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Zem Operators' Diminishing Returns, Financial Credit Access, and their Socioeconomic Wellbeing

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Abstract

Unregulated entry into the Zem industry in Cotonou, led to stiff competition, resulting in lower profits, in a context of limited access to finance for Zem operators. The purpose of this study was to examine the influence of access to finance on the Zem operators' socioeconomic wellbeing (SEW). The study was guided by Contestable Market, Mechanism Design, and State Intervention theories. The study employed a mixed-method research design. Primary data was collected using questionnaire administered to 420 randomly selected operators and semi-structured interview guides with 15 purposively selected resource persons. Simple linear regression was used to test the formulated null hypothesis while thematic analysis was used to analyze qualitative data. The study found that Zem marketfunctions as a contestable market asZems no longer earn sufficient profits and hence unable to save. Most of them are unable to neither sustain their operations nor reconvert to alternative viable ventures, while 75% were found to experience low SEW. The study found that access to finance had a strong positive and significant influence on operators' wellbeing ($\beta = .888$, t (394) = 26.736, p< 0.05). The study recommends government intervention to enable Zems undergo occupational reconversion in line with their skills.

Key Words: Access to financial credit, Economic reconversion, socioeconomic wellbeing, Zem operators, Competition

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I. Introduction

Over the past decade there has been a phenomenal growth in the use of motorcycles as a commercial public transport mode in developing countries especially in sub-Saharan Africa (Nzeadibe, 2021). Several studies have attributed the burgeoning growth to have been spurred by ease of entry into the business, low capital requirement, employment potential, and ability to navigate congested and poor quality roads with relative ease (Havugimana et al., 2020; Mbegu&Mjema, 2019). Zuure and Yiboe (2017) observe that, a decline in organized urban transport systems and traffic congestion due to poor town management has led to proliferation of motorcycle transport in major towns in West African countries such as Nigeria, Ghana, Benin, Senegal and others. However, Nzeadibe (2021) contend that the prevailing mass unemployment and economic hardships in developing countries are some of the major factors behind the spontaneous rapid spread of motorcycle commercial transport in both rural and urban centres. The use of motorcycles as transport mode has various appellations/parlances across the world. For instance, they are popularly referred as bodaboda in East Africa, Okada in Nigeria and Ghana, Zemidza in Togo, and Zemidjan in Benin.

This paper examines the influence of financial credit access on the motorcycle operators (also known as Zemidjan or Zem operators) wellbeing in Cotonou, Benin. Benin is a small French-speaking West African country with population of approximately 13 million, a per capita income of U.S. \$1428 and annual growth rate of 10.64 % in 2021 (World Bank, 2022). About 52 percent of its population lives in urban areas and is mostly concentrated on the southern parts of the country, near the sea and the biggest cities of Cotonou—the economic capital—and Porto-Novo—the political capital. The services sector was the primary driver of GDP growth with a share of GDP of 47 percent on average against 26 percent for both agriculture and industry (World Bank, 2021).

Just like other major towns in West Africa, Cotonou has witnessed a high influx of mostly unregulated motorcycle or Zem operators. According to Santos et al. (2022) Cotonou has more than 250,000 commercial transport motorcycles. Several studies concur that proliferation of the motorcycle commercial transport business has led to the upsurge of road accidents in especially urban areas (Oladipo, 2012; Starkey, 2016; Zuure&Yiboe, 2017). For instance, Maka (2016) as cited in Mbegu and Mjema (2019) observe that in 2016, Boda-Boda taxis were found to be the third cause of deaths after malaria and HIV, causing about 2994 deaths and 820 injuries in

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Tanzania. In Cotonou, Zems operators and their passengers have not only sustained severe debilitating injuries but some have also lost their lives. The motorcycles pervasive noise and air pollution due to greenhouse gas emissions is an environmental catastrophe in Cotonou. It was no wonder that Benzinger (2013) referred Cotonou as one of the most polluted cities on earth.

Nonetheless, Nzeadibe (2021) points to the fact that the Zem business has impacted on the Beninianeconomy significantly in providing employment for millions of unemployed skilled and unskilled people. Indeed, the researcher preliminary investigations in the current study, showed that many unemployed youths, retired civil servants, and some employed people have found gainful engagement in the commercial motorcycle business. Some Zem operators attest to have managed to build houses, educate their children and provide for their families from the proceeds of the business. Through their daily savings, some Zem operators were able to purchase tools and equipment in line with their vocational training such as carpentry, masonry, tailoring, welding, information technology, mechanics and others. Having been empowered with such equipment, some of them underwent economic reconversion in which Zem operators made alternative decisions and settled in other businesses that were more rewarding in terms of money and job satisfaction. Other operators have managed to save their daily earnings with savings and credit societies from which they get development loans. Additionally, some micro-finance firms welcomed the Zem operators to save with them on daily basis, after which they were considered for credit. It was through such loans that they were able to start other parallel income generating projects while some reconverted to some less risky and satisfying occupations of their choice. Also, some riders who relied on hiring motorcycles have managed to acquire theirs through the high earnings.

