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Contribution of bodaboda business towards Poverty alleviation among youths in Tanzania: A case of Kirumba Ward; Ilemela District, Mwanza Region.

BY

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Abstract

Bodaboda business has become a popular segment for creating employment for many young people, thus changing the face of rural-urban areas transport services in Tanzania. The contribution of young people in any country's economic, social, cultural and environmental development is crucial. The study aimed at assessing the contribution of bodaboda business towards poverty alleviation among youth in Tanzania. The study had three research objectives as follows; first to examine the income of Bodaboda riders as they engage themselves in Bodaboda business. Secondly, to determine the contribution of bodaboda to other economic activities in Kirumba ward and lastly to identify the influence of the bodaboda ownership structure among youths in Kirumba Ward. The study adopted a quantitative approach. The study population was 784, where by 265 samples were selected using simple random sampling was used to select bodaboda riders who were provided with questionnaires. Data were analysed using SPSS using version 26. The study results found that all the predictors significantly influence poverty alleviation. The findings revealed a positive and significant relationship between bodaboda income, the contribution of bodaboda to other business activities and the influence of bodaboda ownership on poverty alleviation. The study concluded that bodaboda businesses improve the welfare of riders and, hence, poverty alleviation. Further research is needed to understand the underlying causes of gender distribution and work towards a more balanced participation in the bodaboda industry, as it was found that no women were involved in this business industry in Kirumba.

Keywords: Bodaboda business, Income, other economic activities, ownership structure, Kirumba Ward

1. INTRODUCTION

Globally, Motorcycles have long been the most popular form of motorized transportation worldwide. For instance, the motorbike taxi industry in London first emerged in the early 1990s to provide high-class travelers with an alternate mode of transportation since they were sick of being stuck in gridlock when traveling to and from the airport. Since then, the method has continued to provide transportation services that are more affordable, quicker, and convenient than those provided by other modes of transportation (Anon, 2014). In Taiwan, around one in four persons drive a car, compared to one in two who ride motorbikes. Due to insufficient public transportation and the exorbitant cost of existing cars for many Vietnamese people due to their low-income levels, the usage of motorcycles for both business and personal use is even more prevalent (Nkede, 2012).

The provision of transportation services has undeniably significantly impacted poverty reduction and economic development within rural communities, manifesting in various ways. Firstly, it is important to acknowledge the significant presence of economically disadvantaged individuals residing in rural areas who derive their primary source of income from engaging in transportation services across several Sub-Saharan African nations. The engagement in cart pushing, commercial pedestrian portage, and related occupations such as bicycle and motorcycle repair has historically served as a significant source of employment for economically disadvantaged young males. In addition, motorcycle taxis are utilized by employers, predominantly in urban areas, typically under a contractual arrangement for transportation services (AFCAP, 2013).



Many individuals rely on motorbikes to make a living (Taruwera, 2012). Riders depend on revenue from motorcycles supporting their families (Arosanyin, 2011). Due to the widespread usage and ownership of motorcycles in Northern Ghana, many urban dwellers' lifestyles have substantially improved (Dinye, 2013). The increased usage of motorbikes makes it easier for many urban inhabitants to relocate even to peri-urban areas with poor roads and insufficient public transportation networks. The rise in motorcycle usage has led to many employment opportunities for individuals operating motorcycles. The motorcycle industry has witnessed a notable rise in employment prospects for motorcycle technicians and spare parts vendors, leading to enhanced income-generating potential for individuals engaged in this sector.

In Tanzania, the influx of hundreds of thousands of "Boda Boda" started in 2009 when the government licensed them alongside the three-wheelers commonly known as "Bajaj" to carry passengers in a bid to reduce transport problems, especially in urban areas but also in rural areas. Most unskilled and semiskilled youths engage in this industry as alternative economic opportunity in attain their livelihoods after experiencing negative rewards from agricultural activities and other economic activities for several years (Salum, 2015). Motorcycle riders, mechanics, and spare-part dealers have earned daily income from motorcycle-related activities to support their livelihoods (Deppuh, 2022). The bodaboda owners that embraced this business saw a 50% boost in revenue, raising the standard of living for those working in the motorbike industry (Luvinga et al., 2021)

In Ilemela district Bodaboda business is a significant part of the transportation industry. The district is a bustling urban center, and the bodaboda operators play a vital role in providing affordable and convenient transportation for residents and visitors. There are approximately 3800 registered bodabodas, according to Ilemela District authorities. The business has contributed to the local economy by creating employment opportunities, especially for the youths, contributing to their livelihoods for riders, and supporting other industries such as the sale of spare parts and fuel for motorcycles. However, studies have been conducted on extent to which bodaboda business has contributed to poverty alleviation among youths. Thus, this study was important since it looked on the contribution of motorcycle taxi operations on poverty alleviation among youth who are largely players in the industry in Ilemela District. Findings provides a platform for policymakers and decision-making bodies to set policies and strategies to ensure that bodaboda business has significant contribution in improving peoples standard of life.

2. Objectives of the Study

This study was guided by general and specific objectives, which can be described below.

General Objective

To assess the contribution of bodaboda business on poverty alleviation among youths in Kirumba ward.

