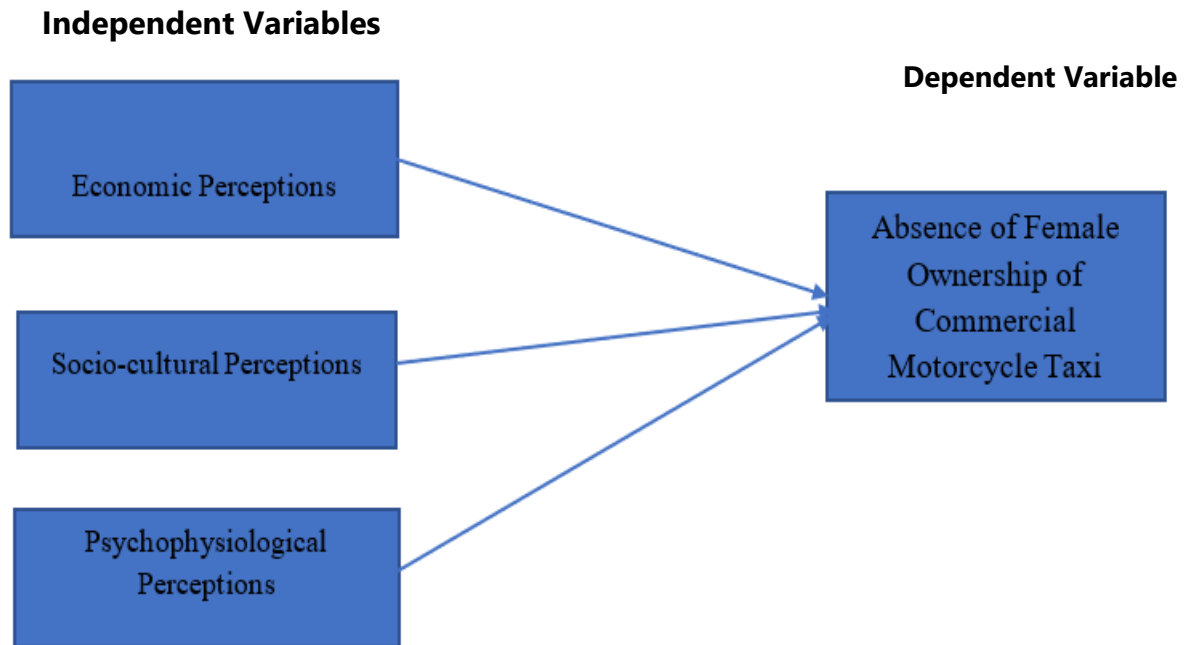
Abdullah et al. (2022) conducted a study on gender disparities in the access and use of urban public transport in Abuja, Nigeria. Among many issues, the study provided solutions for gender equity in public transport, reduction in the number of passengers in taxis, cleaner commercial vehicles, reduction cost of public transportation fares, and construction of more waiting areas with hygiene facilities. The study added that to promote female ownership, there is a need for the construction of alternative routes to ease the challenge of traffic congestion, provision of more transportation options suitable for all mobility needs (comfortable seats and backrests, adequate space), proactive maintenance of existing buses, construction of more terminals, effective management system at bus terminals, practical collaboration between government and private sectors.

Nikore et al. (2022) following a mixed methods approach, studied the extent of a low number of females in the Indian labour force. As a solution to the problem, various strategies were presented, including targeted policy interventions like gender quotas in public works, more access to credit for female micro-entrepreneurs, preferential procurement for female-owned businesses, greater flexibility in workplace arrangements, and gender targets for skill training. Although the study focused on female employment in various sectors rather than the transport sector in terms of ownership, it provided the best strategies that can enhance female participation in motorcycle business investment and asset ownership.

2.4 Conceptual Framework

The conceptual framework in Figure 1 presents perceptions that take the form of economic, sociocultural perceptions and psychophysiological perceptions leading to the absence of female ownership of commercial motorcycle taxis. This study assessed the relationship between two groups of variables to ascertain their truth.

Figure 1: Conceptual framework



The following hypotheses were formulated based on the presented literature review and conceptual framework in Figure 1.

- a) A significant relationship exists between economic perceptions and the absence of female ownership of commercial motorcycle taxis (H_1).
- b) A significant relationship exists between socio-cultural perceptions and the absence of female ownership of commercial motorcycle taxis (H_2).
- c) A significant relationship exists between psychophysiological perceptions and the absence of female ownership of commercial motorcycle taxis (H_3).

CHAPTER THREE

METHODOLOGY

3.1 Philosophy and Approach

The research philosophy of the study is pragmatism, which combines deductive and inductive approaches, implying mixed-method research. The selection of mixed method research is based on the ability of the approach to gather qualitative and quantitative information to allow the best answers to research questions that guided this study. The results obtained through different methods enriched and improved the understanding of the perceptions about females' ownership of commercial motorcycle taxis and fostered new ideas in providing answers to questions that could be difficult to answer by using a single method (Teddle & Tashakkori, 2010). The researcher used the method concurrently to ensure they complement each other in data collection, analysis and interpretation.

3.2. Research Design and Study Areas

The study adopted a cross-sectional survey design and exploratory case study to explore perceptions about female ownership of commercial motorcycle taxis in Tanzania. The design choice was attributed to a distinctive advantage over other research designs when "how" or "why" questions are posed to discover perceptions about female ownership of commercial motorcycle taxi businesses in promoting enterprise development. The study was conducted in the Dar es Salaam region, specifically in Ilala district. The researcher selected the district because it had many young males and females who have established businesses in different industries, particularly, commercial motorcycle taxis (Ministry of Works and Transport (URT), 2022).

3.3. Target Population, Sampling Techniques and Procedures

The target population was all commercial motorcycle taxi stakeholders, including females and males commercial motorcycle taxi operators, owners of commercial motorcycle taxis; Land Transport Regulatory Authority (LATRA), Tanzania Regulatory Authority (TRA), Tanzania Gender Network Programme (TGNP), Associations of Motorcycle Drivers and Owners "Shirikisho la Vyama vya Madereva Bodaboda na Bajaji Dar es Salaam" (SHIVYAMAPIDA) and "Chama cha Madereva na Wamiliki wa Pikipiki Mkoa wa Dar es Salaam" (CMPD), and females conducting business around the commercial motorcycle parking stations in Ilala District.

The research team obtained Sixty (60) commercial motorcycle taxi parking stations from 36 wards in the district, whereby five (5) motorcycle taxi drivers from each parking station were selected using convenient and stratified sampling techniques to make a total of 300 motorcycle taxi drivers. Furthermore, the research team used stratified sampling techniques to get male and female owners of the business. In addition, the

team used snowballing sampling techniques to get 40 female owners of motorcycle taxis from the district, as they were scattered in different areas and were not easy to find. Consequently, 50 females conducting business around the parking stations in the district were randomly selected to participate in the study.

Purposive sampling was employed to select nine (9) officers from LATRA, three (3) officers from Tanzania Gender Networking Programme (TGNP), and two (2) TRA officers who register commercial motorcycles. Furthermore, the other 10 participants were randomly selected from associations of motorcycle drivers and owners. Six (6) participants were from Ilala districts from "Chama cha Waendesha Pikipiki Ilala" (CHAWAPILA) and "Umoja wa Waendesha Bodaboda Ilala" (UMWABILA) and other four (4) from "Chama cha Wamiliki na Madereva wa Pikipiki Dar es Salaam" (CMPD). This sampling added a total of 400 participants to the study.

According to TRA (2023), Tanzania has 873,007 officially registered commercial motorcycles half of them, equivalent to 436,003, estimated to be in Dar es Salaam. Consequently, Ilala District has 153,000 commercial motorcycles, the largest number compared to other districts in the city. Thus, the district was selected based on a larger number of registered commercial motorcycles. According to Bukhari (2021), a study conducted in a population size of 1,000,000 requires a sample size of 384; therefore, a sample size of 400 used in this study is representative as the number of commercial motorcycles in Ilala District is only 153,000.

3.4. Data Collection Method

The researcher used Questionnaires (5 levels Likert scale questions) and Semi-structured interview (Interview Guide) for data collecting primary data. A close-ended questionnaire was employed to collect quantitative data from commercial motorcycle drivers and females conducting business around parking stations in the district. The questions in the questionnaires captured information about the participants' economic, social-cultural, and psychophysiological perceptions that affect female ownership of commercial motorcycle taxis. Researchers conducted semi-structured interview to collect qualitative data from the owners of commercial motorcycle taxis to reveal practical experiences in ownership and operations of the business. The order of questions in the semi-structured interview was varied depending on the flow of conversation. Conversely, researchers employed additional questions to explore research questions and objectives given the nature of the situation and response (Saunders et al., 2012). Focused Group Discussion (FGD) to collect qualitative data from LATRA, TRA, TGNP, associations of motorcycle drivers, and owners. The FGD was conducted with the key stakeholders to gather information regarding perceptions affecting female ownership of commercial motorcycle taxis and the possible intervention methods towards reducing or alleviating the problem. All interviews were recorded and documented. Later all, qualitative data from semi-structured interviews and FGD were transcribed and translated into English language.

3.5. Data Analysis

As the study adopted a mixed method design, the researchers collected quantitative and qualitative data necessitating conducting both types of analysis. The details of how analysis was carried out for each data type, are provided hereunder.

3.5.1 Quantitative data analysis

Data analysis adopted Partial Least Square (PLS)-Structural Equation Modeling (SEM) and analysis techniques using SMARTPLS 4. Generally, SEM-PLS is used over the Covariance-Based Structural Equation Modeling (CB-SEM) as the goal was predicting key target constructs as well as identifying key “driver” constructs, because the structural model was complex, (with many constructs and many indicators), and the structural model has no circular relationships (Hair et al., 2017). The metric nature of the data collected created the necessity for using SEM. Furthermore, SEM was used in this study to assess the prediction power of the exogenous variables on endogenous variables and confirmation of the theories that related to communities’ perceptions.

User-friendly software like SMART-PLS supports the uses of SEM-PLS (Hair et al., 2011). Hence, after entering data on the IBM SPSS Statistics version 26, then the data was exported to SMARTPLS 4 software for SEM-PLS analysis. Then, the analysis on SMARTPLS 4 started by executing the PLS-SEM algorithm, which involved a comprehensive evaluation of the results of the reflective measurement model (Confirmatory Factor Analysis (CFA) by examining the indicator loadings (reliabilities), assessing internal consistency reliability by using composite reliability, assessment of convergent validity of each construct measure by using the average variance extracted (AVE) and assessment of discriminant validity. After evaluating the measurement model and being satisfied with the results, the next step involved the structural model by assessing the collinearity using Variance Inflation Factor (VIF), examine the R^2 value of endogenous construct(s), and checking the f^2 -effect size. Other activities included examining the Q^2 as an assessment of the structural model’s capability to predict, exploring the statistical significance (Table 4.12) and relevance/size of the path coefficients (Table 4.11) to assess the extent to which the data reflect the hypothesized relationships (Hair et al., 2017; Hair et al., 2011, 2019; Hair et al., 2017).

3.5.2 Qualitative Data Analysis

Thematic analysis was employed to analyse qualitative data based on the themes extracted from research objectives and questions (Castleberry & Nolen, 2018; Clarke & Braun, 2017). INVIVO 12 software was employed to enhance effective management of qualitative data in providing in-depth understanding of the phenomena. Data from semi-structured interview and FGD were imported into software as individual files and nodes (themes) were formulated. Then a careful coding process was performed by considering mother and child nodes. After the coding process, researchers ran several queries including matrix quarry, framework matrices, and cross tab.

3.6. Reliability and Validity

As explained in subsequent sections, the reliability and validity of both qualitative and quantitative data were ensured using different methods.

3.6.1 Reliability and validity for quantitative data

Both external and internal consistency procedures were followed in order to ensure the reliability of the measuring instruments. The reliability of a test by external consistency was done through a test-retest method whereby test results for a group of participants were compared in two different periods (Robert, 2006). Under the test-retest method, five (05) motorcycle drivers and five (05) females were asked twice to complete the questionnaire and raise concerns as they completed the survey. In the first session, there were many concerns related to the clarity of questions, grammatical errors, and logic of some questions. All issues raised were taken care of, and there were no serious concerns in the second meeting.

In the course of undertaking Structural Equation Modeling (SEM) using SMARTPLS 4 (Hair et al., 2021) the internal consistency reliability, which refers to the extent to which the items in a test measure the same construct (Ho, 2006), was checked by the use of composite reliability. The widely accepted social science cut-off is 0.7-0.9 for composite reliability (Hair et al., 2017). Indicators' reliability was also checked, where the standardized loading for most indicators was above 0.70. The reliability of the data was also ensured by using customized questions obtained from different studies on community perceptions toward female asset ownership (Saunders et al., 2012).

Questions were systematically developed for each specific objective to ensure the validity of data. In addition, wording of the questions was made clearly understood by the participants (Saunders et al., 2012), and questions were systematically developed as per each specific objective. Data validity was also enhanced by conducting a pre-test where ten (10) participants were asked to respond to the questions on the questionnaire. This pre-testing enabled the researchers to adjust a several observed weaknesses in the data collection tools, such as the use of abbreviations, the number of indicators for each construct, the wording of questions, and some minor changes in the questions related to demographic characteristics of the participants.