However, Nzeadibe (2021) argues that the bonanza that characterized the Zem business in Cotonou for some time is no more due to the fact that the number of Zem operators has reached saturation point. Indeed, groups of Zem operators are found every 100 metreswaiting and beckoning for potential customers. Nzeadibe (2021) further observes that even with escalating fuel prices, Zem operators have not been able to adjust their charges accordingly sincethe potential customer has an option of going to the next available price friendly operator. It has also been observed that Zem operators are mostly engaged in the morning and evening hours as people report to and from work but spend the best part of the day waiting for hard to get customers. It is during the idle time that some indulge in psychoactive substances such as alcohol, tramadol, and tobacco leading greater risk of causing accidents (Sopoh et al., 2021). Akwagyiram (2019) notes that most of operators in motorcycle commercial business are increasing becoming edgy due to financial instability and links the extreme violence occasionally exhibited by the operators on trivial issues to low socioeconomic wellbeing. Due to dwindling returns, they are not able to pay for maintenance or replace their depreciating machines. Thus, in case of a major crash causing extensive damage to the motorbike and injury to the rider, it means a total loss of livelihood. Park and Mercado Jr. (2016) associatewell-being with financial status and regards well-being as a measure of human life style which makes a positive assessment of their lives in terms of satisfaction, confidence, and emotions as one engages in daily activities.

Statement of the Problem

Despite the ever diminishing returns from the motorcycle commercial transport business in Cotonou, Benin,most of operators are still stuck in the business. Cotonou town is chocking with extremely high number of Zemidjans and the market is saturated. The reduced earnings is likely to have rendered many operators illegible for financial credit and thus jeopardizing their envisaged business prospects and wellbeing. Worse still, the thousands of able bodied skilled in various vocational trades but often idle during the off peak hours, are denying their country the much needed manpower for rapid economic development. The current study aimed at gathering both quantitative and qualitative data of the financial credit access and socioeconomic wellbeing of Zem operators in terms of income, savings, health status, and prospects of secure retirement. The subsequent analysis were done to ascertain the influence of financial credit access on the socioeconomic wellbeing of the motorcycle commercial transport operators in Cotonou, Benin. The study was done with a view of suggesting strategies of enabling the Zem operators to better their wellbeing by revamping their running business or through economic reconversion. However, both options require substantial financial investment. Further, the findings were expected provoke different stakeholders formulate strategies and policies which can enable some of the Zem operators diversify their source of income as well as reconvert and utilize their vocational training skills appropriately.

Several studies have been done on the use of motorcycles as means of public transportation in Sub Saharan Africa. Oladipo (2012) examined the development and impact of motorcycles as means of commercial transportation in Nigeria. A study done in Ghana by Zuure and Yiboe (2017), examined the factors that motivated the youth into the motorcycle commercial transport business, the socio-economic benefits of the business, and the effects of the business on the education of the youth in Ketu south municipality, Volta region of Ghana. Mbegu and Mjema (2019), traced the business trajectory of most of the 'bodaboda' riders in Tanzania from the modesty earnings to possible debilitating accident or death in what they referred as 'poverty cycle with

motorcycle taxis'. Glele-Ahanhanzo et al. (2021), analyzed the first-aid knowledge and practices of professional motorcyclists especially during post-crash care in the city of Cotonou in Benin while Sopoh et al. (2021) examined the association between the consumption of psychoactive substances (alcohol, tobacco, tramadol), and the occurrence of road crashes among motorcycle taxi drivers. Thus, none of these studies has done a critical analysis of the current phenomenon where Zem operators' business market has reached saturation point as well as embracing a possibility of reconversion as a way of exiting in pursuit of better socioeconomic wellbeing. Market saturation is a scenario where the market growth trajectory of a given product stagnates. It essentially means that the supply of the product becomes much higher than the demand for the same (https://www.masterclass.com/articles/market-saturation-guide).