Specific Objectives

- i. To examine the income of Bodaboda riders as they engage themselves in Bodaboda business.
- ii. To determine the contribution of bodaboda business to other economic activities
- iii. To identify the influence of bodaboda ownership structure in bodaboda business among youths in Kirumba

3. Theoretical Literature Review

New Growth Theory

Paul Romer established the New Growth Theory during the latter part of the 1980s and early 1990s. Romer posits that the process of economic growth is not exclusively contingent upon the accumulation of capital and labour inputs but rather is influenced by the presence and advancement of innovation, technology, and knowledge. The idea postulates that allocating resources towards human capital and knowledge acquisition can result in long-term economic expansion. One of the fundamental principles underlying new growth theory is the premise that competition diminishes profits and compels individuals to pursue superior and more effective approaches to optimize their profit potential, irrespective of the obstacles encountered. Hence, this theoretical framework emphasizes the role of entrepreneurship, knowledge acquisition, innovation, and technological progress as key drivers of economic growth. In general, the New Growth Theory emphasizes the significance of several factors and their interconnectedness in stimulating sustained economic growth, which frequently leads to enhancements in living standards and the elimination of poverty. This applies not only to inventive young individuals but also to the broader society.

The New growth theory developed by Economist Paul Romer One of these strengths is that it emphasises innovation and knowledge, unlike the neoclassical growth theory. The theory focuses on innovation and technological progress as the key factors for poverty alleviation. This emphasis on knowledge and innovation is more in line with the modern generation of youth, where technological progress plays a critical role in driving growth and development of informal employment, for example, bodaboda business..

New Growth Theory is a framework in economics that focuses on the role of innovation, technology, and knowledge in driving economic growth. In the context of bodaboda in Tanzania, New Growth Theory is relevant in several ways.

4. Empirical Literature Review

Income of Bodaboda Riders on poverty alleviation

Youth of between 25-35 in Kenya enter the informal sector business, most of whom enter the bodaboda business. However, the socioeconomic benefits of the bodaboda business have shown the direct and indirect opportunities for income generation (Gitong, 2021). Unemployment is a serious development issue that have been worked by the government of Tanzania and other stakeholders in the business development and poverty eradication among youth in Africa and worldwide. It has been estimated that 64% of the unemployed population in Tanzania are youth. Only 1.5% of

them have formal education beyond secondary education, and the remaining 92% have no vocational professional skills training, creating a larger number of idle people. As a result, some of them get into crimes (Handa & Riko, 2019). Others try to engage in business activities such as bodaboda, hackers, and vendors that help them to earn household income for the survival of their families.

Rural poverty eradication has been of interest around the world that includes many microeconomic incomes, social economic, and demographic factors influencing small and medium enterprises in the world (Ajay, 2015). The interest of the researcher is based on the income of the individual household and its contribution to the Tanzanian economy as the number of youth unemployed is increasing while employment opportunities are decreasing, this phenomenon pushes the youth to engage directly in the bodaboda business and other small and medium enterprises (Phinius, 2018). Small and Medium Enterprises drive the economic development in the world, The business accounts for 90% of the business in both leading and developing economies through job creation, employment, tax provisions, and contribution to Gross domestic products (GDP). Besides the number of challenges facing SMEs particularly the bodaboda business that range from powers shortage, lack of capital, poor management skills, and competences and inadequate information and corruption prevailing in almost all African countries including Tanzania (Samuel, 2017). It is notable that most African governments give very little support for the SMEs in Tanzania, including the support for youth business as bodaboda riders. The researcher found this challenge among the bodaboda business in Tanzania, particularly Kirumba Ward in Mwanza City, Ilemela has a greater number of bodaboda businesses compared to other Districts in Mwanza City (Fredrick, 2013). The economic development needs this group of youth as the majority with energy to work and produce to contribute to the poverty eradication in Tanzania.

Steinert et al. (2017) argue that saving promotion interventions have gained momentum in international development over the recent years, and saving promotion significantly results in poverty alleviation. Saving has become an important means for the economic sustainable cash-flow management and consumption that smoothing all poor people in response. Researchers have promoted Saving programmes as a promising poverty alleviation strategy in the international arena development; saving can be used as investment capital; for example, the business, education, and job search as the only safe insurance against health shocks, and other property damage, helps to smooth the surface income challenges and other financial tools, saving can strengthen a good feeling of individual efficacy self-wealth worth instead of creating dependency.

Hussein (2022) conducted a study on the impact of the bodaboda business on income enhancement among riders in Dodoma City Council, located in the central region of Tanzania. The primary objective was to ascertain the income level of bodaboda riders after their engagement in the transportation industry.

The study findings suggest that the bodaboda transport industry in the study area significantly impacts income levels, as seen by a substantial effect size. Additionally, engaging in this activity enables riders to establish new money-generating activities and enhance pre-existing ones. The study's findings indicate that the bodaboda transport industry has had a substantial impact on the income levels of riders and has contributed to a reduction in unemployment rates, particularly among the youth population within the study area.