Convergent validity, which is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2017), was tested using Average Variance Extracted (AVE). An AVE value of 0.50 or higher indicates that on average the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more variance remains in the error of the items than in the variance explained by the construct (Hair et al., 2017).

Discriminant validity, which is the extent to which a construct is truly distinct from other constructs by empirical standards (Hair et al., 2017), was measured using genuinely heterotrait-monotrait (HTMT) ratio. Henseler, et al. (2014) and Ahrholdt, et al. (2017)

advise that discriminant validity based on the report and analysis of (HTMT) ratio which, seems to be better than the Fornell-Larcker criterion results, and cross-loadings that perform poorly, mainly when indicator loadings of the constructs under consideration differ only slightly. The rule of thumb is that the HTMT value above 0.90 suggest a lack of discriminant validity, while the threshold value of 0.85 or less, seems appropriate (Hair et al., 2017).

Furthermore, the researchers ensured validity was through a large sample size and multiple participants. Similarly, a pilot study was conducted in Ilala District to ensure the validity and reliability of quantitative data (Creswell, 2009).

3.6.2 Reliability and validity for qualitative data

The reliability and validity of qualitative data were ensured through the trustworthiness of qualitative data whereby triangulation of the data collection methods, member check, description of the research area and peer briefings, were ensured to enhance credibility, transferability, dependability, and conformability (Korstjens & Moser, 2018).

3.7 Ethics

The study considered the issue of ethics in research. In implementing this, researchers obtained research permits from respective authorities and sought participants' consent before the study. Likewise, participants were assured of privacy with regard to the information they provided. Researchers avoided plagiarism and data fabrication to maintain the integrity of the study.

CHAPTER FOUR

RESEARCH RESULTS AND DISCUSSION

4.1 Information About the Participants

The study explored various pieces of information about the respondent's occupation, gender, age group, marital status, and education level. Table 1 presents the information.

Table 1: Information about the participants

Information	N	%
Status/Activity		
Motorcycle Owner	103	25.8
Motorcycle Driver	196	49.0
Other Businesses than Bodaboda	100	25.0
Gender		
Male	251	62.5
Female	149	37.5
Marital Status		
Single	160	40
Married	240	60
Age, category (Years)		
Below 20	257	65.9
20-30	95	24.4
31-40	48	12.3
Education Level		
Primary Education	113	28.3
Secondary Education	155	38.8
Vocational Training Education	45	11.3
University Education	84	21.0
No Education	3	.8

Source: Field data (2023)

During the study several demographic characteristics were explored as presented in Table 1. According to Lavrakas (2008), the demographic measures are important because numerous studies have demonstrated that opinions are formed primarily through an individual's environment, and they also allow researchers to know how closely the sample resembles the target population. Among the participants, 49.1 per cent were motorcycle drivers, 25.8 per cent were motorcycle owners, and 25per cent were females engaged in other small businesses than 'bodaboda'. These results show

that the opinions presented in the study were elicited from reliable groups directly or indirectly connected with motorcycle ownership among females.

On the gender of the participants, 62.5 per cent were male, and 37.5 per cent were female. It was essential to include the participants of different genders as this may assist in exploring whether the opinions on females owning motorcycles vary as per gender or not. In the age group, the most participants (65.9%) were below 20 years, 24.4 per cent were between 20-30 years, and 9.7 per cent were between 31-40 years. The results on age groups imply that the participants were mature enough to express their opinions regarding females' participation in motorcycle commercial taxis ownership. Regarding to marital status, 60% were married, and 40% were single. The study revealed that the majority of participants 155 (38.8%) were holders of secondary certificate education, followed by 113 (28.3%) with primary education, 84(21%) with university education, 45(11.3%) with vocational training education and 3(0.8%) with no education. Marital status and education level variables were also included in the study to ascertain if community perceptions may vary based on those characteristics of the participants. Nonetheless, the findings revealed that there were no significant differences of opinion regarding marital status and education level variables and any other attributes of the participants.

4.2 Results of the Study

4.2.1 Perceptions about females' ownership of commercial motorcycle taxis

The perceptions were grouped into three groups of economic perceptions, social-cultural perceptions, and psychophysiological perceptions. The study used questionnaires, an interview guide, and focus group discussions to capture the participants' perceptions. The following are the questionnaires results starting with rating of the economic perceptions presented in Table 2.

Table 2: Economic perceptions about female ownership of commercial motorcycle taxis

Perceptions	N	Minimum	Maximum	Mean	Std. Deviation
Females cannot own commercial motorcycle taxis as they lack adequate business capital	399	1	5	3.16	1.470
Females cannot own commercial motorcycle taxis as they lack adequate training in assets ownership	398	1	5	3.09	1.366
Females cannot own commercial motorcycle taxis as are challenged by situations that require creativity	395	1	5	3.08	1.418

Females cannot own commercial motorcycle taxis as they lack business networking	395	1	5	3.07	1.380
Females cannot own commercial motorcycle taxis because they don't like to do things that others may not think of	397	1	5	3.01	1.404
Females cannot own commercial motorcycle taxis as they lack access to information	394	1	5	2.93	1.408
Females cannot own commercial motorcycle taxis because they cannot make decisions that others call 'innovative'	397	1	5	2.90	1.313
Females cannot own commercial motorcycle taxis because they cannot do something challenging	392	1	5	2.89	1.455
Females cannot own commercial motorcycle taxis because they cannot entertain new ideas with enthusiasm	398	1	5	2.86	1.409
Females cannot own commercial motorcycle taxis as they lack credit worthiness	396	1	5	2.54	1.378
Females cannot own commercial motorcycle taxi as this may make her dominate the male partner	398	1	5	2.39	1.379

Source: Field Data (2023)

During the interviews and focus group discussions, the participants had different opinions concerning economic factors. The participants declared that commercial motorcycle taxis are one of the fast-growing businesses, which has made significant economic improvements for both females and males. Though females are among the beneficiaries in the business, it was revealed that few of them participate in the ownership of the businesses, and as a result, most of them are denied from enjoying the advantages of the businesses. It was further revealed that the motorcycle taxis business has brought solutions to unemployment challenges for many young men, and their lives have improved. One interviewed young man pointed out that:

Many of us as young men have found a solution in the motorcycle business. We were jobless with nothing to do, and life was really tough. But now everything has changed. At least we have something to do, and life becomes meaningful as we can take good care of our families and life in general.

Females are struggling with life hardship due to unemployment despite the existence of the motorcycle business. During FGD with TGNP, one participant narrated that:

Young females are suffering from unemployment worldwide and struggling with life challenges, although there is opportunity in the motorcycle business. Something must be done to make sure that females are free from these unhealthy traditions that limit their participation in the business.

Furthermore, during interviews, it was noted that females are not benefiting because they are not participating in the business. Findings revealed that 35 out of 40 females who own motorcycles claimed that the income of many young males has increased, unlike many young females. One female pointed out that:

Most females suffer from hardship of unemployment as compared to male, even though there are opportunities to invest in the commercial motorcycle business. However, our traditions and beliefs have continued to limit female involvement in the business venture. As a result, most of them are facing financial problems to the extent that they can't even bring something to the table.

The descriptive result on economic perceptions reveals that the majority of participants are neutral that females cannot own motorcycle commercial taxis as they lack adequate business capital. This was found on a Mean Score Values (MSV) of 3.2 different from what was reported by Mashapure et al. (2022). On the contrary Jenkins et al. (2020) found that the lack of money to purchase a motorcycle is among the critical challenges facing females' participation in the business. In addition, the participants were still neutral on the perception that females cannot own motorcycle commercial taxis as they lack adequate training on assets ownership (3.09), females cannot own motorcycle commercial taxis as are challenged by situations that require creativity (3.08), females cannot own motorcycle commercial taxis as they lack business networking (3.07), and females cannot own motorcycle commercial taxis because they don't like to do things that others may not think of (3.01).

Furthermore, participants disagreed that females cannot own motorcycle commercial taxis because they lack information access (2.93). These results differ from those by ESCAP (2022), that lack of information on career prospects and industry opportunities limits females labour participation in the logistics and transportation sector. In addition, many participants disagreed that females cannot own motorcycle commercial taxis because they cannot make decisions that others call 'innovative' (2.90), females cannot own motorcycle commercial taxis because they cannot do something challenging (2.9), females cannot own motorcycle commercial taxis because they cannot entertain new ideas with enthusiasm (2.86). These results differ from those by Abdullah et al. (2022), who found low enthusiasm affecting female

participation in the transport sector. Few participants were of the view that females cannot own motorcycle commercial taxis due to lack of creditworthiness (2.54), contrary to Mashapure et al. (2019), who found popular perceptions that lack of creditworthiness, lack of access to information, lack of business and social networking are critical hindrances among females. Again, participants were against the view that females cannot own motorcycle commercial taxis which may make them dominate the male partners (2.39).

After exploring participants' opinions on economic perceptions, socio-cultural perceptions followed. The results are presented in Table 3.

Table 3: Social-cultural perceptions about female ownership of motorcycle commercial taxis

Perceptions	N	Minimum	Maximum	Mean	Std. Deviation
Females cannot own commercial motorcycle taxis as are less capable of performing	394	1	5	3.09	1.428
Females cannot own commercial motorcycle taxis as their roles are being restricted to housekeeping and domestic/household tasks such as additional care to spouse and offspring	395	1	5	2.81	1.395
Females cannot own commercial motorcycle taxis as majority of practitioners in this business are men and therefore females are likely to be exposed to sexual relationship	394	1	5	2.78	1.282
Females cannot own commercial motorcycle taxis due to cultural restrictions	395	1	5	2.69	1.424
Females cannot own commercial motorcycle taxis as it is difficulty in striking a balance between household responsibilities and business management	394	1	5	2.61	1.329
Females cannot own commercial motorcycle taxis as this is male dominated business	391	1	5	2.45	1.321
Females cannot own commercial motorcycle taxis as are less hard working than males	393	1	5	2.43	1.384

Females cannot own commercial motorcycle taxis as they can never do things which they are not sure of.	394	1	5	2.38	1.366
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Source: Field Data (2023)

The findings from the interviews revealed that 25 out of 40 females who own commercial motorcycles pointed out that tradition and beliefs exclude females from exploiting opportunities brought by the commercial motorcycle taxis. As a result, some of the females are forced to engage in immoral activities such as prostitution just to raise income. One female reported during the interview:

This is very unfair. I know some males and females who have graduated from universities; males have engaged in the motorcycle business, but females have become prostitutes because they have nothing to do for income generation, despite availability of motorcycle loans (both two and three wheelers) from NMB and other firms.

During FGD with CMPD one participant pointed out that:

Despite that, currently, NMB is providing motorcycle business loans with minimal and affordable down payment; yet most young females are complaining about the hardship of life to the point they become prostitutes. This is unbelievable; we are giving them the information, but they still don't want to grab the opportunity.

The descriptive results on socio-cultural perceptions about females' ownership of motorcycle commercial taxis reveals that, most participants were neutral that females cannot own motorcycle commercial taxis as they are less capable of performing (3.09). The findings are close to those by Naysmith and Rubincam (2012) who found negative perceptions that females are less capable of performing and less desirable as employees. However, the author (ibid) found many positive qualities among females, such as safety records and higher quality of driving than males implying that females can perform. Peters et al. (2018) found many opportunities for females to participate in motorcycle taxi business.

The most participants disagreed that females cannot own motorcycle commercial taxis as their roles are restricted to housekeeping and domestic/household tasks such as additional care to spouses and offspring (2.81). The results were also arrived at in a study by Das and Zumbyte (2017) that females face the challenge of a culture that overwhelmingly instils the responsibility of childcare into them, especially their role as mothers. Similarly, Jenkins et al. (2020) found a common perception about females being seen as responsible for taking care of children in the home, hence limiting their

participation in commercial taxi business. In addition, the findings revealed that many participants disagreed that females cannot own motorcycle commercial taxis as the majority of practitioners in this business are males. Therefore, females are likely to be exposed to sexual relationships (2.78). The results are different from those by Uteng and Turner (2019), who found that sexual harassment limits females' participation in the transport sector as well as Jenkins et al. (2020), who found that females riders are seen as prostitutes. There is also a danger of putting strain on their relationships because husbands or partners would become jealous.

The study found that participants were against the view that females cannot own commercial motorcycle taxis due to cultural restrictions (2.69), and females cannot own commercial motorcycle taxis as it is challenging to balance between household responsibilities and business management (2.61). The results differ from those by Mashapure et al. (2022), who found dominance of the perception that females roles are being restricted to housekeeping, caring for children and taking care of the in-laws, exposure to the sexual relationships, difficulty in striking a balance between household responsibilities and working life, overloaded with domestic/household tasks such as additional care to spouse, offspring, all as issues limiting female to participate in transport related duties fully. Furthermore, the respondents disagreed that females cannot own motorcycle commercial taxis as this is a male dominated business (2.45), females cannot own commercial motorcycle taxis as they are less hard workers (2.43) and females cannot own commercial motorcycle taxis as they cannot do things which they are not sure of (2.43).