II. Theoretical Framework

The study was anchored on three theories-the Contestable Market Theory (CMT) by William Baumol as the major proponent (Baumol, 1982), the Mechanism Design Theory (MDT) developed by the 2007 Nobel Prize winner Eric Maskin in 1960 (Dewatripont&Maskin, 1993), and the Intervention Theory as espoused by Adam Smith and John Meynard Keynes (Keynes, 1937). The contestable market theory is an economic concept stating that companies with few rivals behave in a competitive manner when the market they operate in has weak barriers to entry. According to contestable market theory, when access to technology is equal and barriers to entry are weak, low, or non-existent, there is a constant threat that new competitors will enter the marketplace and challenge the existing, well-established companies. The continuous risk of contestability weighs on the companies that already operate in the space, keeping them on their toes and influencing how they conduct business. Such an environment generally keeps prices low and prevents monopolies from forming. In other words, a contestable market is a market where companies can enter and leave freely with low sunk costs.

Baumol, Panzar& Willig (1982) summarize the characteristics of a contestable market as follows: freedom of entry or exit, that is there is no condition for firms trying to enter into the market; absence of irrecoverable incurred cost, that is sunken cost; presence of equal access to the same level of technology by both existing firms and new entrants; and that the new market entrants must be able to execute the hit and run tactics, that is free and costless market entry enables new entrants to make profits and exit the market before existing firms bring down their prices.

In case of Zem operators, they have the ease of entry and exit since one needsonly to have a motorcycle to start the business and on exit, the motorcycle can be used for personal errands or be sold to other entrants with ease. True to the contestable market theory, some employed civil servants and students joined the business when it was highly profitable but opted out when it became congested, operational costs went up, but transport prices stagnated. If the Zem industry is a contestable market, it means that pure economic profit will disappear on this market in the long term. This implies that any Zem operator who enters this market will earn just enough to cover his costs of human efforts, meals to re-energize, the depreciation of his motorbike, the fuel costs, and so on. In such a state, it is obvious that Zem operators will be in a vicious cycle and will hardly achieve any self and or family development as well as remain cut off from financial credit access. They will also have no savings as they face a bleak old age. At this juncture, the debate shifts to how an avenue for voluntary as well as circumstantial reconversion of Zem operators could be achieved in which financial credit access is crucial.

The theory of mechanism design provides a coherent framework for analyzing various mechanisms for allocating resources and considering the necessary incentives to make them work (Myerson, 2008). In essence, many economists are concerned with taking existing institutions or structures and trying to predict or explain the outcomes those institutions can generate. Nonetheless, mechanism design does just the opposite. While classical economics takes existing institutions and predicts the results they can generate, the design mechanism takes the opposite path, starting by identifying the results one would like to have and then working backwards to determine which institutions would be able to generate such results. Since the market fails to reward Zem operators effectively, the government could mediate to design and implement the structure best able to improve the socio-economic well-being of Zem operators, hence, the theory of state intervention.

Economic interventionism, sometimes also called state interventionism, is an economic policy position favouring government intervention in the market process with the intention of correcting market failures and promoting the general welfare of the people (Karagiannis, 2001). An economic intervention is an action taken by a government or international institution in a market economy in an effort to impact the economy beyond the basic regulation of fraud, enforcement of contracts, and provision of public goods and services. Thus, economic intervention can be aimed at a variety of political or economic objectives, such as promoting economic growth, increasing employment, raising wages, raising or reducing prices, promoting income equality, managing the money supply and interest rates, increasing profits, or addressing market failures. In case of Zem business, the government can intervene, guide, encourage, and create a revolving fund for research based economic reconversion.

III. Literature Review

Access to finance is the ability of enterprises or individuals to obtain financial services, including deposit, credit, insurance, payment, and other risk management services (Sharma & Singh, 2021). The unbanked or underbanked are those who involuntarily have no or only limited access to financial services. Tam (2022) averred that financial access promotes growth for enterprises through the provision of credit to both new and existing businesses. Further, financial access benefits the economy in general by accelerating economic growth, intensifying competition, as well as boosting demand for labour. Weida et al. (2020) posited that financial access lead to reduction in income inequality and poverty as it increases the incomes of those in the lower end of the income.

The individuals' well-being is identified as a measure of the quality of human life. Gamage et al. (2016) opined that the well-being of individuals and households in developing societies are mostly linked with financial background, job satisfactions, and health. In a similar view, Kesebir Diener (2008) linked well-being with financial status and regards well-being as a measure of human life style which makes a positive assessment of their lives in terms of satisfaction, confidence, and emotions as one engages in daily activities. Meantime, World Bank (2021) advanced that upsurge in income and the buying power due stable economic policies and progress, are the main determinants of well-being. Thumasi et al. (2022) explicated that wellbeing is a multidimensional concept that embraces economic and social dimensions and hence difficult to measure. The social well-being is an aspect of quality of life which reflects strong family and community relationships and having trust and cooperation among people in the community. Another aspect that affects well-being of an individual is the household saving. Economically, savings can be identified as postponement of current households' and individuals' needs and wants for future consumptions with additional benefits. Sharma and Singh (2022) observed that household saving and social capital have become key factors of socioeconomic development. This article examines access to financial credit as a predictor of the Zem operators' socioeconomic wellbeing in Cotonou, Benin. In this regard, the construct socioeconomic wellbeing was defined in terms of several sub-constructs namely, the respondents' income level, savings, health care, and pension. Further, respondents expressed their aspirations and life general outlook.