The research was undertaken by Nyaga (2017) in the Chuka Division of Meru South Sub-County, located in Kenya. The researcher conducted a study on the impact of motorcycle taxis, also known as Bodabodas, in facilitating access to rural areas in Kenya. The research employed descriptive methods and probabilistic sampling approaches, specifically simple random and cluster sampling. These methods were employed to select a sample size of 100 bodaboda operators. The study revealed socio-economic benefits associated with bodaboda operators, as evidenced by 80% of the respondents who reported making savings through their self-help groups.

Contribution of bodaboda business to other Economic Activities

In a study conducted by the Citizen (2022) Bodabodas, or motorcycle taxis, have significantly impacted Tanzania's economy. In addition to providing transportation services, the bodaboda industry has created various economic opportunities for individuals and businesses in Tanzania. Spare Parts Sales has grown as a result of bodaboda. Many people have opened shops and businesses that sell spare parts for motorcycles, allowing entrepreneurs to make money.

Leyland (2019) asserts that transportation is a fundamental necessity for facilitating income-generating endeavours that enhance the quality of life for young individuals residing in both urban and rural regions. However, bodaboda has contributed to the enhancement of other income-generating endeavours, such as the sale of fuel. The operation of bodabodas necessitates fuel utilisation, resulting in a rise in the number of fuel stations in Tanzania. Establishing these fuel stations has resulted in the generation of employment possibilities for individuals and has additionally facilitated the expansion of the fuel sector.

According to Adams (2021), bodaboda is a means for advertising. Companies and organizations can promote their products and services by utilizing the advertising space on the rear end of bodaboda motorcycles, thereby generating supplementary revenue for bodaboda riders. Furthermore, many bodaboda operators have begun embracing mobile money transactions as a means of payment for their services, hence facilitating a more convenient payment process for passengers. Furthermore, this initiative has played a significant role in fostering financial inclusion inside Tanzania, as well as contributing to the growth and development of the mobile banking industry.

The bodaboda transportation sector has emerged as a notable provider of employment opportunities for young individuals in Uganda and Tanzania. In Uganda, the agricultural sector is

the primary employer of youths, followed by another significant sector, as highlighted by Amone (2021). The bodaboda industry in Tanzania is a lucrative venture, with a favourable benefit-cost ratio of 2.8 and a net present value of 8,494,920 Tanzanian Shillings over five years. Hussein et al. (2022). Nevertheless, the sector generates substantial profits and plays a significant role in fostering various economic activities notwithstanding the difficulties it presents.”Ngerema (2020) asserts that the bodaboda is a prominent means of transportation for individuals and goods. Bodabodas frequently serve as a means of transportation for courier services, facilitating the delivery of shipments and documents around the nation. The emergence of this phenomenon has resulted in the generation of employment opportunities within the courier sector, thereby contributing to the enhancement of logistics and transportation systems in Tanzania. Numerous delivery enterprises, such as PizzaFaster, KFC, Burgerhut, EMS, and similar establishments, have experienced enhanced operational effectiveness due to the influence of the bodaboda industry in Tanzania”.

Buziku (2021) did a study examining the effects of Bodaboda on the well-being of youth in Uganda. The study incorporated primary and secondary data, with a sample size of 200 Bodaboda bikers. The utilization of descriptive data analysis was implemented. The data revealed that many young individuals initiated entrepreneurial ventures as a direct consequence of their involvement in Bodaboda operations. The Bodaboda industry has significantly contributed to improving the welfare of young individuals in Uganda.

In line with the research conducted by Luvinga (2020) in Arusha City, located in Tanzania. The present study investigates the impact of the bodaboda transport industry on the socioeconomic well-being of young individuals residing in the Arusha Region of Tanzania. The study employed a cross-sectional research design, in which data were gathered through structured questionnaires and interview schedules. A total of 90 participants were selected by a random sampling approach known as simple random sampling. The study's findings indicate that the bodaboda transport industry significantly impacts many economic activities pursued by young individuals, including small-scale farming, cattle rearing, and other forms of employment.

Youth individuals can enhance their socioeconomic circumstances and produce financial resources by engaging in Bodaboda's business program, which entails securing employment within the company's designated area. The research findings indicate a requirement for enhanced infrastructure to facilitate the safe engagement of young individuals in Bodaboda activities, hence augmenting their capacity to fulfil their employment responsibilities related to crop harvesting.

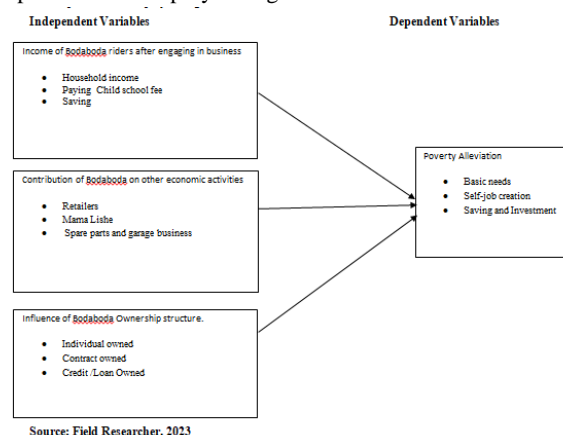
Bodaboda Ownership Structure in bodaboda business