The results reveal that the majority of participants are neutral that females cannot own motorcycle commercial taxis as they lack adequate business capital. This was found on a Mean Score Values (MSV) of 3.2 different from what was reported by Mashapure et al. (2022). On the contrary Jenkins et al. (2020) found that the lack of money to purchase a motorcycle is among the critical challenges facing females' participation in the business. In addition, the participants were still neutral on the perception that females cannot own motorcycle commercial taxis as they lack adequate training on assets ownership (3.09), females cannot own motorcycle commercial taxis as are challenged by situations that require creativity (3.08), females cannot own motorcycle commercial taxis as they lack business networking (3.07), and females cannot own motorcycle commercial taxis because they don't like to do things that others may not think of (3.01).

Furthermore, participants disagreed that females cannot own motorcycle commercial taxis because they lack information access (2.93). These results differ from those by ESCAP (2022), that lack of information on career prospects and industry opportunities limits females labour participation in the logistics and transportation sector. In addition, many participants disagreed that females cannot own motorcycle

commercial taxis because they cannot make decisions that others call 'innovative' (2.90), females cannot own motorcycle commercial taxis because they cannot do something challenging (2.9), females cannot own motorcycle commercial taxis because they cannot entertain new ideas with enthusiasm (2.86). These results differ from those by Abdullah et al. (2022), who found low enthusiasm affecting female participation in the transport sector. Few participants were of the view that females cannot own motorcycle commercial taxis due to lack of creditworthiness (2.54), contrary to Mashapure et al. (2019), who found popular perceptions that lack of creditworthiness, lack of access to information, lack of business and social networking are critical hindrances among females. Again, participants were against the view that females cannot own motorcycle commercial taxis which may make them dominate the male partners (2.39).

After exploring participants' opinions on the sociocultural perceptions, then psychophysiological perceptions followed. The results are presented in Table 4.

Table 4: Psychophysiological perceptions about female ownership of commercial motorcycle taxis

Perceptions	N	Minimum	Maximum	Mean	Std. Deviation
Being pregnant, leaving alone the side effects may hinder females' ability to manage commercial motorcycle taxis	392	1	5	2.99	1.458
Females cannot own commercial motorcycle taxis as females have low control over the direction of their life	393	1	5	2.99	1.417
Side effects of pregnancy such as nausea or backache may influence females perceived physical capability to operate commercial motorcycle taxis	393	1	5	2.98	1.428
Females cannot own commercial motorcycle taxis as females have low level of confidence	392	1	5	2.90	1.395
Females cannot own commercial motorcycle taxis because they do not believe success depends on their own doing	392	1	5	2.85	1.324
Post-pregnancy effects may discourage females ownership of commercial motorcycle taxis	393	1	5	2.73	1.391
Menstrual cycle phase may influence performance in administering commercial motorcycle taxis business	392	1	5	2.73	1.318
Females cannot own commercial motorcycle taxis due to low ambition	387	1	5	2.57	1.301

Females cannot own commercial motorcycle taxis because they don't like to achieve something and get recognition for it	393	1	5	2.46	1.205
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Source: Field Data (2023)

During the interviews, participants had different opinions in relation to psychophysiological perceptions. One respondent said:

Owning a motorcycle requires you to have a high level of confidence. I remember I had one driver who was operating my 'bodaboda'. Initially he was submitting the agreed amount at the end of every week, after a number of months, he changed and was not submitting the collection and when I asked the reasons behind, he threatened to beat me. I know this happened because I am a woman, if I was a man, this could not have happened. So, it is very challenging to invest in this kind of business.

Several females declared that everything was going well with their boda-boda business. Things changed after conceiving, whereby the pregnancy made them not to be effective in administering the business, and the operators took advantage of the situation. This discouraged them from continuing to invest in the business.

Another respondent said:

I loved to invest in the business. But the major challenge was my husband whereby wherever I received the collection he would demand I hand it to him, and when I rejected the proposal, the house lacked peace for the entire week. I never enjoyed the returns from the businesses hence I decided to become a Mama Ntilie (food-vendor).

The descriptive results on the community psychophysiological perceptions about female ownership of commercial motorcycle taxis reveals that the majority of the participants disagreed that being pregnant, leaving alone the side effects, may compromise females' ability to manage commercial motorcycle taxis (2.99). The results are contrary to those by Naysmith and Rubincam (2012), who found unique needs, such as pregnancy affecting female participation in transport duties. Indeed, most females effectively participate in a various activity while pregnant, such as driving cars. So, it might not be true that pregnancy restricts females from participating, in transport activities. The participants also disagreed that females could not own commercial motorcycle taxis as females have low control over the direction of their lives (2.99), side-effects of pregnancy such as nausea or backache may influence females perceived physical capability to administer commercial motorcycle taxis (2.98) and females cannot own commercial motorcycle taxis as females have low level of confidence

(2.90). Again, this is contrary to findings in a study by Uteng and Turner (2019) who found that confidence limits females from participating in the transport sector.

The participants disagreed that females cannot own commercial motorcycle taxis because they do not believe success depends on their own doing (2.85), post-pregnancy effects may discourage females from owning commercial motorcycle taxis (2.73), menstrual cycle phase may affect performance in administering commercial motorcycle taxis negatively (2.73). Alhawsawi and Jawhar (2023) found that females' participation in employment and education is hindered by objectification of their bodies, maternity leaves, gender and biological roles. Furthermore, the participants disagreed that females cannot own commercial motorcycle taxis as they have low ambition (2.57) and females cannot own commercial motorcycle taxis as they don't like to achieve something and get recognition (2.46).

4.2.2 Quantitative results on the effects of perceptions on the absence of female ownership of commercial motorcycle taxis

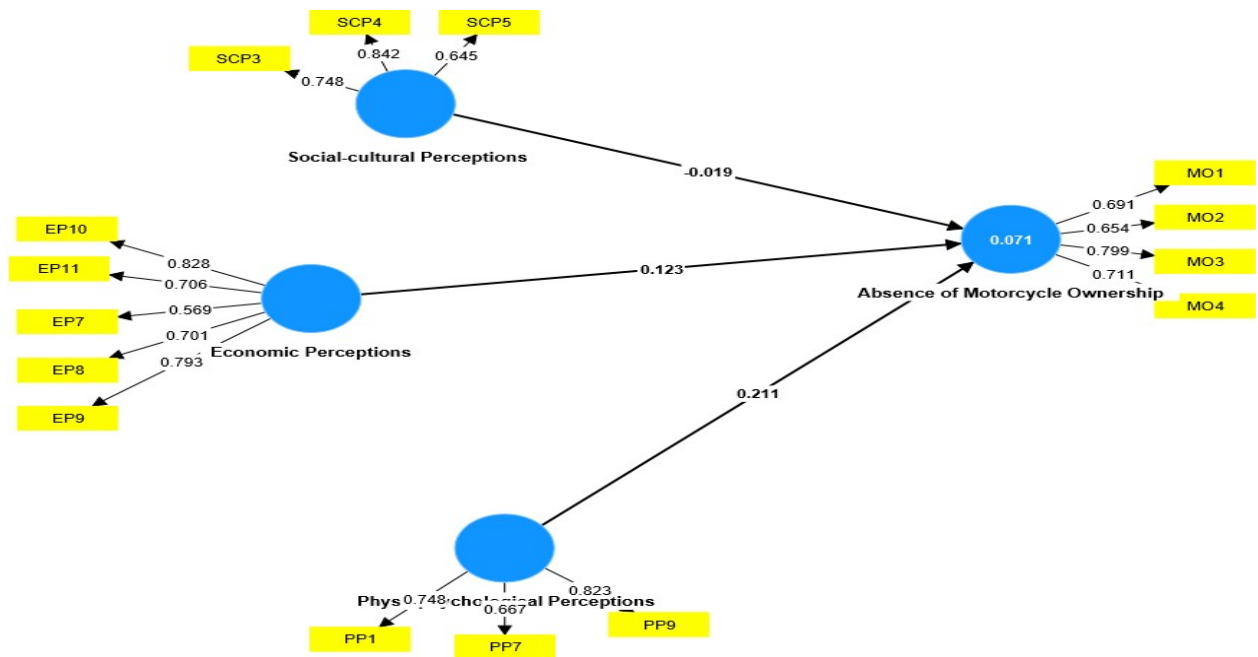
4.2.2.1 Assessment of the reflective measurement model

This section presents the findings on the assessment of the reflective measurement model (by checking indicators loadings, internal consistency, convergent validity, and discriminant validity). After these sections, the findings on the assessment of the structural model follow.

Indicators Loadings

The examination of the indicator loadings (reliabilities) as presented in Figure 2, revealed that the loadings for the majority of indicators, in Figure 2, were above the recommended 0.70 with the exception of four (4) indicators which had loadings of 0.645 (SCP5), 0.569 (EP7), MO1(0.691), and 0.654(MO2). This implies that each construct explains more than 50 percent of the indicator's variance, thus providing acceptable item reliability. Regarding the Internal Consistency of the variables, the study found that all constructs had values above 0.7 and less than 0.95, as recommended by Hair et al. (2018). These findings, therefore, revealed the presence of internal consistency of items and thus higher levels of reliability. Going to convergent validity as tested by using Average Variance Extracted (AVE), the AVE value of 0.50 and above was obtained in all constructs. This means that, on average, each construct in the model explains more than half of the variance of its indicators, thus the presence of convergent validity.

Figure 2: Indicator's (loadings) reliabilities



Source: Field Data (2023)

Internal Consistency

Due to its strength, composite reliability (CR) was used to measure the internal consistency of items (Hair et al., 2018). The Internal Consistency results as presented in Table 5 revealed that all constructs had values above 0.7 and less than 0.95, as recommended by Hair et al. (2018). These findings, therefore, revealed the presence of internal consistency of items and thus higher levels of reliability.

Convergent Validity

Convergent validity was tested by using Average Variance Extracted (AVE) and the value of 0.50 and above was obtained in all constructs. This means that, on average, each construct in the model explains more than half of the variance of its indicators, thus the presence of convergent validity. These results are presented in Table 5.

Table 5: Internal consistency and convergent validity

Constructs	Composite reliability (rho_c)	Average variance extracted (AVE)
Absence of Motorcycle Ownership	0.807	0.512
Economic Perceptions	0.845	0.526
Physio-psychological Perceptions	0.791	0.560
Social-cultural Perceptions	0.792	0.562

Source: Field Data (2023)

Discriminant Validity

Discriminant validity was measured by using the heterotrait-monotrait (HTMT) ratio, which seems to be better than the Fornell-Larcker criterion results and cross-loadings, which perform poorly mainly when indicator loadings of the constructs under consideration differ only slightly (Hair et al., 2018). The HTMT ratio results revealed the presence of discriminant validity as all values were less than 0.85 as recommended. These results established the usefulness of the entire measurement model and, therefore, permitted the evaluation of the structural model as Hair et al. (2019) advised. These results are presented in Table 6.

Table 6: Discriminant validity results

Constructs	Absence of Motorcycle Ownership	Economic Perceptions	Physiopsychological Perceptions
Absence of Motorcycle Ownership			
Economic Perceptions	0.271		
Physiopsychological Perceptions	0.366	0.623	
Social-cultural Perceptions	0.19	0.611	0.651

Source: Field Data (2023)

As the entire measurement model was satisfactory, this permitted the assessment of the structural model.

4.2.2.2 Assessment of the structural model

The assessment of the measurement model was followed by the assessment of the structural model, which included activities such as collinearity assessment, the examination of the coefficient of determination (R^2), f^2 Effect Size, predictive relevance (Q^2) and the assessment of statistical significance and relevance/size of the path coefficients. The subsequent sections present the findings of holdout sample validation (Importance Performance Map Analysis (IPMA), Multi-Group Analysis (MGA), mediation effects, and the overall model fit.

Collinearity Assessment

The Variance Inflation Factor (VIF) was used to check collinearity. As presented in Table 7 the collinearity was not a problem, in all relationships.

Table 7: Collinearity Statistics Inner VIF Values

Relationship	VIF
Economic Perceptions -> Absence of Motorcycle Ownership	1.344
Physiopsychological Perceptions -> Absence of Motorcycle Ownership	1.329
Social-cultural Perceptions -> Absence of Motorcycle Ownership	1.299

Source: Field Data (2023)

Coefficient of Determination (R²)

The R² for the endogenous variable absence of motorcycle ownership was 0.071. These values are presented in Table 8.

Table 8: R Square

	R-square	R-square adjusted
Absence of Motorcycle Ownership	0.078	0.071

Source: Field Data (2023)

Table 8 shows the R² for the outcome variable absence of motorcycle ownership which was 0.071 revealing that the contribution of community perceptions about the absence of motorcycle commercial taxis among females is very low.

f² Effect Size

The findings for **f² Effect Size** are presented in Table 9.

Table 9: f Square

Construct	Absence of Motorcycle Ownership
Economic Perceptions	0.012
Physio psychological Perceptions	0.036
Social-cultural Perceptions	0.000

Source: Field Data (2023)

Table 8 shows the f² Effect Size which revealed that even if the community perceptions variable were omitted from the model, there could be no significant changes on the R squared.