Studies have shown that whilefinancial access may lead to socioeconomic well-being of individuals and their families, lack of financial inclusion and literacy are the key factors that could undermine such developments (Atakora, 2016; Koomson et al., 2020; Twumasi, 2020). According to Kumari (2017), financially literate consumers are empowered with knowledge and understanding to manage their money in a manner to avoid unnecessary risk, debt and financial exclusion. Therefore, financial literacy entails making of sound decision concerning budgeting, spending, saving, and others. An individual or household's spending decision is a determinant of well-being since it not only affects their budget but also their social and emotional status (Barbic et al., 2018). Studies by Atakora (2016) and Koomson et al. (2020) found that promoting financial inclusion and literacy are critical factors in increasing rural household welfare in Ghana.

Financial inclusion is the ease with which financial services could be accessed, their availability and affordability (Park & Mercado, 2016). This implies that financially excluded individuals encounter constraints in accessing credit and savings, thereby getting deprived of the opportunity to effectively contribute to welfare improvement and poverty reduction. Financial inclusion therefore provides the mechanism that facilitate engagement of people in productive ventures such as health care, investment activities, education, and health care.

IV. Methodology

This study adopted a hybrid approach of conciliating the two extreme views of reality (objectivism and subjectivism) in adopting a pragmatic strategy. Thus, the study adopted a concurrent mixed methods approach where the researcher collected and analyzed both quantitative and qualitative data at the same time. According to Creswell and Plano Clark (2011), this approach enables one to obtain different but complementary data on the same topic to best understand the research problem. Specifically, the study adopted concurrent triangulation research design with an emphasis on validating quantitative data model. Thus, the researcher aimed at collecting both quantitative and qualitative data concurrently and with almost equal weight.

The study aimed at collecting data from Zem operators and key informants such as members of the Zemunion's board who were not among the operators surveyed, former Zem operators in Cotonou, and local and national government officials with economic and financial services responsibilities, including the social protection services.

Owing to the haphazard market entry by Zem operators, the Benin Ministry of transport did not have the actual number of Zem operators. However, between 2011and 2020, the Benin Ministry of transport had registered about 100,000 operators. Further, a study by Dos Santos et al. (2022) indicates that Cotonou has more than 250,000 commercial transport motorcycles. It can therefore, be stated with certainity that Cotonou has

more than 10,000 Zem operators. Using the Cochran formula which estimates the sample when population is 10000 and above:

 $n_o = Z^2 p q / e^2$, where

 $n_o = desired sample size$

Z = the standard normal deviation: 1.96 at a 95% level of confidence.

p =estimated population fraction with the desired characteristics, p is estimate at 0.5)

q = 1-p (population that have not the desired characteristic, q = 0.5)

e = the desired level of precision, for this study, e is set at 0.05 level

Consequently, the sample size calculated is given by: $n_0 = (1.96)^2 \times 0.5 \times 0.5 / (0.05)^2 = 384.16 \sim 384$

Due to circumstances beyond the researcher's control and sometimes unforeseen, not all participants may respond. According to Heo (2014), an expected attrition rate based on the reality on the ground may be considered in the determination of the sample size. The strategy consists in multiplying by a certain factor the calculated number 384 in the absence of attrition. Considering a possibility of 10% attrition, which is 38 respondents (10% of 384 = 38), the final sample size for this study is: n = 382 + 38 = 420. Having the list of Zem union members, the researcher used systematic sampling to get 420 Zem operators. Purposeful sampling was used to get 15 key informants.

The collected data was analyzed by the use of SPSS and Microsoft Excel software. Both descriptive and inferential statistics were used to analyze the data. Descriptive statistics such as frequency, percentages, means, and standard deviations were used together with tables, pie charts and bar graphs to describe the meaning of the analyzed data. The study null hypothesis was tested by use of simple linear regression analysis. Qualitative data generated from interviews and open ended questions were organized into broad themes for analysis and reported alongside the quantitative data.