The prevalence of Bodaboda usage in urban environments, particularly among young individuals, has notably impacted their capacity to get financial resources to enhance their overall quality of life (Adam, 2012). The bodaboda

transportation system has been widely recognized as a crucial mode of conveyance for individuals and products, while also serving as a significant source of employment and revenue for bicycle operators and owners. This, in turn, adds to the enhancement of the overall quality of life within a given nation. The prevalent ownership structure for bodabodas is individual ownership when a sole individual possesses and manages the bodaboda. The proprietor is responsible for all facets of the enterprise, encompassing upkeep, refueling, and promotional activities. Additionally, a study conducted by Olawo et al. (2014) in Kenya. The researchers studied the impact of increased investment in the bodaboda business on the economic empowerment of individuals in Kisumu West District. The findings indicated that engagement in bodaboda business operations favourably impacted the economic empowerment of individuals residing in Kisumu West District.

Urioh (2020) conducted a study to evaluate the impact of the Bodaboda company on enhancing the quality of life among young individuals in Tanzania. The research employed a Mixed research approach. The study focused on a sample of 71 Bodaboda business riders who were affiliated with a registered association. Data gathering methods included interviews, questionnaires, and document evaluations. The results indicate that individuals who possess motorbikes tend to have better incomes and utilize their motorcycles more effectively to enhance their career advancement, in contrast to individuals who operate motorcycles owned by their employers.

A study by Mukwaya et al. (2022) in Uganda explored the dynamics of bodaboda associations in Greater Kampala, focusing on the relationship between regulation and informality. The study found that each bodaboda rider in the region seemed to possess their motorcycle. Individual ownership is associated with several benefits, including enhanced financial stability, improved safety measures, and the potential for employment growth.



5. RESEARCH METHODOLOGY

Research Design

This study employed a quantitative research strategy, facilitating data collection from a bigger population, thereby incorporating a target number of respondents. This approach



enabled the researcher to investigate the association between variables. The proposed framework and methodology for identifying and categorising relevant sources and information are required to address the research inquiries (Asenahabi, 2019).

Population of the Study

In this study, the population is Bodaboda riders in their specific registered group located in Kirumba ward; their population number is 784, this is according to Statistics from the office of Umoja wa waendesha piki piki at Kirumba Ward (2021).

Sample Size

In this study sample size was drawn from a population of registered Bodaboda riders. Therefore, the study uses the simple formula from Kothari and Garg (2014) to obtain a Sample size of bodaboda riders, as illustrated below.

$$n = \frac{N}{1 + N (\epsilon)^2}$$

Where

n = Number of Sample size

N = Number of the study population (784 registered bodaboda at Kirumba Ward)

e = the level of error estimations

I choose 95% to be confident accurately; therefore, 0.05 is the number of emerging errors

Thus

$$n = 784 / 1 + 784 (0.05)^2$$

$$n = 784 / 2.96$$

$$n = 265$$

The study will use a Sample Size of 265 registered bodaboda riders from different parking areas within Kirumba Ward.

Sampling Procedure

The researcher used probability sampling, specifically a simple random sampling technique used to select respondents.

Data collection instrument

This study used Closed-ended questions to collect the data, these were covered in parts A to E, which cover demographic and Likert scale questions to facilitate easy interpretation and analysis of the collected data. The research used Closed-ended questions to help gather fast, precise answers while reducing the amount of thinking the participants, as participants filled out a questionnaire giving valuable primary information, and the collected data were quantitatively analysed.

Data Analysis

Data collected from respondents through questionnaires was checked for consistency to eliminate misleading data that could arise from misrepresenting questions in questionnaires. Parametric assumptions were also checked by testing data's normality, linearity, and homoscedasticity. This was followed by Exploratory Factor Analysis (EFA) to confirm whether the indicators fall within the required construct. The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Results were presented in descriptive and inferential statistics. The descriptive components such as

Percentage, Mean, and Standard Deviations will help group respondents according to their age, education, and gender. Inferential statistics comprising Pearson-Product Moment Correlation and Multiple Regression was used to test the relationship between the independent and dependent variables (Cresswell, 2014).

Table 1: Data analysis summary

ITEM	ANALYSIS METHOD	MEASURING SCALE	RESULTS REPRESENTATION
Respondent profile Age Gender Education	Quantitative	Checkboxes	Descriptive Statistics (Percentage, Mean, Standard Deviations)
Research Objective 1 Income of bodaboda riders as they engage themselves in business Household income Paying Child school fee Saving	Quantitative	1-5 Likert-scale	Correlation and Regression (r, t-test, F-test, R, and R ²)
Research Objective 2 Contribution of bodaboda business on other economic activities Retailers Mama Lishe Spare parts and garage business	Quantitative	1-5 Likert-scale	Correlation and Regression (r, t-test, F-test, R, and R ²)
Research Objective 3 Bodaboda ownership structure Individual owned Contract owned Credit/Loan Owned	Quantitative	1-5 Likert-scale	Correlation and Regression (r, t-test, F-test, R, and R ²)

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All variables	Quantitative	1-5 Likert-scale	Multiple-Regression $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$
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Source: Researcher, (2023).