Predictive Relevance

Examining predictive relevance or the Q² is the assessment of the structural model's capability to predict. The results are presented in Table 10.

Table 10: The values of Q Square for model's constructs

Construct	Q ² predict
Absence of Motorcycle Ownership	0.053

Source: Field Data (2023)

The R² corresponds with the predictive relevance of the Q² findings, which revealed minimal impacts of the predictor variable on the outcome variable.

Statistical Significance and Relevance/Size of the Path Coefficients

This is an important stage in assessing the relationship between predictor variable (community perceptions) and outcome variable (absence of motorcycle ownership). Tables 11 and 12 present the results of this analysis.

Table 11: Size of path coefficients

Paths	Path Coefficients	P Values
Economic Perceptions -> Absence of Motorcycle Ownership	0.123	0.030
Physiopsychological Perceptions -> Absence of Motorcycle Ownership	0.211	0.001
Social-cultural Perceptions -> Absence of Motorcycle Ownership	-0.019	0.758

Source: Field Data (2023)

Regarding the size of the path coefficient, which shows the relative importance of the exogenous drivers' constructs (column 2) in predicting the dependent construct, it was found that Physio-psychological Perceptions (0.211) are the most important among all constructs. In contrast, economic perceptions influence the absence of female ownership of commercial motorcycle taxis marginally (0.123), while the social-cultural perceptions negatively affect the absence of commercial motorcycle ownership. These findings align with those by Ayinaddis (2023), who found that the latter factors significantly contributed to a female's entrepreneurial performance. The impact of economic factors on females' businesses was also studied in a number of studies (Khan et al., 2021; Maziku & Robert, 2014).

Figure 3: Statistical significance results

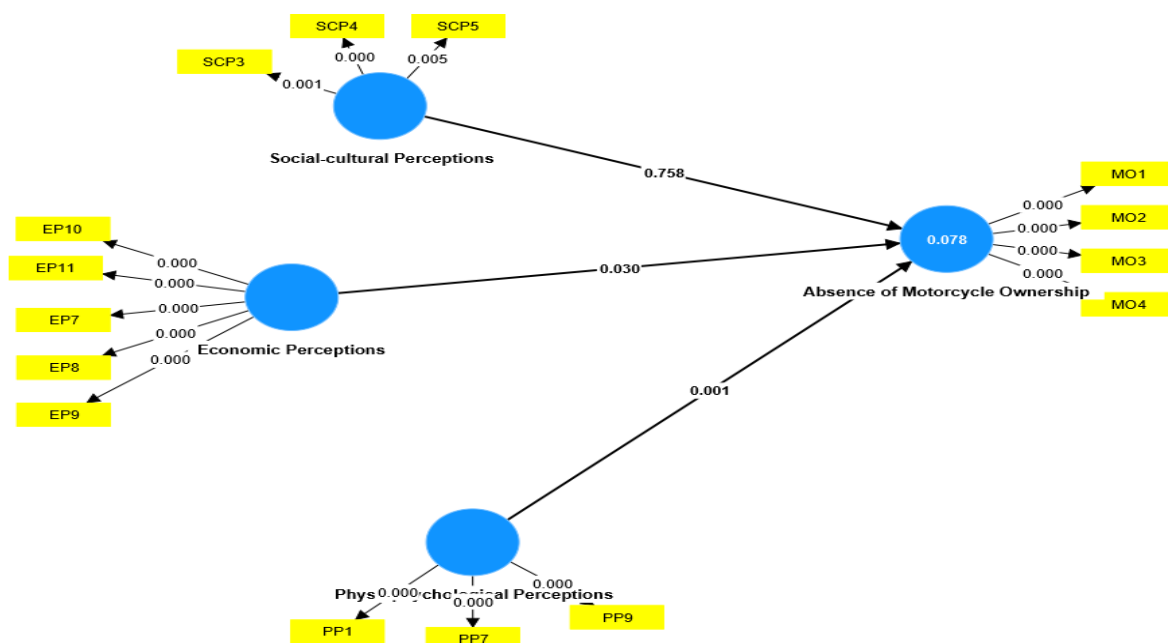


Table 12: Statistical significance

Hypothesis	Coefficients	P Values	Decision
Economic Perceptions -> Absence of Motorcycle Ownership	0.123	0.030	Supported
Physiopsychological Perceptions -> Absence of Motorcycle Ownership	0.211	0.001	Supported
Social-cultural Perceptions -> Absence of Motorcycle Ownership	-0.019	0.758	Unsupport ed

Source: Field Data (2023)

Assessing the statistical significance and relevance/size of the path coefficients is a critical stage in evaluating the relationship between the predictor variable (community perceptions) and the outcome variable (absence of motorcycle ownership). These results are presented in Table 12.

The first hypothesis in this study was that there is a significant relationship between economic perceptions and the absence of female ownership of commercial motorcycle taxis. The findings revealed significant relationships ($p < 0.05$) between economic perceptions and the absence of motorcycle ownership. These results support evidence from previous observations on the effects of economic perceptions such as lack of capital, credit worthiness, access to information, and business and social networking as hindering females' employment and assets ownership (Jenkins et al., 2020; Mashapure et al., 2022; Peters et al., 2018). The findings align with those by Ayinaddis (2023), that when demographic, social, economic, legal, and administrative factors are taken positively they are likely to influence a female's entrepreneurial performance. When such factors are negatively applied, they will negatively affect females' businesses as the current study found. However, these results differ from those obtained during the focus group discussions whereby females declared that economic factors are not the hindrance to own them as they have financial capability to own motorcycles. The reason given was the availability of motorcycle loans, which provided by banks to all females who are interested.

The second hypothesis in the study was that there is a significant relationship between socio-cultural perceptions and the absence of female ownership of commercial motorcycle taxis. The findings revealed insignificance relationships ($p > 0.05$) between socio-cultural perceptions and the absence of commercial motorcycle taxis ownership. These results imply that the perception does not deprive females of owning commercial motorcycle taxis. The primary reason for these results can be a massive national campaign to educate the community on females' roles, positions, and rights in the society. The results differ from those by Naysmith and Rubincam (2012), who found that negative perceptions such as females' dual roles at home and workplace, less capable of performing, and less desirable employees, affect their participation in

the transport sector workers. The outcome of this hypothesis is contrary to that of Das and Zumbyte (2017) who found that the culture that instils childcare responsibilities of so overwhelmingly into females limits them into employment. In addition, Maziku and Robert (2014) found that socio-cultural factors negatively affect female businesses. The qualitative results with different stakeholders revealed that cultural factors, traditions and belief have been a challenge when it comes to female ownership of assets. In fact, the situation is more dominant on land ownership. Again, in the transport sector society still sees the industry is for men only. Cultural beliefs and traditions are the reason why some societies claim that it is not moral for females to own assets.

The third hypothesis in the study was that there is a significant relationship between psychophysiological perceptions and the absence of female ownership of commercial motorcycle taxis. The findings reveal significant relationships ($p < 0.05$) between psychophysiological perceptions and the absence of motorcycle ownership. Previous studies supported the results, which found that negative perceptions such as those that females have unique needs, such as pregnancy, maternity leaves, and menstrual cycle phases, do affect their participation as workers in the transport sector (Mashapure et al., 2022; Naysmith & Rubincam, 2012; Uteng & Turner, 2019). These results are, however, different from those obtained during the interviews, where most females disagreed that physio-psychological factors may hinder them from participating in the commercial motorcycle taxis business. These results implied that the economic and physio-psychological perceptions have an effect in depriving females of owning commercial motorcycle taxis.

Importance Performance Matrix Analysis (IPMA)

This step involved examination of holdout sample validation by determining the importance and performance of the constructs and indicators of the research model. The values ranging of 0 represent the lowest and a value of 100 represent the highest performance (latent variables score) while the unstandardized total effects can take on values much greater than 1). The results for the constructs' indicators are presented in Appendix 7 and 8.

The Importance Performance Matrix Analysis for constructs shows that Physio-psychological Perceptions (Importance = .211, Performance = 44.9) are more essential and their performance is high to the research model. This implies that this is the area may receive close attention for enhancing females' ownership of commercial motorcycle taxis. Investing efforts in performance improvement of a construct that is important for the target construct is logical since it would have a big impact in changing (improving) the target construct (Hair et al., 2017).

The findings for the remaining constructs were Economic Perceptions (Importance =.123, Performance =48.7), and Social-cultural Perceptions (Importance =-0.019, Performance =44.4), have high performance and relative importance in the model.

On the Importance-Performance Map (IPMA) for standardized indicators, the findings reveal belief that females cannot own commercial motorcycle taxis because they do not believe success depends on their own doing (PP9) is the most important and have high performance. Other perceptions have the same orientation that females cannot own commercial motorcycle taxis because they have a low level of confidence (PP1), again they cannot own commercial motorcycle taxis because of low ambition (PP7).

Comparison of Participants' Opinions- Multi-Group Analysis (MGA)

This was done through Multi-Group Analysis (MGA), which allows testing if differences between group-specific path coefficients are statistically significant. The groups in this study were area of Residence/Business, Status/Activity, Gender, Marital Status, Age, category (Years), Education Level. Table 13 presents the obtained results.

Table 13: PLS-MGA between different groups of participants

Paths/Characteristics	Occupatio n	Gende r	Marita l	Age	Educatio n
Economic Perceptions -> Absence of Motorcycle Ownership	0.125	0.057	0.152	0.035	0.369
Physiopsychological Perceptions -> Absence of Motorcycle Ownership	0.137	0.040	0.480	0.143	0.599
Social-cultural Perceptions -> Absence of Motorcycle Ownership	0.216	0.432	0.178	0.320	0.740

Source: Field Data (2023)

Multigroup Analysis (MGA) revealed varying differences in the relationship between community perceptions and the absence of motorcycle ownership. On the relationship between economic perceptions and absence of motorcycle ownership, the MGA revealed an insignificant difference between the occupation, gender, marital status, and education of the respondents. There were only significant differences based on age on the relationship between economic perceptions and the absence of motorcycle

commercial taxis ownership ($P < 0.05$). On the relationship between physio-psychological perceptions and the absence of motorcycle commercial taxis ownership, the analysis revealed an insignificant difference between occupation, marital status, age and education. There were only significant differences based on gender on the relationship between physio psychological perceptions and absence of motorcycle ownership ($P < 0.05$). On the relationship between social-cultural perceptions and absence of motorcycle ownership, the multi group analysis revealed an insignificant difference between occupation, gender, marital, age and education of the participants ($P > 0.05$). The results implied that there are no variations on social-cultural perceptions about different groups of respondents in absence of motorcycle commercial taxis ownership.

4.2.3 Qualitative results on the effects of perceptions on the absence of female ownership of commercial motorcycle taxis

Findings from the interviews revealed that more than two-thirds of females who own motorcycle taxis disagreed that physio-psychological factors hinder many females in participating in the motorcycle business particularly in the ownership. Findings disclosed that there is no relationship between female physio-psychological factors and ownership of motorcycles. One of the interviewees explained that:

Anyone can own a motorcycle, a female or a male; they are all equal. This is because ownership is different from operating a business. You can own and assign other people to operate your asset. I think there are other reasons, not biological factors.

Again, qualitative data from interviews and focus group discussions indicated that economic factors do not hinder females on ownership of motorcycles. In most cases over two thirds of participants who were interviewed pointed out that females have financial ability to own a motorcycle, the problem is on the operation of the business.

During an interview with "Chama cha Wamiliki na Madereva wa Pikipiki Dar es Salaam" (CMPD), it was revealed that there are opportunities for all females and males to own commercial motorcycle taxis through loans provided by NMB. Surprisingly, 90% of those who are grabbing the opportunities are males. The chairperson of CMPD narrated:

In our "masta boda" project of NMB, which is a non-loan project for bajaji, motorbikes and cars, it is managed by CMPD in cooperation with NMB, most of our beneficiaries are males, but we also have females who borrowed bajaji, and their projects are going well. There is no problem because we see returns without any inconvenience.

Moreover, findings revealed that 36 (90%) out of 40 females owning a motorcycle said that traditions and beliefs are the most hindering factors to female participation in the motorcycle business. It was further revealed that in African society, and Tanzania in particular, commercial motorcycle taxis are for male and not females due to their nature. This is from the family ancestors where females were not allowed to ride motorcycles, which affects them psychologically even in owning motorcycles for commercial purposes.

Furthermore, findings from stakeholders like Tanzania Gender Network Programme (TGNP) revealed that traditions and belief affect African females so much in any business associated with asset ownership and financial stability. Females were much more involved in the caregiving activities than productive activities and asset ownership. During the interview, one TGNP's officer said:

The truth is that society has categorized sectors for females and others for males over years and years. Females are for occupations like decorating parties, sewing, salons, and food businesses. But engineering, large-scale agriculture, and transport, to mention a few claimed to be for men. The entire transport sector is dominated by males, from drivers to the owners; there are females who try but are very few. This is due to the culture and traditional environment we grew up in that has contributed a lot to females not participating in this business. For instance, communities have been preparing females from childhood for housework and non-economic activities while males are prepared for professionals and other economic activities.