V. Results and Discussion

5.1 Respondents' Socioeconomic and Demographic Characteristics

This part relates to the socio-demographic and economic characteristics of the respondents. The demographic information sought was gender, location, age, marital status, marital status, household size, working experience, professional qualifications, engagement in alternative economic activity, level of education, ownership of the motorcycle, possession of riding license, and the willingness/readiness of reconversion.

The study collected data from 420 Zem operators. In the end, 395 responses were deemed complete and satisfactory, giving a response rate of 94.0%. This was an excellent rate according to Creswell (2017) who consider a response rate of 70% or more to be sufficient for analysis. As the Zem operators vary in different aspects (age, localities where they grew up, work experience, and others), it was essential to describe the sample that provided the information for this study. Descriptive statistics were adopted to provide an understanding of the socio-economic and demographic characteristics of the sample of Zems, based on variables derived from the background information. Most of the Zem operators interviewed for this study were almost exclusively male (99.78%), with the presence of only one woman in the sample. The average age of the sample was (35) years, the youngest being 17 and the oldest was 67 years old. They had a level of education ranging from primary school to higher education (university), with seniority in the profession (work experience) ranging from a few months to 30 years. Over half of the Zem operators surveyed, 56%, grew up in rural areas, while the remaining 44% grew up in urban localities. The average daily income in the sector is between \$4 and \$5 for more than 10 hours of work - the minimum being about \$2 and the maximum about \$8.

The average number of dependents per operator was 6, the minimum being zero and the maximum sixteen. The reasons for choosing this activity varied. However, two main reasons prevailed, namely, on the one hand, the lack of alternatives in terms of employment opportunities, and on the other, the relative ease of entry into the industry and the relatively easy start-up of this activity. Concerning the perception of their profession, 34% of the Zemoperatus interviewed consider the Zem activity as a profession. It is a temporary activity for 40% of the respondents while waiting for a less risky job opportunity until they eventually become established operators. For the others, Zem's activity serves as a salary supplement and other reasons of lesser importance. The latter often constitute themselves as illegal operators. When asked whether they would consider leaving the Zem to engage in alternative activities, 84.6% expressed their willingness to reconvert. However, lack of alternatives keep them in the Zem occupation. Various reasons, ranging from the declining income to the risks associated with this occupation, underlie their intentions to change occupation.

5.2 Zem Operators' Access to Financial Credit and Socioeconomic Wellbeing

The objective of the study was to establish the influence of financial credit access on Zem operators' socioeconomic wellbeing. To accomplish the objective, a set of statements in form of five points Likert scale were posed to the respondents to indicate the extent to which they agreed or disagreed with them. The responses were coded such that strongly disagree (SD) was rated number 1 while strongly agree (SA) was rated number 5. Further the mean responses were computed such that: a mean response of above 3.0 was considered as 'agree' while a mean of below 3.0 was considered as 'disagree'. Table 1 shows the proportion of respondents, mean responses, and standard deviations.

Table 1: Zem Operators Access to Financial Credit and their Socio-Economic Wellbeing

Statement Statement		SA	A	N	D	SD	Mean	SD
1		24	101	21	173	76	2.6	1.3
I have collateral to access a bank loan	%	6.1	25.6	5.3	43.8	19.2		
I have information on the formalities for	f	58	86	45	100	106	2.7	1.1
accessing credit	%	14.7	21.8	11.4	25.3	26.8		
The Bank repayment interest rates	f	44	39	82	178	52	2.6	1.0
aremanageable for me	%	11.1	9.9	20.8	45.1	13.2		
I can cope with the loan repayment terms	f	29	53	92	112	109	2.5	1.2
Tean cope with the loan repayment terms	%	7.3	13.4	23.3	28.4	27.6		
Mybank deposit can secure me a substantial	f	35	84	18	130	128	2.4	0.9
amount of credit	%	21.0	21.3	4.6	32.9	20.3		
My savings with a SACCO can secure me a	f	50	98	20	103	124	2.6	1.2
substantial amount of loan	%	12.7	24.8	5.0	26.1	31.4		
It's easy for me to get credit to start another	f	47	85	48	107	108	2.6	1.1
business	%	11.9	21.5	12.1	27.1	27.3		
Grand Mean & Standard deviation							2.6	1.1

n = 395

As shown on Table 1, majority of Zem operators (63.0 %) indicated that they haveno collateral to access the bank loan. However, 31.7 % of them agreed while 5.3 % remained neutral. Further, over half of Zem operators constituting 52.1 % affirmed that they lack information on the formalities for accessing credit. Similarly, over half of zem operators (58.3 %) indicated that the bank repayment interest rates were not manageable for them. Majority of Zem operators agreed (56.0 %) that they could not cope with the loan repayment terms. However, a considerable number constituting 23.3 % were undecided while 20.7 % agreed that they could cope. Majority of Zem operators (53.2 %) disagreed that their bank deposit can secure them a substantial amount of credit. The statement that 'It is not easy for me to get credit to start another business was affirmed by 50.4 %, however, as high as 33.9 % of Zem operators were not decided. Overall, Zem operators in Cotonou have a low financial credit access (Mean = 2.6, SD = 1.1).