Response rate

This section shows the analysis of successful responses from the study. Response rate is very important to explain if the sample elaborated in the study was sufficient to conclude. Therefore, Table 2 provides statistics on the successful responses.

Table 2. Response rate

Targeted Participants	Successful responses	Percent of responses
265	218	82.26%

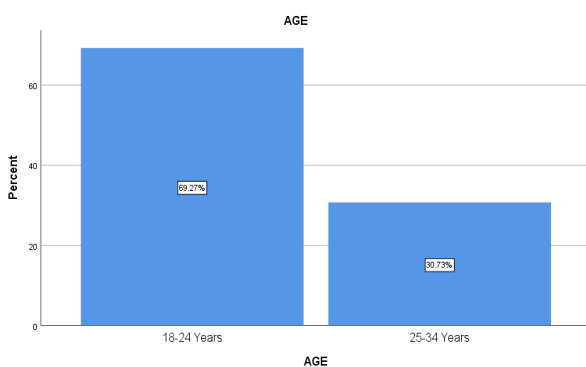
Source: Researcher (2023)

The study targeted a sample of 265 participants from a population of 784 who were provided questionnaires by the researcher. Successful 218 questionnaires were returned to the researcher. The score above suggests a response rate of 74.47%. As indicated by Ndemi (2014), a response rate above 50% is considered satisfactory, 60% good and above 70% is very good for study purposes. As the response rate of the study is 82.26%, the sample is considered a very good conclusion of the study.

Demographic distribution

Demographic distribution refers to how populations are spread across different age groups, genders, geographic regions, and other relevant categories within a given area or society. This distribution provides valuable insights into the composition and dynamics of a population. Understanding demographic distribution is crucial for governments, policymakers, and organizations as it influences social and economic decisions.

Graph 1: Age distribution of participants

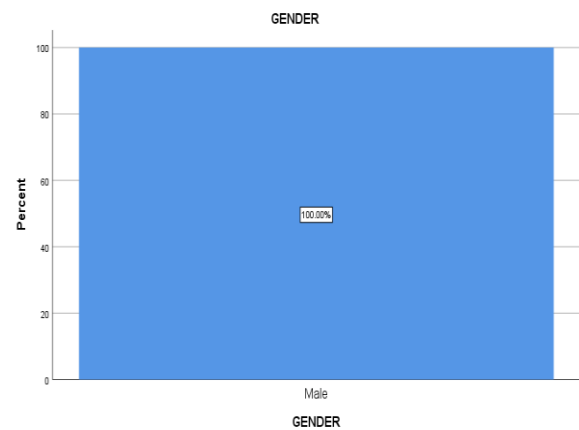


Source: Researcher (2023)

From the result, the largest proportion of bodaboda participants falls within the 18-24 age group, constituting a significant majority. This age range typically represents young adults and college students who might find bodaboda as a means of daily earning for household livelihoods. The 25-34

age group is the second-largest share of bodaboda participants. This segment likely consists of individuals in the workforce who appreciate the contribution of bodaboda for meeting daily basic needs like food, and shelter, and paying other fees like children's and others' needs. From the results, it shows that there are no reported participants from the 35-44 age group. This might suggest that bodaboda are less popular among individuals in this age range, possibly due to personal preferences in another type of business as a mode of earnings for meeting daily basic needs. Similar to the previous category, the results show that no bodaboda participants were reported within the 45-54 age group

Graph 2: Gender distribution

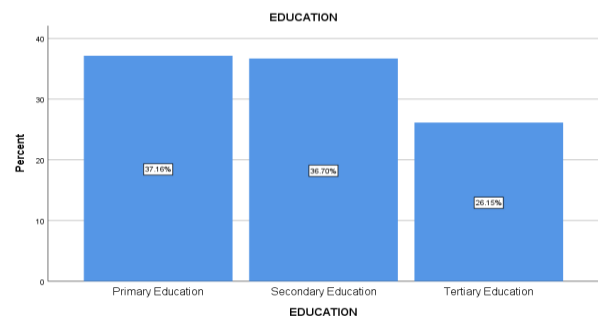


This underscores the importance of examining the reasons behind this gender disparity and addressing any barriers or challenges that might prevent women from utilizing bodaboda services.

Education Distribution

Education levels of bodaboda riders are crucial for any study as they may be used for developing targeted policies, can be used for developing training programs, and initiatives aimed at enhancing the well-being of these riders and improving the overall quality of the industry. The study results are presented below in graph 2.