Findings from the interview with LATRA supported that:

All businesses which are males dominated have foundations in ancient times. The attitudes were developed years and years back, so generations after generations are adopting the concepts and implementing them. Well, is high time to do something.

4.2.4 Measures for promoting female ownership of commercial motorcycle taxis

The second question sought to determine strategies that can be used to promote female ownership of commercial motorcycles and taxis. The data were obtained through semi-structured interviews and FGDs. Table 14 summarizes the study findings.

Table 14: Summary of the study's qualitative findings

Strategy	TGNP	TRA	LATRA	SHIRIKISHO	CMPD	Total N=26(%)
Awareness	3	2	7	6	6	24(92%)
Education	3	2	6	6	6	23(88%)
Formalization	3	-	-	6	6	15(54%)

Source: Field Data (2023)

Findings reveal that raising awareness, providing education, and formalizing commercial motorcycle taxis are some of the strategies suitable in promoting female ownership of motorcycles and full participation in the business.

Raising awareness to the community

Information in Table 14 indicates that raising awareness of the community is among the leading measures proposed to promote female ownership of motorcycle taxis. All the participants interviewed (92%) said that awareness should be provided to the community to promote female ownership of assets, and motorcycles in particular. Findings reveal that awareness on the inclusion of females in all male dominating jobs/fields, particularly transport, is very important, and it enhances the confidence of females to participate and grab the opportunities without considering their gender. It further reveals that TGNP, SHIRIKISHO, AND CMPD are doing several activities such as seminars to raise awareness:

We noted the gap in the transport sector, so we suggested gender seminars to encourage them through various topics/opportunities that we have here at TGNP, especially male dominated sectors like transport. So, it works, and young females are now involved in commercial motorcycles business to fight poverty.

Similarly, another respondent from SHIRIKISHO pointed out:

We have been organizing meetings regularly with all the commercial motorcycle drivers and owners regarding the issue of protection and security in wards. In these meetings we also raise awareness to all genders that motorcycle business is not as people think, it is a business as any other businesses. People of all genders can participate and generate income to support life. We want the society to know that the commercial motorcycle business is a respected business with a lot of opportunities.

The implication of the above quotation is that all stakeholders are making efforts to raise awareness of the available opportunity in the commercial motorcycle taxis. However, something more must be done because the effort is not enough. The government in collaboration with other actors need to come up with mechanisms to

enhance public awareness and, hence, promote female participation in ownership of the commercial motorcycle taxis.

Based on above interviews, the findings from LATRA, and Shirikisho reveal that the organisation are making huge efforts to make the community aware on the importance of females' participation in the commercial motorcycle taxis business to grab the available opportunity hand in hand with males. However, the mechanism for raising awareness is not enough because the number of females is very low so the Government in collaboration with NGOs need to make more efforts in raising awareness to the large community with regards to females' participation and asset ownership of commercial motorcycle taxis. Findings from TGNP indicate that, if females contribute much on the development and the advancement of the community and country at large, the government needs to see how it could support females' participation in the enterprises and asset ownership of commercial motorcycles in monetary terms.

The findings are in line with Howe and Davis (2003) who contend that community awareness is very important as it helps to grab untapped opportunities available on motorcycle taxis operation. In addition, the findings concur with findings in a study by Peters et al. (2018) and Jenkins et al. (2020), which call efforts to streamline effective credit schemes as a support for female ownership of commercial motorcycles.

Furthermore, the increase in funding for females could allow them to acquire additional motorcycles that will facilitate and improve the quality of their lives. On top of that, civil societies, parastatal organizations and communities at large need to be encouraged to contribute to the empowerment of females in asset ownership particularly on motorcycle business as they contribute to other social activities like weddings.

Provision of education

Another proposed measure for promoting female ownership of commercial motorcycle taxis was the provision of education, whereby 88 per cent (Table 14) revealed that there is a need to provide education to different stockholders on the issues regarding inclusive asset ownership in the male-dominated field/works to close the existing gap. Furthermore, education is needed in our curricula, from lower level to higher education, on equal participation in all fields/works, particularly in asset ownership.

The Government needs to find a mechanism to educate society at all levels of education that females have rights to the ownership of assets and full participation in male dominated sectors like transport. Again, we need formal and informal education to prepare young females to be ready to

participate in fields that are perceived to be male oriented. Parents and teachers must collaborate to achieve the goals (TGNP).

A participant from LATRA added that:

I think the most effective solution is to provide education. On our side we are struggling a lot to provide education through different activities and platforms to attract females into business, especially in commercial motorcycle taxis. For instance, we were launching SACCOS for commercial motorcycle taxis in Moshi females were only two out of more than thousand owners and operators of motorcycles.

Another respondent added that:

We also use media like Clouds and TBC media every Tuesday at three o'clock at night to educate the community. I know institutions like the police force, TRA, NIT, and insurance companies are also providing education to the public to educate the community. However, this is not enough. The government needs to collaborate with non-government organizations to widen the scope.

On the other hand, data from FGDs with 'SHIRIKISHO' revealed that the Government has to instil a mechanism to ensure commercial motorcycle operators get training before, because a motorcycle is a transport asset like any other assets such as car, aircrafts to mention a few. The Institute like NIT needs to provide training to operators, even if it is for three (3) days. For instance, neighbouring Rwanda is enforcing that no one is supposed to operate commercial motorcycle taxis without formal training from recognized institutions/authorities. As a results, many people are attracted, particularly females, to participate in the business as emphasized.

It's the responsibility of the government to put in place a mechanism that will enforce education/training for drivers before full operation. I am sure fees would not be a big problem for drivers if the government intervened. We really need to cooperate with the Government to make sure we formalize commercial motorcycles to be formal with proper arrangements to attach females into the business (SHIRIKISHO).

Based on above interviews, the study shows that there is a need for the Government and other transport sectors stakeholders to promote education to the community. Community needs to be educated on the importance of equal participation in every sector. There is no sector for females and other sectors for males. Even males dominated sectors like transport can be conducted and operated by females. The big issue here is the mindset. Findings from TGNP and TRA reveal that these organizations

are providing education to society, but it is not enough as the problem has strong roots from generation to generation. The findings imply that there is a need for collective efforts to educate the society to eradicate the problem.

In fact, gender equality has to be integrated in the education curriculum from the lower level to higher level as a tool to change the mind-set in the generation to come. Informal and formal education is needed for the young generation to elders to ensure all negative perceptions and attitudes towards females are eliminated in the society. The findings are in line with Organization for Economic Co-operation and Development (OECD) (2018), which explains a need for content dedicated toward empowering females on the rights and ability for entrepreneurship in growing informal sectors through training. Those training must focus on business and financial planning, identifying markets and customers, financial management, managing human resources and more. The study added that education and training is the most powerful tool for empowering females and eradicating all negative perceptions about female asset ownership and entrepreneurship in general.

The findings are also in line with Maulaga (2019) who found that only through education and training society's minds-set would positively change to provide full support to females when it comes to asset ownership for commercial motorcycles.

Informal sector formalization

Furthermore, 54 per cent of the participants (see Table 14) indicated that there is a need to formalize informal sectors, such as motorcycles taxis business. In this regard, participants from TGNP and 'SHIRIKISHO' raised their concerns and emphasized the need for the government to formalize commercial motorcycles in the country:

There is a need to improve informal sectors, such as commercial motorcycles taxis, as it has transformed the income of thousands of youths in Tanzania. In addition, at the macro levels the government has to seek various initiatives to reinforce the policies in the formalization process to ensure females are participating in the informal sector, especially those male-dominated sectors like the transport sector (TGNP).

Findings from SHIRIKISHO confirmed that:

Talking about the system to formalize commercial motorcycles is really needed in our country. For instance, three months ago we visited Rwanda to learn how commercial motorcycle taxis work. It was unbelievable that in Rwanda the business is real, working properly, operators obey the law very well, they are in a good system, everything is well arranged and organized. Before they were like us, but they decided to formalize and went

to the USA to learn. So even to us it is very possible. However, to succeed in this we really need Government intervention.

The implication from these statements is that formalizing commercial motorcycles would pave the way for the effective participation of females into the business and asset ownership. With formalization the community may change their perception that the business is dirty. In addition, formalization may attract females despite the traditions and beliefs that the business is for males only. Overall, the third research question sought to establish measures that can be used to promote female ownership of motorcycle taxis. The proposed measures include raising the awareness, providing education, and formalizing the business. It is believed that implementing all proposed strategies would positively impact the community as they will change their mind-set towards female participation and ownership of commercial motorcycles taxis for them to benefit with available opportunities in the business.

Based on above interviews, the findings from all the participants reveal that there is a need for the government together with NGOs to engage in round table discussions on formalization of informal business particularly commercial motorcycles to enhance a friendly environment to females and any other person who need to participate in the business. The formalization of the informal sector such as commercial motorcycles should also attract a number of females with a positive mindset for the commercial motorcycle business. In this regard, the commercial motorcycle business is not only for males. The Tanzania Government together with NGOs in this regard, should set criteria for ratification with proper and friendly mechanism and procedure to attract females into the business. The findings concur with the study by Nikore et al. (2022) conducted in India, that emphasizes females need for proper and flexibility in work arrangement to operate properly and effectively. In the same line of argument, the study by Jenkins et al. (2020) contends that females' participation in commercial motorcycles requires a formalized environment with proper procedures for comfortability and effective utilization of the available opportunity in the informal sector such as commercial motorcycles taxis.

Thus, the measures for promoting females' ownership of commercial motorcycle taxis include raising awareness, provision of education, and formalization of the informal sector such as commercial motorcycle taxis. This discussion indicates that three components of the conceptual framework such as community economic, socio-cultural and psychophysiological perceptions, which affect participation of females in the ownership of commercial motorcycles were rightly adopted to direct this study by identifying its relationships. All three factors are the main reasons why females do not participate in the ownership of commercial motorcycles.

CHAPTER FIVE

SUMMARY, CONTRIBUTION OF THE STUDY AND AREAS FOR FURTHER STUDIES

5.1 Summary

The study explored the community perceptions regarding commercial motorcycle taxis ownership among females in Tanzania. The results reveal that most participants had an average of neutral to disagreement on economic, physio-psychological, and social-cultural perceptions. Furthermore, the results reveal that there exists a significant relationship between economic and physio-psychological perceptions in the absence of females' ownership of commercial motorcycle taxis. Contrary to the expectations, the study reveals an insignificant relationship between socio-cultural perceptions and the absence of commercial motorcycle taxis ownership. Regarding the size of the path coefficient, it was found that physio-psychological perceptions contribute highly to absence of females' ownership of commercial motorcycle taxis, followed by economic perceptions, while social-cultural perceptions negatively affect the absence of commercial motorcycles ownership. These results align with the Importance Performance Matrix Analysis (IPMA), which showed that the physio-psychological perceptions are more important, and its performance is higher in the model predicting absence of commercial motorcycles ownership among females.

5.2 Recommendations

Given the findings from this study especially on the contribution of physio-psychological perceptions about the absence of females on the ownership of commercial motorcycle taxis, the study recommends the following. Firstly, the government should improve education and counselling for females to change their negative perceptions regarding the motorcycle business, because it is like any other business. Secondly, NGOs should improve education and campaigns to females in owning and running transport businesses as it is a growing sector with many opportunities. So, they have to direct more efforts to encourage them. Thirdly, the government and respective authorities should formulate laws and regulations that protect females' rights in hiring/riding and operating motorcycle taxis, to increase their confidence in participating in the business.

5.3 Contribution of the Study and Areas for Further Studies

Several contributions from study are worth noting. First, this study has brought into light the impact of economic, physio-psychological, and social-cultural perceptions. There have been few studies focused on these factors in the past. Second, this study introduced the concept of "physio-psychological" which was not common in females' empowerment literature. Many previous studies concentrated on social-cultural

perceptions in contrast to the perceptions considered in this study. Hence, this study contributes to the literature by studying community perceptions broadly. Third, the study attempted to explain the relationship between perceptions and their effects on females' ownership of commercial motorcycle taxis. Hence, it adds knowledge in the area by using Partial Least-Structural Equation Modeling (PLS-SEM). Furthermore, the study contributes to the limited knowledge of female ownership of commercial motorcycle taxis in Tanzania. Many studies considered females as passengers and a few as operators. This offers an opportunity for enhancing their wellbeing and addressing the inequality against their male counterparts. Methodologically, this study employed PLS-SEM and analysed data using one among the emerging popular Software among researchers, particularly SMARTPLS 4.

Though this study successfully attained the intended objectives, it suffered from several limitations worth mentioning. The study adopted a cross-sectional time horizon, which limited the availability of the study of economic, physio-psychological, and social-cultural perceptions for years. As the current study was cross-sectional, future studies can be undertaken on a longitudinal basis to capture the economic, physio-psychological, and social-cultural perceptions over time. The study was done in one district in Dar es Salaam only, which posed a danger of failure to generalize the results across the country because people of different geographical locations have different economic, physio-psychological, and social-cultural perceptions. Future studies can expand the number of districts and regions for better generalizability of the results. As the study found that social-cultural factors do not impact absence of female ownership of motorcycle commercial taxis, future studies can explore the reasons behind this paradigm shift and why economic and physio-psychological perceptions influence female ownership in this industry. This will support the development of a gender-informed policies and research agenda on enterprise development that can guide practitioners, development partners, and researchers who seek to advance females economic empowerment in the Transport sector in Tanzania.