These findings show that only a very small number of Zem operators have information on the formalities for accessing credit, have managed to save in SACCOs, and have collateral to access bank loans. Thus, without savings and any collateral to secure bank loans, they can hardly expand their business or even undergo economic reconversion. This situation was best captured by the comments from key informants and Zem operators:

Financial places in Benin do not deal with Zem operators when it comes to credit. So, they are excluded from access to credit because there is no guarantee on how to get back their money. Of course, vast majority of Zems do not have any collateral to apply for loan. Don't forget Zems are from the poor cluster of the society, though some are unemployed university graduates. The basic deposit to be eligible for loan is higher for their savings. (Key Informant – 4)

I have no social network or big man to help me get a loan and finish my house. As Zem operators, we are not eligible for bank loans, so I have to look for additional or another job that could allow me to borrow. (Zem operator-137)

There is no institution today in Benin that wants to grant loans to Zems. It seems that in the past those who got a loan would flee once they got the money. So, Zems are considered dishonest, and they are banned from accessing financial credit. Anyway, with his yellow outfit, the Zem does not even dare to line up to ask for credit from a bank, the security guard will quickly ask him to kindly withdraw. However, it is very difficult to get by without a loan or other financial support. (Key informant -1)

There is only one bank in Cotonou according to our information that easily lends money. We call it PACO and this bank is located inGbedjromèdé. You first need a minimum deposit for three months, after which, you can apply for a loan for the acquisition of equipment, such as a house, motorbike, land, work tools, etc. (Key informant - 5)

From the foregoing, both key informants and Zem operators were candid that access to financial credit was an uphill task for Zem operators. The situation was attributed to both factual information and perceptions. The respondents' narrative seemed to suggest that they were financially excluded and disfranchised. However, one of the key informants, a finance officer with the government of Benin had a slightly different opinion, thus:

There have been attempts by NGOs to grant loans to Zems, but most of the beneficiaries were simply dishonest. The ball is in their court because it is up to them to provide the necessary guarantees and they will have access to loans like all citizens. No one is excluded from access to credit, not even Zems, but it is up to the individual to ensure that the conditions are met. When a passenger does not meet the conditions of payment for transport, do Zems allow this? The same applies to banks which are legally conducting in business. It would be too easy to say that Zems don't have access to credit. I honestly admit that access to credit is not easy for them. But that doesn't mean they are excluded either. Furthermore, access to credit alone is not enough to improve living standards. You have to know how to make good use of credit, which requires a certain level of ingenuity, initiative, creativity and good management. In the case of Zems, many are not well educated, so access to credit will need to be accompanied by technical guidance and assistance. (Key informant – 15)

Similarly, another key informant-a workers trade unionist expressed concern on the Zem business dwindling income amid rising health hazards:

The sector is really overloaded, and incomes keep falling as the number of operators increase. We have tried several times in vain to convert some of them to other activities so that the level of income can go up a little. We are concerned for the well-being of the Zems as well as that of the inhabitants of Cotonou because the city is subject to heavy air pollution, to which the Zems and their passengers are most exposed. (Key informant -11)

It was however noted that despite the many challenges some of the Zems had success stories and had no idea of exiting. One such positive Zem operator noted:

As for the question of the number of Zem operating in Cotonou, we appreciate it differently because the one who succeeds despite the challenges does not complain. Moreover, nobody complains about the number since we all continue to operate in the sector despite the stiff competition for the clients, we have accomplished personal development. (Key informant -8).