Graph 2: Education level distribution



The results, show a significant proportion of bodaboda riders have completed primary education. This level has a proportion of 37.16 percent. These individuals have acquired basic reading, writing, and arithmetic skills. Bodabodas might provide an avenue for employment for those pursuing limited education and looking for opportunities to earn a livelihood. A

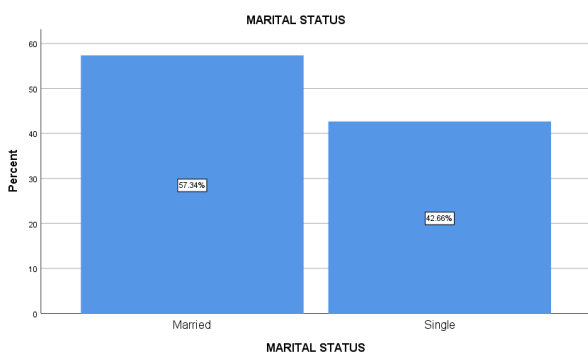


proportion of 36.70 percent has completed secondary education. Nearly an equal percentage of bodaboda riders have completed secondary education. Secondary education typically offers a more comprehensive academic foundation. The prevalence of riders with secondary education suggests that the bodaboda industry attracts individuals with slightly higher educational qualifications. The last proportion of 26.15 percent of participants has a tertiary level of education. A significant percentage of bodaboda riders have attained tertiary education, which encompasses higher education such as university or vocational training. The presence of riders with tertiary education might be attributed to factors such as the unemployment problem in their field of study or the motivation for entrepreneurial opportunities in the bodaboda sector.

Marital Status Distribution

The distribution of marital status among bodaboda riders provides valuable insights into the personal backgrounds of these individuals, A substantial proportion of bodaboda riders who are married are about 57.34 percent. This statistic suggests that the bodaboda industry is not only a source of income for single individuals but also serves as a livelihood for married individuals who are likely supporting families.

Graph 3: Marital status distribution



Descriptive Statistics on Bodaboda’s Income

The following descriptive statistics show income’s influence on bodaboda on sending children to school, building houses, improving personal income status, and enhancing savings accounts.

Table 3: Descriptive statistics on First objectives

	Min	Max	Mean	Std. Dev
I sent my children to school due to bodaboda businesses	1	5	3.53	1.052
I have built a house due to bodaboda business	2	5	3.92	.799

My income status has improved due to bodaboda business	1	5	3.56	1.068
I have a savings account from bodaboda business	2	5	3.94	.818
Total average			3.75	0.93

From the results above, the study shows that I sent my children to school due to bodaboda businesses with a mean of 3.53. The mean score of 3.53 suggests that, on average, bodaboda income moderately helps individuals send their children to school. This implies that the income earned from the bodaboda profession contributes to covering educational expenses, albeit varying for different individuals. I have built a house due to bodaboda business having a mean of 3.92. With a mean score of 3.92, it can be inferred that bodaboda income has a relatively higher impact on helping individuals build houses. This indicates that a significant proportion of bodaboda riders can save and invest in constructing homes for themselves and their families. My income status has been improved due to bodaboda business having a mean of 3.56. The mean score of 3.56 suggests that bodaboda income significantly improves individuals’ personal income status. This implies that engaging in the bodaboda industry positively affects the financial standing of the riders, allowing them to meet their daily needs and financial goals more effectively. I have a savings account from bodaboda business has a mean of 3.94. With a mean score of 3.94, it is evident that bodaboda income plays a substantial role in improving individuals’ savings accounts. This underscores the potential of the bodaboda industry to provide a reliable income source that allows riders to save and plan for their future financial security.

The descriptive statistics of bodaboda income and its impact on various aspects of individuals’ poverty alleviation provide valuable insights into the role of this industry in contributing to financial goals and generally to poverty alleviation. While the impact varies across different domains, the consistent trend of relatively positive mean scores suggests that bodaboda income is instrumental in helping individuals send their children to school, build houses, enhance their personal income status, and improve their savings accounts. This analysis underscores the importance of the bodaboda industry in fostering economic growth and improving the livelihoods of its participants, hence poverty decrease and alleviation.

Descriptive statistics on contribution of bodaboda business on other economic activities

Table 4: Descriptive statistics on the second objective

	Min	Max	Mean	Std. Dev
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I get spare parts from the spare part shops	1	5	3.56	1.064
I get my daily needs from Mama Lishe for food and for the family, I get from retail shops.	2	5	3.93	.803
I take my motorcycle once a week to the nearby garage.	1	5	3.56	1.051
Out of taking passengers, I get many orders from the shop owners for delivery	2	5	3.92	.797
Total Average			3.74	0.92

Source: researcher (2023)

The descriptive statistics of bodaboda contribution activities paint a picture of the industry's significant role in poverty alleviation and local economic growth. The relatively high mean scores across activities such as purchasing spare parts, obtaining daily needs, engaging with garages, and fulfilling delivery orders indicate the industry's positive impact on supporting businesses and generating income within communities. These activities collectively contribute to the economic ecosystem, making the bodaboda industry a vital player in poverty reduction and economic development.

Descriptive statistics on Bodaboda ownership structure

Table 5: Descriptive Statistics on the third objective

	Min	Max	Mean	Std. Dev
I own the bodaboda as my personal property	1	5	3.56	1.055
I worked on a contract to get this bodaboda	2	5	3.93	.811
I got this bodaboda on Credit/loan with interest	1	5	3.55	1.047
I 'm not owning the bodaboda; I'm employed	2	5	3.92	.805
Total average			3.74	0.92

Source: researcher (2023)

The descriptive statistics of bodaboda ownership structure highlight the diverse ways individuals engage with the

industry. Personal ownership, contractual arrangements, credit-based ownership, and employment are all prevalent ownership models within the bodaboda sector. This diversity reflects the economic opportunities the industry provides, accommodating various financial capacities and preferences. Policymakers and stakeholders can use these insights to design supportive programs and initiatives that cater to the different ownership models, ensuring the well-being and success of individuals across the bodaboda industry.