REFERENCES

- Abdullah, A., Ababio-Donkor, A., & Adams, C. A. (2022). Gender Disparities in the Access and Use of Urban Public Transport in Abuja, Nigeria. *Sustainability (Switzerland)*, 14(9). <https://doi.org/10.3390/su14095219>
- Ahmad, S. H. S., Subramaniam, G., & Nasir, S. (2020). Women in Management at the Port Sector of Maritime Industry in Malaysia - is there a Gender Imbalance? *Academy of Strategic Management Journal*.
- Alhawsawi, S., & Jawhar, S. S. (2023). Education, employment, and empowerment among Saudi women. *Gender and Education*. <https://doi.org/10.1080/09540253.2023.2189917>
- Ahrholdt, D.C., Gudergan, S.P., & Ringle C.M. (2017). Enhancing service loyalty: The roles of delight, satisfaction, and service quality. *Journal of Travel Research*, 56(4), 436– 450. DOI: 10.1177/0047287516649058.
- Anggadwita, G., & Dhewanto, W. (2016). The influence of personal attitude and social perception on women entrepreneurial intentions in micro and small enterprises in Indonesia. *International Journal of Entrepreneurship and Small Business*. <https://doi.org/10.1504/IJESB.2016.073974>
- Ayinaddis, S. G. (2023). Socio-economic factors affecting women's entrepreneurial performance in MSEs in Bahir Dar City, Ethiopia. *Journal of Innovation and Entrepreneurship*, 12(1). <https://doi.org/10.1186/s13731-023-00289-w>
- Bishop, T., Barber, C., Charman, S., Porter, G., & Bradbury, A. (2018). Enhancing understanding on safe motorcycle and three-wheeler use for rural transport. *Inception Report. ReCAP project RAF2114A. Search in*.
- Boichuk, R., Iermakov, S., Vintoniak, O., Hrabchuk, A., & Bieliavskyi, I. (2021). Original Article Influence of psychophysiological factors on the effectiveness of competitive activity of volleyball players (girls) aged 16 to 18. *Journal of Physical Education and Sport ®*, 20(4), 2392–2399. <https://doi.org/10.7752/jpes.2020.s4326>
- Bukhari, S. A. R. (2020). "Bukhari Sample Size Calculator". Research Gate GmbH. DOI: 10.13140/RG.2.2.27730.58563
- Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? In *Currents in Pharmacy Teaching and Learning*. <https://doi.org/10.1016/j.cptl.2018.03.019>
- Clarke, V., & Braun, V. (2017). Thematic analysis. *Journal of Positive Psychology*, 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>
- Creswell, J. H. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). SAGE Publications Ltd.
- Das, M. B., & Zumbyte, I. (2017). The Motherhood Penalty and Female Employment in Urban India. In *The Motherhood Penalty and Female Employment in Urban India*. <https://doi.org/10.1596/1813-9450-8004>
- Eagly, A. H., & Wood, W. (2012). Social role theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 458–476). Sage Publications Ltd. <https://doi.org/10.4135/9781446249222.n49>

- ESCAP, U. N. (2022). *Mind the gender gap in workforce, including transport and logistics: the perspective from Sri Lanka and beyond*.
- Essau, G., & Ngonzi, T. (2022). Stakeholders' Perceptions about the Performance of Motorcycle Riding Business in Nyamagana District. *International journal of Engineering, Business and Management*, 6(2).
- Furman, A., Lenska, S., Gaiduk, N., Perova, S., Monastyrskaya, J., & Smal, O. (2020). *Psychophysiological Factors of Successful Mastering of a Foreign Language by Students*. 9(03), 4389–4394.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management and Data Systems*, 117(3), 442–458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Hair, J.F., Risher, J.J., Sarstedt, M., & Ringle, C.M. (2018). When to use and how to report the results of PLS-SEM. *European Business Review*.
- Hayati, A., Maryati, S., Pradono, P., & Purboyo, H. (2020). Sustainable transportation: The perspective of women community (a literature review). *IOP Conference Series: Earth and Environmental Science*, 592(1), 1–11. <https://doi.org/10.1088/1755-1315/592/1/012034>
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. Rockhampton, Australia: Chapman & Hall/CRC, Taylor & Francis Group.
- Hortelano, A. O., Grosso, M., Haq, G., & Tsakalidis, A. (2021). Women in transport research and innovation: A european perspective. *Sustainability (Switzerland)*, 13(12). <https://doi.org/10.3390/su13126796>
- Howe, J., & Davis, A. (2020). Bodaboda– Uganda's rural and urban low-capacity transport services. *Urban Mobility for All*. Lisse: AA Balkema Publishers, pp 235–240.
- Jenkins, J., Mokuwa, E. Y., Peters, K., & Richards, P. (2020). Changing women's lives and livelihoods: Motorcycle taxis in rural Liberia and Sierra Leone. *Proceedings of the Institution of Civil Engineers: Transport*, 173(2), 132–143. <https://doi.org/10.1680/jtran.18.00162>
- Khan, R. U., Salamzadeh, Y., Shah, S. Z. A., & Hussain, M. (2021). Factors affecting women entrepreneurs' success: a study of small- and medium-sized enterprises in emerging market of Pakistan. *Journal of Innovation and Entrepreneurship*, 10(1). <https://doi.org/10.1186/s13731-021-00145-9>
- Konings, P. (2006). Solving transportation problems in African cities: innovative responses by the youth in Douala, Cameroon. *Africa today*, 35–50.
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120–124. <https://doi.org/10.1080/13814788.2017.1375092>
- Lavrakas, P. (2008). *Encyclopedia of Survey Research Methods*. Sage Publications.

- Luvinga, K. C., & Kilasara, S. A. (2020). The financial implications of Bodaboda transport business among youths in Arusha-cost benefit analysis. *Advances in Social Sciences Research Journal*, 7(4), 177-185
- Machio, P. M., Kimani, D. N., Kariuki, P. C., Ng'ang'a, A. M., & Njoroge, M. M. (2022). Social Capital and Women's Empowerment. *Forum for Social Economics*. <https://doi.org/10.1080/07360932.2022.2115526>
- Magambo, E. F., & Nyamwesa, A. M. (2022). Gender Gap in Asset Ownership: Tanzania State of Play. *African Journal of Applied Research*, 8(1), 351-361.
- Mashapure, R., Nyagadza, B., Chikazhe, L., Msipa, N., Ngorora, G. K. P., & Gwiza, A. (2022). Challenges hindering women entrepreneurship sustainability in rural livelihoods: Case of Manicaland province. *Cogent Social Sciences*, 8(1), 1-23. <https://doi.org/10.1080/23311886.2022.2132675>
- Maziku, A., & Robert, G. (2014). *The Effects of Socio-Cultural Factors on the Performance of Women Small and Medium Enterprises in Tanzania*. 5(21), 51-63.
- Maulaga, C., Machimu, G. M., & Mgema, J. M. (2019). Youth Perception on Motorcycle Taxi Business Investment and its Effect on their Economic Wellbeing: Experience from Moshi Municipality.
- Mihaela, P. L. (2015). *Psychological factors of academic success*. 180(November 2014), 1632-1637. <https://doi.org/10.1016/j.sbspro.2015.02.318>
- Naysmith, S., & Rubincam, C. (2012). Women in the driver's seat: An exploratory study of perceptions and experiences of female truck drivers and their employers in South Africa. *Journal of Southern African Studies*, 38(3), 579-599. <https://doi.org/10.1080/03057070.2012.708997>
- Nikore, M., Prabhu, P., Gupta, M., Narang, V., & Bhatnagar, K. (2022). India ' s missing working women : Tracing the journey of women ' s economic contribution over the last seven decades , and during COVID-19. *Journal of International Women's Studies*, 36-71.
- Nyachieo, G. M. M. (2013). Creating employment through transport; The youth and motorcycle (Boda Boda) in Kitengela, Kajiado County-Kenya. *Research Journal in Organizational Psychology & Educational Studies*.
- Nyachieo, G. M. M. (2015). Socio-cultural and economic determinants of Boda-boda motorcycle transport safety in Kisumu county, Kenya. *Hilos Tensados*, 1(June), 1-265.
- Nzama, N., & O. Ezeudji, I. (2020). Gender nuances in tourism-related entrepreneurship in Kwazulu-Natal, South Africa. *African Journal of Gender, Society and Development (Formerly Journal of Gender, Information and Development in Africa)*, 9(4), 109-137. <https://doi.org/10.31920/2634-3622/2020/v9n4a5>
- Organisation for Economic Co-operation and Development (OECD). (2018). *Equity in Education: Breaking Down Barriers to Social Mobility*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/9789264073234-en>.
- Panta, S. K., & Thapa, B. (2018). Entrepreneurship and women's empowerment in gateway communities of Bardia National Park, Nepal. *Journal of Ecotourism*. <https://doi.org/10.1080/14724049.2017.1299743>
- Peters, K., Mokuwa, E., & Richards, P. (2018). Gender Mainstreaming in the Motorcycle Taxi Sector in Rural Sierra Leone and Liberia. In *Research for Community*
- Pierik, B. (2022). Where was women's work? Gender, work and urban space in Amsterdam, 1650-1791. *Women's History Review*, 1-22. <https://doi.org/10.1080/09612025.2022.2123439>

- Porter, G., & Omwega, N. (2022). *Experiences of Women Workers in the African Road Transport Sector*. <https://doi.org/10.1108/s2044-994120220000016005>
- Robert, H. (2006). Handbook of Univariate and Multivariate Data Analysis and Interpretation with SPSS. In *Taylor & Francis Group*. Taylor & Francis Group, LLC. <https://doi.org/10.1198/000313008X332287>
- Saunders, M., Lewis, P., & Thornhill, A. (2012). Research Methods for Business Students. In *Pearson* (7th ed.). Pearson Education Limited.
- Solesvik, M., Iakovleva, T., & Trifilova, A. (2019). Motivation of female entrepreneurs: a cross-national study. *Journal of Small Business and Enterprise Development*, 26(5), 684–705. <https://doi.org/10.1108/JSBED-10-2018-0306>
- Teddlie, C., & Tashakkori, A. (2010). *Foundations of Mixed Methods Research*. SAGE Publications Ltd.
- Urioh, N. (2020). Contribution of Bodaboda Business on Improving the Standard of Living among Youth in Tanzania: A Case of Ubungo District in Dar es Salaam (Doctoral dissertation, Mzumbe University)
- Tanzania Revenue Authority (TRA). (2022). Registered Motorcycles and Motor-tricycles in Tanzania.
- United Republic of Tanzania (URT). (1977). Constitution of the United Republic of Tanzania (1977).
- United Republic of Tanzania (URT). (2022). Land Transport Statistics, Quarter 3-2021/2022. Ministry of Work and Transport Land Transport Regulatory Authority (LATRA).
- United Nations. (2018). *Measuring Entrepreneurship from a Gender Perspective: Lessons Learned from the EDGE Project*.
- United Nations. (2019). *Producing Statistics on Asset Ownership from a Gender Perspective Guidelines for Producing Statistics on Asset Ownership from a Gender Perspective*.
- United Nations Development Programme (UNDP). (2024). *Human development report 2023-24: breaking the gridlock: reimagining cooperation in a polarized world*. New York.
- Uteng, T. P., & Turner, J. (2019). Addressing the linkages between gender and transport in low- and middle-income countries. *Sustainability (Switzerland)*, 11(17). <https://doi.org/10.3390/su11174555>
- Wikman, A., Muhoza, C., & Chavez, R. D. (2021). *Mainstreaming gender in urban public transport*. May.
- Zhu, L., Kara, O., & Zhu, X. (2019). A comparative study of women entrepreneurship in transitional economies: The case of China and Vietnam. *Journal of Entrepreneurship in Emerging Economies*, 11(1), 66–80. <https://doi.org/10.1108/JEEE-04-2017-0027>
- Zimmerman, M. (2000). Handbook of Community Psychology. *Handbook of Community Psychology*, October 2012. <https://doi.org/10.1007/978-1-4615-4193-6>

APPENDICES

APPENDIX ONE: QUESTIONNAIRE (KISWAHILI)

A. UTANGULIZI

Sisi, wafanyakazi wa Chuo cha Taifa cha Usafirishaji (NIT) tunakusanya taarifa kama sehemu ya utafiti wetu unaohusu "Mtazamo kuhusiana na wanawake kumiliki biashara ya pikipiki na bajaji nchini Tanzania", utafiti huu umefadhiliwa na taasisi ya REPOA ambayo hufanya tafiti zenye lengo la kuondoa umaskini "Research on Poverty Alleviation". Kwahiyo lengo la utafiti huu ni kubaini ni kwa kiwango gani mtazamo huu una athari kwa wanawake hususani katika umiliki wa biashara ya pikipiki na bajaji. Kwahiyo, tunakuomba ushiriki katika utafiti huu, kama utakubali kushiriki taarifa utakazo toa zitakuwa ni siri na hautatakiwa kutaja jina lako; pia taarifa zitatumika kwa malengo yaliyokusudiwa tu na si vinginevyo. Ukiwa na maswali kuhusiana na utafiti huu, unaruhusiwa kuuliza sasa na hata baadaye unaweza kuwasiliana nasi; hivyo basi ili kufanikisha lengo hili tunaomba ushirikiano wako katika kujaza dodoso hili.