Similarly, a few Zem operators who managed to get funded and reconverted were proud to narrate their experience. One of them said:

With some money received from an NGO that initiated small projects for the poor, I was able to open my motorcycle mechanic workshop. I thank this NGO because it saved me from Zem business which was killing me little by little. Today I enjoy better rest, I have less stress and my health is much better. The Zem provided me with instant money until my motorcycle broke down and I couldn't even find the money to fix it. That was the true reality of Zem business. (Key informant -2)

It is clear from the foregoing narrations that it is rather difficult for Zem operators to secure credit from most of the banks and financial institutions in Benin. This implies that any operator who suffers a major financial or capital loss has no chance of re-joining the business. Zem operators have been indicted of having been dishonest and reneged on the agreements to repay loans. It is also evident that lack of savings and financial

credit access has been a major hindrance to economic reconversion. Nevertheless, some of those who managed to get credit or grants had success stories of how they improved their socioeconomic status and wellbeing. Contrary to the current study findings, Oladipo (2012) noted that Okada motorcycle business in Nigeria was relatively lucrative and thus, growing into a big industry. It could be argued that the situation that was captured by Oladipo (2012) study 10 years ago has since changed across most of the West African countries as the motorcycle commercial transport business became crowded. On the flipside, Oladipo (2012) decried of the fact the essential vocational courses critical for the country economic development ranging from bricklayers, plumbers, mechanics, electricians, surveyors, digital technologists to carpenters are lacking new entrants since most of the young people are keen to get quick money in Zem business.

The study findings show that financial inclusion is low among the Zem operators. This finding corroborates a report by the Global Findex Database 2021 (Demirguc-Kunt et al., 2021)which showed that despite Benin rapid economic growth, the bank account ownership among the adult population remains relatively low at 49.0 % as compared to Ghana (68.0 %), Gabon (66.0 %), Senegal (56.0 %), and Kenya (79.0 %). Demirguc-Kunt et al. (2021) posit that financial services such as payments, savings accounts, and credit are a cornerstone of development. Account holders, whether with a bank or regulated institution such as microfinance institution, a credit union, or a mobile money service provider, enable owners to safely and affordably store, send, and receive moneyfor everyday needs, plan for emergencies, and make productive investments for the future, such as in education, health, and businesses. People without an account, by contrast, must manage their money using informalmechanisms, including cash that may be less safe, less reliable, and more expensive than formal methods.

According to World Bank (2018), the financial sector in Benin is dominated by banks accounting for over 90 percent of total assets but with a persistent problems with nonperforming loans (NPLs). The banking sector is characterized byhigh NPLs with a ratio of 20.3 percent which is among the highest in West AfricaEconomic and Monetary Union (WAEMU) countries, the average being 13.5 percent. While banks' NPLs are among the highest in the WAEMU, the profitability indicators such as return on assets (ROA) and the return on equity (ROE) are also among theweakest in the WAEMU. Thus, banks extend credit to only a select customer base that are considered creditworthy. The World Bank report, therefore, corroborates both quantitative and qualitative findings of this study that access to financial credit is almost impossible to Zem operators. In this regard the United Nations Development Programme (UNDP, 2016) reiterates thatthe current situation calls for the development of NPL strategies at the banking sector level and a close monitoring by the authorities.

The other alternative to banks as a source of financial credit is the microfinance sector. According to AgenceNationale de supervision des SFDs du Bénin (ANSSFD 2017), microfinance sector in Benin plays a key role in financial inclusion of individuals as itreaches double the population of the banking sector with 2.2 million clients/members as at 2017. However, according to the National Microfinance Funds (FNM, 2017), most microfinance customers are urban based women. The Zem operators (predominantly men) are still shunned or regarded as high risk customers and therefore, only a small fraction enjoy financial services from MFIs in Cotonou.

This situation, therefore, calls for a multi-sectoral approach where a serious engagement involving the government, NGOs, multinational organizations, and financial bodies is preferable. This would promote the likelihood of an effective reconversion programme as well as improve the socio-economic wellbeing of those who continue with the motorbike transport business in Cotonou. Nonetheless, the urge to get access to credit has brought Zem operators together to form a savings and credit organization (SACCO). Other Zem operators have managed to use their land as collateral, a demonstration of how this business is valued.

5.3Respondents' Response on Socio-Economic Wellbeing

The study dependent variable was captured as the respondents' socioeconomic wellbeing (SEW). The reviewed theoretical and empirical literature was instrumental on how the construct socioeconomic wellbeing was defined in this study. Thus, the construct SEW was defined in terms of several sub-constructs namely, the respondents' income level, savings, health care, and pension. The researcher made an effort to measure SEW both quantitatively and qualitatively. In order to measure the SEW quantitatively, a set of statements in form of five points Likert scale were presented to the respondents. For each of the items, frequencies, percentages, mean and standard deviation were generated.

a) How much do you estimate your average monthly earnings are?