Table 6: Reliability results

Variable	No of items	Cronbach's Alpha
Bodaboda Income on Poverty Alleviation	4	0.701
Bodaboda contribution to other economic activities on Poverty alleviation	4	0.719
Influence of Bodaboda Ownership	4	0.729
Poverty alleviation	3	0.723

The descriptive statistics of bodaboda ownership structure highlight the diverse ways individuals engage with the industry. Personal ownership, contractual arrangements, credit-based ownership, and employment are all prevalent ownership models within the bodaboda sector. This diversity reflects the economic opportunities the industry provides, accommodating various financial capacities and preferences. Policymakers and stakeholders can use these insights to design supportive programs and initiatives that cater to the different ownership models, ensuring the well-being and success of individuals across the bodaboda industry.

Reliability of the test results

Cronbach's Alpha is called internal consistency. Alpha value of 0.60 and above is recommended to indicate an acceptable internal level. (Malhotra, 2009).

Cronbach's Alpha values. Values range from 0.778 to 0.916, indicating that the changes are error-free. This shows the stability and importance of the study results.

Table 7: Correlations analysis results

		IBR	CBA	IBO	PA
IBR	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	218			
CBA	Pearson Correlation	.994**	1		
	Sig. (2-tailed)	.000			
	N	218	218		



IBO	Pearson Correlation	.984**	.969**	1	
	Sig. (2-tailed)	.000	.000		
	N	218	218	218	
PA	Pearson Correlation	.945**	.940**	.931**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	218	218	218	218

** . Correlation is significant at the 0.01 level (2-tailed).

The comprehensive concept of Poverty Alleviation, encompassing the interplay of Bodaboda Income, Contribution, and Ownership, demonstrated a Cronbach's alpha coefficient of 0.723. This coefficient indicates a moderate to high internal consistency among the items measuring the broader concept of poverty alleviation.

Inferential statistics

Correlation Analysis

The analysis revealed significant positive correlations between Bodaboda Income, Contribution on other economic activities, and Ownership with poverty alleviation. The findings provide valuable insights into the role of Bodaboda in poverty reduction efforts. More discussion on the correlation coefficient is provided below after the table

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.945 ^a	.893	.892	.24298

a. Predictors: (Constant), IBO, CBA, IBR

From the result above, the high correlation coefficient (r = 0.945) suggests a strong positive linear relationship between the independent variables and poverty alleviation. This indicates that as bodaboda operators' income increases, the likelihood of poverty reduction also increases. This finding underscores the significant role that bodaboda income can play in lifting individuals and families out of poverty. This implies that a thriving bodaboda industry, by generating employment opportunities, stimulating economic activity, and providing affordable transportation options, can contribute significantly to poverty reduction.

Table 9: Regression Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1 (Constant)	1.409	.298		4.162	.000
IBR	.575	.040	.327	2.660	.008
CBA	.602	.087	.202	3.208	.003
IBO	.324	.070	.321	5.893	.009

a. Dependent Variable: PA

A positive coefficient (β) of 0.575 or 57.5 percent for Income on Bodaboda suggests a positive relationship between Bodaboda income and poverty alleviation. The contribution of Bodaboda on other economic activities has a positive coefficient (β) = 0.602 or 60.2 percent implying a positive relationship to the dependent variable. Influence of Bodaboda Ownership has a positive coefficient (β) = 0.324, indicating that a more favourable ownership structure within the Bodaboda sector corresponds to an increase in the dependent variable.

From the above coefficients multiple regression equation can be written as follows.

$$PA = 1.409 + 0.575IBR + 0.602CBA + 0.324IBO$$

Whereby

PA = Poverty alleviation

IBR = Bodaboda income

CBA = Contribution of bodaboda on other economic activities

IBO = Influence of bodaboda ownership structure.

6. Discussion of the Findings

The correlation analysis results with R >0.9 demonstrate significant positive correlations between Bodaboda Income, Contribution, Ownership, and their impact on poverty alleviation. These findings highlight the interrelated nature of these factors and their collective contribution to poverty reduction initiatives. The strong and very strong correlations suggest that interventions targeting Bodaboda-related factors have the potential to yield positive outcomes in poverty alleviation.

First objective: To examine Bodaboda riders' income as they engage in Bodaboda business.

The study's first objective was to examine the impact of bodaboda-generated income in alleviating poverty. The regression analysis results revealed a significant relationship between bodaboda income and poverty alleviation. The coefficient β of 0.575 indicates a positive association between the income earned from bodaboda operations and the reduction of poverty. This finding aligns with previous research that highlights the potential of the informal sector, particularly the bodaboda industry, as a means of improving economic well-being and alleviating poverty (Smith et al., 2019; Gachoka et al., 2020).