B. TAARIFA BINAFSI

1. Jaza jina la Wilaya unayoishi

2. Hali yako

a. Mmiliki ☐ b. Dereva ☐ c. Biashara nyingine ☐

3. Kama wewe si mmiliki, anayemiliki ni:

a. Mwanaume ☐ b. Mwanamke ☐ c. Familia ☐

4. Jinsia yako ni ipi? a. Mwanaume ☐ b. Mwanamke ☐

5. Kundi la umri wako ni lipi?

a. Chini ya 20

b. 20-30

c. 31-40

d. 41-50 ☐

e. 51-60

f. Zaidi ya 60

6. Elimu yako

a. Elimu ya Msingi

b. Elimu ya Sekondari ☐

c. Elimu ya Ufundi

d. Elimu ya Chuo Kikuu

e. Sina Elimu Yoyote

C. MASWALI

Jedwali linalofuata linaainisha mtazamo tofauti tofauti kuhusiana na umiliki wa wanawake katika biashara ya pikipiki na bajaji. Kwa kadri ya kiwango utakachokubaliana na mtazamo husika, tunakuomba ainisha kiwango hicho kwa kuweka alama ya vema mahali sahihi (✓) au kuandika namba husika kwa kadri unavyoelewa au kuamini, maana ya namba hizi ni kama ifuatavyo: 1-Sikubali sana, 2-Sikubali, 3-Sikubali wala Sikatai, 4-Nakubali, 5-Nakubali sana.

	MTAZAMO	KIWANGO				
	Mitazamo wa Kiuchumi	1	2	3	4	5
1.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kukosa mtaji unaotosheleza kufanya biashara hiyo					
2.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kukosa mafunzo yanayojitosheleza kuhusiana na umiliki wa rasilimali					
3.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kukosa sifa za kukopesheka					
4.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kukosa taarifa muhimu kuhusiana na biashara					
5.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kutokuwa na mtandao mpana wa kibiashara					
6.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kwasababu hali hiyo inaweza kumfanya amtawale mumewe					
7.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kutokuwa na utayari wa kukubaliana na mawazo mapya					
8.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kutopenda kufanya jambo lililo kinyume na mawazo ya wengine					
9.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kwasababu hawawezi kufanya maamuzi hususani yale yanayoonekana kuwa ya kibunifu					
10.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kuogopa changamoto zinazo hitaji ubunifu					
11.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kutokuweza kufanya kazi yoyote inayoonekana kuwa gumu					
	Mitazamo wa Kitamaduni na Kijamii	1	2	3	4	5

1.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na vizuizi mbali mbali vinavyotokana na tamaduni					
2.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na majukumu yao kujikita zaidi katika malezi ya watoto, kumhudumia mume na uangalizi wa nyumba					
3.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na ukweli kuwa biashara hii imetawaliwa zaidi na wanaume, hali ambayo inaweza kuwaingiza katika mahusiano ya kimapenzi					
4.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na ugumu wa kuweza kuyafanya mambo yote mawili kwa ufanisi, yaani majukumu ya nyumbani na menejimenti ya biashara.					
5.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na uwezo wao mdogo katika utendaji na usimamizi wa biashara					
6.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana kutokuweza kufanya jambo wasilokuwa na uhakika nalo					
7.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kukosa bidii					
8.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kwani hii ni biashara ya wanaume					
9.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na biashara hii kudharaulika katika jamii					
	Mtazamo wa Kisaikolojia na Kifiziolojia	1	2	3	4	5
1.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kukosa ujasiri					
2.	Mzunguko wa hedhi unaweza kuathiri utendaji wa mwanamke katika kumiliki na kusimamia biashara ya pikipiki na bajaji					
3.	Ukiachilia mbali suala la ujauzito kwa wanawake, pia changamoto zinazotokana na hali hii zinaweza kuathiri uwezo wa mwanamke katika menejimenti ya biashara ya pikipiki na bajaji					
4.	Baadhi ya changamoto zinazojitokeza wakati wa ujauzito wa mwanamke kama vile maumivu ya mgongo					

	zinaweza kupunguza uwezo wake katika umiliki na usimamizi wa biashara ya pikipiki na bajaji					
5.	Changamoto baada ya mwanamke kujifungua, zinaweza kumkatisha tamaa ya kumiliki na kuendesha biashara ya pikipiki na bajaji					
6.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na kutokupenda kufikia mafanikio yanayo watambulisha au kuwaheshimisha					
7.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na wao kuwa na malengo ya kawaida					
8.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara kutokana na wao kuwa na nafasi ndogo katika maamuzi yanayogusa maisha yao ya baadaye					
9.	Wanawake hawawezi kumiliki pikipiki na bajaji za biashara, kwani hawaamini kama mafanikio yanaweza kutokana na juhudi zao binafsi					
	Umiliki wa Pikipiki na Bajaji	1	2	3	4	5
1.	Wanawake wengi hawamiliki pikipiki na bajaji za biashara					
2.	Wanawake wengi hawana kadi ya umiliki wa pikipiki na bajaji za biashara					
3.	Wanawake wengi hawako tayari kuwekeza fedha zao katika biashara ya pikipiki na bajaji					
4.	Wanawake wengi hawako tayari kuchukua mkopo kwa lengo la kuwekeza katika biashara ya pikipiki na bajaji					

APPENDIX TWO: QUESTIONNAIRE (ENGLISH)

A. INTRODUCTION

We, staff from the National Institute of Transport (NIT) we are collecting data as part of the study titled "Perceptions about Female Ownership of Motorcycle and Tricycle Commercial Taxes in Tanzania" which is financed by Research on Poverty Alleviation (REPOA). This study will ascertain the extent to which the perceptions affect female ownership of motorcycle and tricycle commercial taxi. Therefore, we would like to request your participation in this study, if you chose to participate in the research, anonymity and your confidentiality will be maintained. The data provided will also be used for the intended purpose only. If you have any questions regarding this research study, you can contact us; to achieve the objectives of this study, we kindly require your collaboration in filling out this questionnaire.

B. DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

1. State the name of the district you are from

2. What is your status?

a. Owner ☐ b. Driver ☐ c. Other Business ☐

3. If you're not the owner, who own the motorcycle taxi?

a. Men ☐ b. female ☐ c. Family ☐
4. What is your gender? a. Male ☐ b. Female ☐

5. What is your age group?

g. Below 20

h. 20-30

i. 31-40

j. 41-50

k. 51-60

l. Over 60

a. Over 15 years

6. Education Level

a. Primary Education

b. Secondary Education

c. Vocational Training Education

d. University Education

e. No Education

C. QUESTIONS

The following is the list of perceptions regarding female ownership of motorcycle and tricycle commercial taxis. Rate the extent to which you agree or disagree with each of the statements below. (Tick/write the correct number based on your understanding and belief) where 1-Strongly disagree, 2 -Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree.

	Perceptions	Rating				
	Economic Perceptions	1	2	3	4	5
1.	Females cannot own motorcycle and tricycles commercial taxis as they lack adequate business capital					
2.	Females cannot own motorcycle and tricycles commercial taxis as they lack adequate training on assets ownership					
3.	Females cannot own motorcycle and tricycles commercial taxis as they lack credit worthiness					
4.	Females cannot own motorcycle and tricycles commercial taxis as they lack access to information					
5.	Females cannot own motorcycle and tricycles commercial taxis as they lack business networking					
6.	Females cannot own motorcycle and tricycles commercial taxis as this may make her dominate the male partner					
7.	Females cannot own motorcycle and tricycles commercial taxis because cannot entertain new ideas with enthusiasm					
8.	Females cannot own motorcycle and tricycles commercial taxis because they don't like to do things that others may not think of					
9.	Females cannot own motorcycle and tricycles commercial taxis because they cannot make decision that others call 'innovative'					
10.	Females cannot own motorcycle and tricycles commercial taxis as are challenged by situations that require creativity					
11.	Females cannot own motorcycle and tricycles commercial taxis because they cannot do something challenging					
	Social-cultural Perceptions	1	2	3	4	5

1.	Females cannot own motorcycle and tricycles commercial taxis due to cultural restrictions					
2.	Females cannot own motorcycle and tricycles commercial taxis as their roles are being restricted to housekeeping and domestic/household tasks such as additional care to spouse and offspring					
3.	Females cannot own motorcycle and tricycles commercial taxis as majority of practitioners in this business are men and therefore, they are likely to be exposed to sexual relationship					
4.	Females cannot own motorcycle and tricycles commercial taxis as it is difficulty in striking a balance between household responsibilities and business management					
5.	Females cannot own motorcycle and tricycles commercial taxis as are less capable of performing					
6.	Females cannot own motorcycle and tricycles commercial taxis as can never do things which they are not sure of.					
7.	Females cannot own motorcycle and tricycles commercial taxis as are less hard workers					
8.	Females cannot own motorcycle and tricycles commercial taxis as this is male dominated business					
9.	Females cannot own motorcycle and tricycles commercial taxis as this is less respected business in the community					
	Psycho-physiological Perceptions	1	2	3	4	5
1.	Females cannot own motorcycle and tricycles commercial taxis as females have low level of confidence					
2.	Menstrual cycle phase may influence performance in administering motorcycle and tricycles commercial taxis business					
3.	Being pregnant, leaving alone the side effects may hinder females ability to manage motorcycle and tricycles commercial taxis business					
4.	Side-effects of pregnancy such as nausea or backache may influence females perceived physical capability to administer motorcycle and tricycles commercial taxis business					

5.	Post pregnancy effects may discourage females ownership of motorcycle and tricycles commercial taxis					
6.	Females cannot own motorcycle and tricycles commercial taxis because they do not like to increase their status and prestige					
7.	Females cannot own motorcycle and tricycles commercial taxis as they have low ambition					
8.	Females cannot own motorcycle and tricycles commercial taxis as they have low control over the direction of their life					
9.	Females cannot own motorcycle and tricycles commercial taxis because they do not believe success depends on their own doing					
	Ownership of Motorcycle	1	2	3	4	5
1.	Majority of females do not own a motorcycle and tricycle commercial taxis					
2.	Majority of females don't have a motorcycle and tricycle commercial taxis ownership card					
3.	Majority of females are not ready to spend their money for investing in motorcycle and tricycle commercial taxis					
4.	Majority of female are not ready to take a loan for investing in motorcycle and tricycle commercial taxis					

APPENDIX THREE: INTERVIEW GUIDE (KISWAHILI)

MAHOJIANO

UTANGULIZI

Sisi, wafanyakazi wa Chuo cha Taifa cha Usafirishaji (NIT) tunakusanya taarifa kama sehemu ya utafiti wetu unaohusu "Mtazamo kuhusiana na wanawake kumiliki biashara ya pikipiki na bajaji nchini Tanzania", utafiti huu umefadhiliwa na taasisi ya REPOA ambayo hufanya tafiti zenye lengo la kuondoa umaskini "Research on Poverty Alleviation". Kwahiyo lengo la utafiti huu ni kubaini ni kwa kiwango gani mtazamo huu una athari kwa wanawake hususani katika umiliki wa biashara ya pikipiki na bajaji. Kwahiyo, tunakuomba ushiriki katika utafiti huu, kama utakubali kushiriki taarifa utakazo toa zitakuwa ni siri na hautatakiwa kutaja jina lako; pia taarifa zitatumika kwa malengo yaliyokusudiwa tu na si vinginevyo. Ukiwa na maswali kuhusiana na utafiti huu, unaruhusiwa kuuliza sasa na hata baadaye unaweza kuwasiliana nasi; hivyo basi ili kufanikisha lengo hili tunaomba ushirikiano wako katika kujibu maswali haya ya mahojiano.

1. Je, unaamini wanawake wanaweza kumiliki na kuendesha biashara ya pikipiki na bajaji? Ndio/ Hapana. Elezea
2. Je, unafahamu wanawake wangapi ambao wana miliki biashara ya pikipiki na bajaji?
3. Kuna madai kwamba wanawake hawawezi kumiliki biashara ya pikipiki na bajaji kibiashara kwa sababu ni kwa ajili ya wanaume pekee. Je una maoni gani kuhusu kauli hii?
4. Biashara nyingi za pikipiki na bajaji zinafanywa na wanaume kwa sababu ya hatari zake. Je, unaweza kueleza kwa nini?
5. Wanawake hawawezi kukabiliana na changamoto zinazohusiana na biashara za pikipiki na bajaji, ndiyo sababu wengi wao hawajihusishi na biashara hiyo. Je una maoni gani kuhusu hilo?
6. Je, unaamini jinsia ndiyo sababu inayochangia umiliki wa biashara za pikipiki na bajaji? Ndio/Hapana. Tafadhali elezea
7. Je, unaamini mazingira na utamaduni wetu ndio sababu kuu inayosababisha wanawake kutoshiriki katika biashara za pikipiki na bajaji? Ndio/ Hapana. Tafadhali elezea

8. Kwa kiwango gani kazi za nyumbani kama usafi na majukumu ya ziada ya kumtunza mwenzi na watoto yanazuia wanawake kumiliki na kuendesha biashara za pikipiki na bajaji?
9. Kwa wanawake, jinsi gani sababu za kibaolojia zinaathiri umiliki na uendeshaji wa biashara za pikipiki na bajaji?
10. Je, ujauzito na athari zake, kama vile kichefuchefu au maumivu ya mgongo, inawezaje kuathiri uwezo wa wanawake kusimamia biashara za pikipiki na bajaji?
11. Je, unaona kuna tofauti katika mafanikio ya biashara kati ya wanaume na wanawake wanaomiliki pikipiki na bajaji?
12. Ni vikwazo gani unadhani vinaweza kuzuia wanawake kumiliki na kuendesha biashara ya pikipiki na bajaji?
13. Je, serikali inafanya juhudi gani kuhimiza na kuwezesha wanawake kumiliki na kuendesha biashara ya pikipiki na bajaji?
14. Unafikiri ni hatua gani zinazoweza kuchukuliwa ili kuongeza ushiriki wa wanawake katika biashara hii?
15. Je, kuna mifano au mafanikio ya wanawake wanaomiliki biashara ya pikipiki na bajaji ambayo unaweza kuitaja?

APPENDIX FOUR: INTERVIEW GUIDE (ENGLISH)

INTERVIEW GUIDE

We are staff from the National Institute of Transport (NIT), collecting data as part of the study titled ***“Perceptions about Female Ownership of Motorcycle and Tricycle Commercial Taxis in Tanzania”*** which is financed by Research on Poverty Alleviation (REPOA). The study will show how the perceptions affect female ownership of motorcycle and tricycle commercial taxis. You are under no obligation to participate in this study. However, anonymity and confidentiality will be maintained if you participate in the research. Moreover, the data provided will only be used for the intended purpose only. If you have any questions regarding this research study, you can contact us; To achieve the objectives of this study, we kindly require your valuable time in answering these questions.

1. There is a claim that female cannot own the motorcycle and tricycles commercial taxi business because the business is for men only. What can you say about that?
2. Most motorcycle and tricycles commercial taxi businesses are owned and operated by men because it is too risk. Can you explain why?
3. Female cannot handle the challenges associated with motorcycle and tricycle commercial taxis business that's why most of them are not dealing with the business. What can you say about that?
4. Do you think gender is the factor that determines the ownership of motorcycle and tricycles commercial taxi business? Yes/No. Explain how?
5. Do you think our environment and culture are the main factors leading female not to participate in the motorcycle and tricycle commercial taxis business?
6. To what extent do housekeeping and domestic/household tasks such as additional care to spouse and offspring hinder female from owning and operating motorcycle and tricycles commercial taxis?
7. As female, how do biological factors affect motorcycle and tricycles commercial taxi business ownership and operation?
8. How does pregnancy and its side effects, such as nausea or backache, affect the capacity of female to administer motorcycle and tricycles commercial taxi business?

APPENDIX FIVE: WORK PLAN

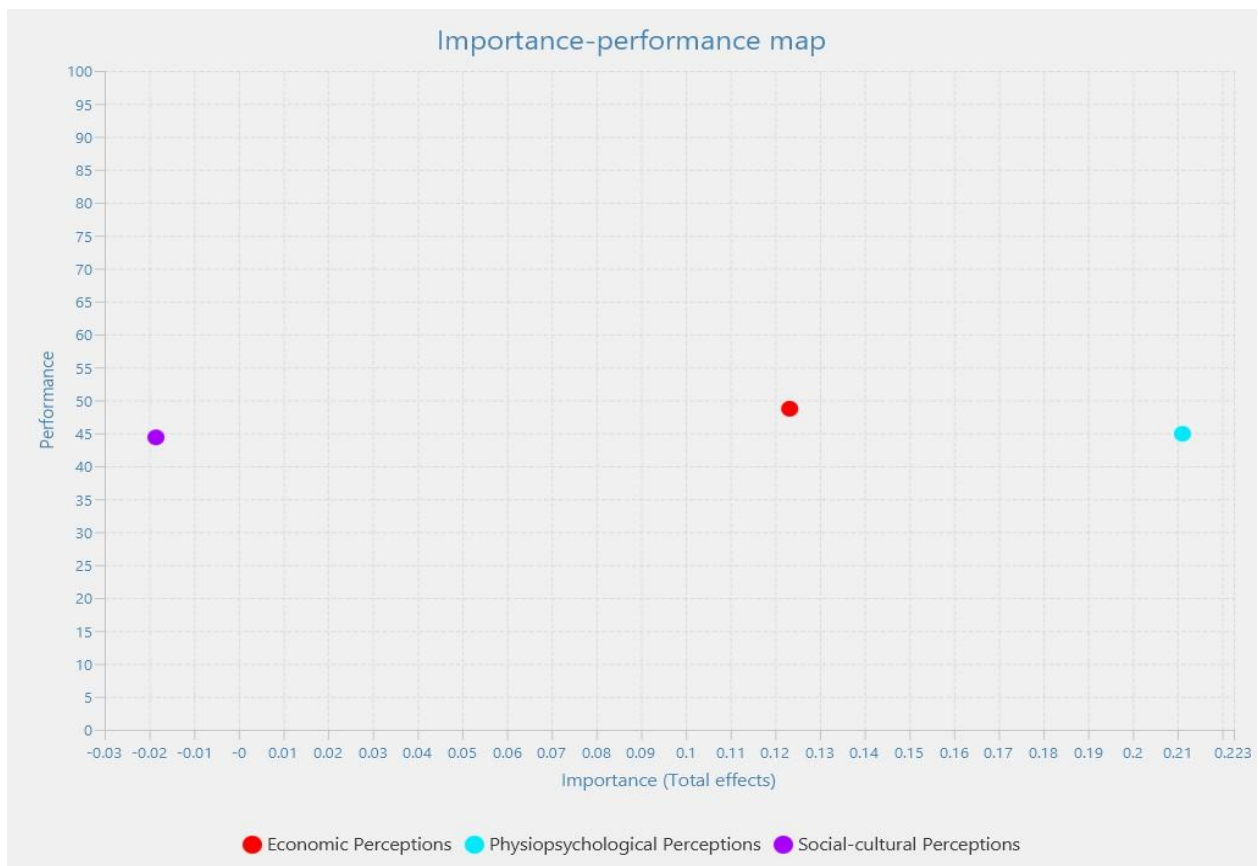
S/N O	ACTIVITY	DURATION
1.	Background analysis and Proposal Writing	3 Months
2.	Team meeting to craft questionnaire instrument & testing	15 Days
3.	Identification, distribution & collection of the questionnaire to participants	15 Days
4.	Analysis of the data and writing of the report	3 Months
5.	Discussion & presentation of the report with stakeholders meeting	3 Months
6.	Refining of the report and submission	2 Months

APPENDIX SIX: BUDGET

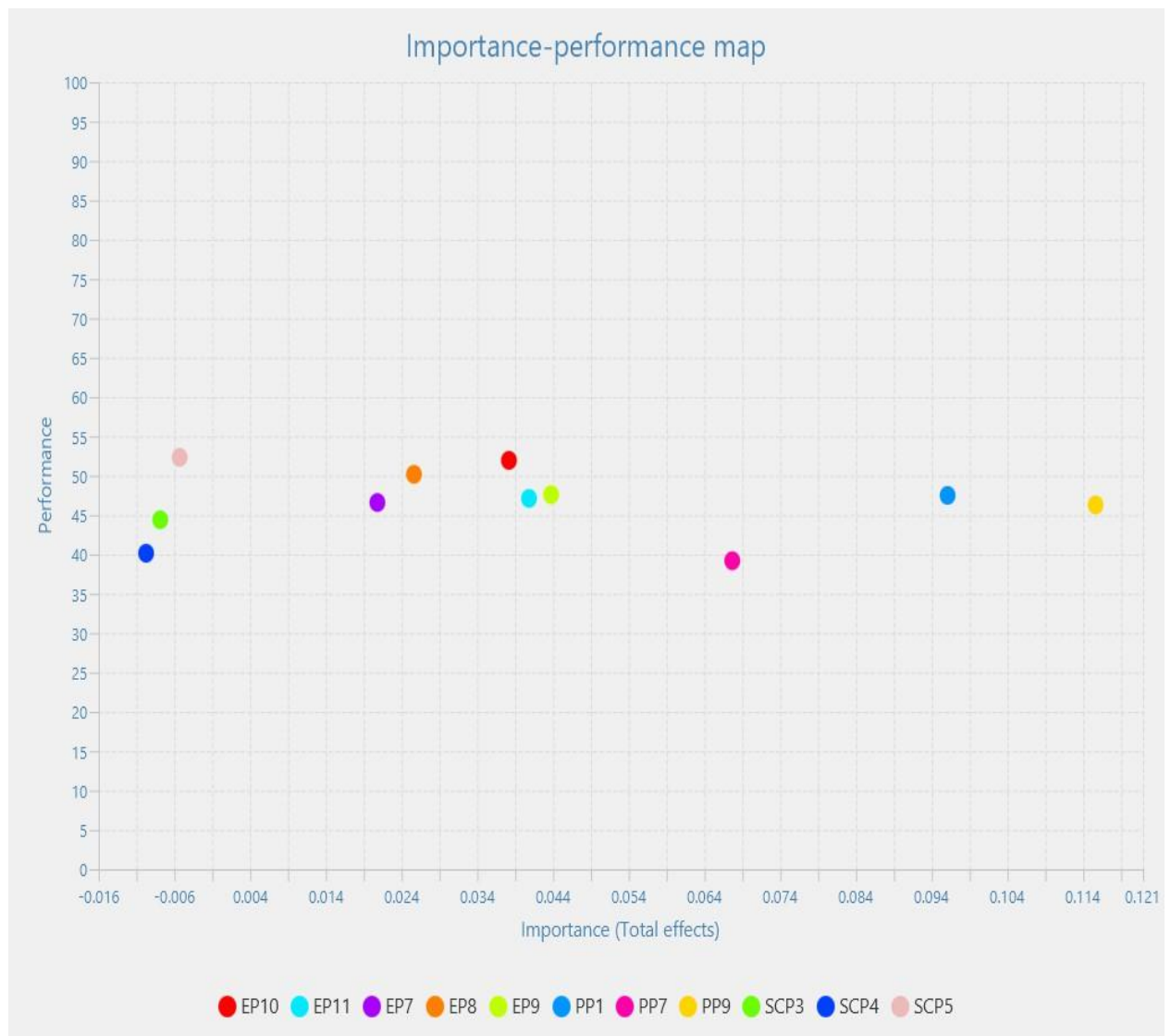
Main Activity	Cost Description	Quantity /persons	Days	Rate (TZS)	Amount (TZS)
Proposal Writing and Refining	Sitting allowance for researchers	4	4	150,000	2,400,000
	Hotel room for meeting	-	4	100,000	400,000
	Stationery (pens, notebooks, photocopy, printing, etc)	-	-	50,000	50,000
	Sub-total				2,850,000
Data Collection Tools Development and testing Data Collection	Sitting allowance for researchers	4	2	150,000	1, 200,000
	Hotel room for meeting	-	2	100,000	200,000
	Sub-total				1,400,000
	Half Perdiem	4	7	75,000	2,100,000
	Transport	4	7	50,000	1,400,000
	Stationery (pens, notebooks, photocopy, printing, flipcharts, etc)	-	-	100,000	100,000
	Hotel room for a meeting	-	2	100,000	200,000
	Sub-total				3,800,000
Data Entry, Analysis and Report Writing	Sitting allowance for researchers	4	5	150,000	3,000,000
	Stationery (pens, notebooks, photocopy, printing, flipcharts, etc)	-	-	200,000	200,000
	Hotel room for a meeting		5	100,000	500,000
	Sub-total				3,700,000
Discussion & presentation of the report with stakeholders meeting	Half Perdiem	4	2	75000	600,000
	Transport	4	2	50,000	400,000
	Stationery (pens, notebooks, photocopy, printing, flipcharts, etc)	-		100,000	100,000
	Hotel room for meeting	-	2	100,000	200,000
	Sub-total				1,300,000
Refining of the report and submission	Language Editing				500,000
	Sitting allowance for researchers	4	2	150,000	1,200,000
	Hotel room for meeting	-	2	100,000	200,000

Professional Fee	Stationery (pens, notebooks, photocopy, printing, flipcharts, etc)	-	1	50,000	50,000
	Sub-total				1,950,000
	Team leader & group members	3		1,000,000	3,00,000
Sub-total					3,000,000
Total					18,000,000

APPENDIX SEVEN: IMPORTANCE-PERFORMANCE MAP (IPMA) (CONSTRUCTS STANDARDIZED EFFECTS)



APPENDIX EIGHT: IMPORTANCE-PERFORMANCE MAP (IPMA) (INDICATORS STANDARDIZED EFFECTS)





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