These findings support the notion that the bodaboda sector can serve as a source of employment and income for marginalized communities, potentially leading to improved

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living conditions and decreased poverty rates (Oduro et al., 2017; Chakrabarti, 2020).

Bodaboda income has played a significant role in fulfilling basic needs and accessing essential services. Operators could afford proper nutrition, healthcare, and education for their families. The results highlighted that bodaboda income allowed them to take incremental steps out of poverty.

Second objective: To determine the contribution of bodaboda to other economic activities in Kirumba ward.

From the second objective, the researcher intended to examine the impact of bodaboda on other economic activities. The outcomes of the regression analysis revealed a significant correlation between the contributions of the bodaboda sector on other economic activities about poverty alleviation. The coefficient β of 0.602 indicates a positive association between the contributions of the bodaboda industry on other economic activities to the reduction of poverty. This finding is supported by previous research emphasising the role of informal economies, such as the bodaboda sector, in fostering economic growth and addressing poverty (Nakamura et al., 2017; Nsenga et al., 2020).

These findings are consistent with the idea that the bodaboda industry, through its economic contributions, has the potential to impact poverty levels in communities positively (Fadairo et al., 2020; Hidayat et al., 2022).

Third Objective: To identify the influence of the bodaboda ownership structure among youths in Kirumba Ward.

The researcher intended to examine the influence of bodaboda ownership structure among youth on poverty alleviation. From the results, the regression analysis reveals a significant relationship between bodaboda ownership structure and poverty alleviation. The coefficient β of 0.324 suggests a positive association between the ownership structure within the bodaboda industry and poverty reduction. This finding resonates with previous research highlighting the importance of inclusive ownership models in fostering economic empowerment and poverty reduction (Friedman et al., 2018; Ndiaye et al., 2021).

These findings align with the idea that ownership models that empower a broader population segment and can positively impact reducing poverty (Nkomo et al., 2020; Moyo et al., 2022).

The results show that individual ownership of bodaboda directly impacts poverty alleviation. Many operators, particularly those previously unemployed or with limited options, found a reliable income source through owning a bodaboda. Owning a bodaboda gives a chance of increasing earnings compared to those who do not fully own the bodaboda.

Summary of the findings

Firstly, the study found a strong positive correlation between Bodaboda Income and poverty alleviation. With a coefficient (β) of 0.575, the analysis indicated that higher income

generated through bodaboda operations is closely linked to decreased poverty.

Secondly, the research explored the influence of the Bodaboda Contribution on other economic activities about poverty alleviation. With a coefficient (β) of 0.602, the study revealed a positive association between the levels of contribution from the bodaboda sector has contributed positively to other economic activities and hence reduced poverty.

Lastly, the analysis focused on the Influence of Bodaboda Ownership on poverty alleviation. The findings, characterized by a coefficient (β) of 0.324, showcased that a more inclusive ownership structure within the bodaboda industry positively affects reducing poverty. This result emphasizes the importance of the equitable distribution of benefits within the sector to create pathways to improved economic conditions.

Conclusion

The results emphasize the key role of Bodaboda in poverty reduction efforts and provide valuable insights for policymakers and stakeholders. These findings contribute to a deeper understanding of the mechanisms through which Bodaboda can effectively alleviate poverty and guide future initiatives to harness their potential for social and economic development. The findings of this study underscore the positive association between bodaboda income and poverty alleviation. The coefficient β of 0.575, supported by a significant t-value and low p-value, highlights the potential of the bodaboda industry as an avenue for income generation and poverty reduction.

The coefficient β of 0.602, accompanied by a significant t-value and low p-value, highlights the bodaboda sector's significant role in economic growth and poverty reduction efforts. The findings from this study underscore the positive relationship between inclusive bodaboda ownership and poverty alleviation. The coefficient β of 0.324, supported by a significant t-value and low p-value, highlights the ownership structure's significant role in fostering economic empowerment and reducing poverty.

Recommendations

Bodaboda businesses and informal motorcycle taxis have emerged as potent drivers of economic activity, particularly in developing countries. Their potential to contribute to poverty alleviation is significant, given their ability to create jobs, improve market access, and foster entrepreneurship.

To policymakers and regulators

Governments should continue establishing and improving regulations and policies to formalize the bodaboda sector. This includes proper licensing, safety standards, and registration procedures. Formalization enhances the industry's credibility and ensures that operators and passengers are protected, encouraging more people to use the services.

Investing in training programs for bodaboda operators can lead to safer and more efficient transportation services. Bodaboda training should cover road safety, customer service,

financial literacy, and basic entrepreneurship skills. Well-trained bodaboda can provide better services, reduce accidents, and manage their income more effectively, thereby reducing poverty.

Lack of access to capital can hinder bodaboda operators from expanding their businesses. Governments and financial institutions can collaborate to provide affordable microloans or credit options tailored to bodaboda entrepreneurs. This financial support can enable Bodaboda to improve their ownership structure by having their motorcycles instead of those based on credit or loans. The loans will help to upgrade their vehicles, cover maintenance costs, and even diversify into other income-generating activities.

Area for further research

Further research and initiatives are needed to understand the underlying causes of this gender distribution and work towards a more balanced participation in the bodaboda industry.

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