 Table 2

 Rating
 Earnings in (West African CFA franc)
 Earnings in USD (\$)
 f
 %

 1
 < 25000</td>
 < 37.82</td>
 169
 42.8

 2
 25001-50000
 37.823-75.64
 112
 28.4

	Total		395	Mean = 2.03, SD = 1.13
5	>100000	> 151.3	11	2.8
4	75001-100000	113.47-151.3	43	10.9
3	50001-75000	75.644-113.46	60	15.2

 \overline{NB} : Currency rate (USD into Fyfe): 1\$ = 661 Fcfa... As at 22-08-2022

Table 2 shows that a large number of the Zem operators constituting 42.8 % earn less than 2500 per month while 28.4 % earn between CFA25,000 and 50,000 (\$38 - \$76). This implies that the majority of Zem operators (71.2 %) earn very little that could hardly support them and their dependents. However, 15.2 % of the Zem operators indicated that they earn between 50,001 to 75,000 (\$76 - \$113) while 10.9 % had a monthly income of between 75001 and 100,000 (\$113 - \$151). Surprisingly, there were a few (2.8 %) Zem operators who earned more than 100,000 (\$151) per month. Some of the respondents expressed their sentiments as follows:

I don't want to end my life on a motorbike. Nine years are enough. Moreover, the job is no longer worthwhile. It's time to move on and start my cassava farm. (Respondent 79).

I'm just passionate about this job and I'm happy with the little I earn per day. I prefer to continue with Zem activity, as I hope that other operators willleave and the profit will then improve. (Respondent 49)

I have not been to school; I have no training or apprenticeship. Zem is my only area of qualification as it does not require any prior qualifications or skills. (Respondent 309)

The sentiments show that earnings from the Zem business are low but while some are planning to exit, some are there to stay having no plausible alternative

b) How easy is it for you to make ends meet with your daily or monthly income? Table 3

	Response	f	%
1	Very difficult	54	13.9
2	Difficult	186	47.1
3	Neutral	0	0.0
4	Easy	122	30.9
5	Very easy	33	8.4
	Total	395	Mean = 2.7 , SD = 1.3

As evident from Table 3, the question of how easy Zem operators made their ends meet in consideration of what they earned daily, or monthly income elicited varied reactions. A large section of respondents (47.0 %) found it difficult while 13.9 % found it very difficult to make their ends meet. Conversely, 30.9 % found it easy while 8.4 % found it very easy to make their ends meet using what they earned. One of the respondent wrote:

To be frank, this business is nowadays very difficult and frustrating...apart from the morning and evening hours, we spend most of the day waiting desperately for customers. We are so many of us at my designated waiting bay or stage such that to get a customer you have to alert all the time. Don't forget that we have freelance Zems who roam along the roads beckoning the same customers. To make the ends meet, it is often very difficult. (Respondent 32).

$\label{lem:continuous} \textbf{Zem operators'} \textbf{level of satisfaction with their activity in recent years:}$

1- Very decreasing (VI) 2- Decreasing (I) 3- Same (S) 4- Increasing (D) 5- Very increasing (VD) **Table 4**

Statement		1	2	3	4	5	Mean	S.D
The number of daily trips in my Zem	f	88	174	44	52	37	2.5	1.0
activity is	%	22.3	44.1	11.1	13.2	9.4		
The number of my regular customers	f	85	133	78	67	32	2.6	1.1
is	%	21.5	33.7	19.7	17.0	8.1		

The average price of the trip over the	f	20	33	212	97	33	3.2	1.0
last two years is	%	5.1	8.4	53.7	24.6	8.4		
The income from my Zem activity is	f	109	136	65	60	25	2.4	0.9
	%	27.6	34.4	16.4	15.2	6.3		

N = 395

Table 4 shows that most of the Zem operators (66.4 %) number of daily trips made was decreasing while 11.1 % found no change and only 22.6 % experienced an increasing number of trips. This implies that the competition for customers was becoming stiffer translating to decreasing income. Over half of Zem operators (55.2 %) indicated that the number of regular customers was on downward trend. Further, 53.7 %) of respondents indicated that the average price of the trip over the last two years remained the same while 33.0 % indicated that the price was increasing. Thus, a combination of decreasing number of trips and stagnant price per trip amid escalating operational overheads was indeed a blow to most of the Zem operators' revenue base. A majority of Zem operators (62.0 %) indicated that the income from their Zem activities was decreasing, 16.4 % indicated there was no change while 21.5 % experienced a rising trend. This shows that although they were conducting their business in the same town, there occurred income differentials. The level of the business satisfaction was best captured from one of the Zem operators comment, thus:

I am tired of working overtime and coming home late at night, I would like to have a daytime working mode just to be with my family, and also be able to go to the stadium with my friends to occasionally watch the matches of the squirrels -the national soccer team of Benin. (Respondent 34)

d)How easy or difficult is it to save money from your business income?

Table 5

	Response	f	%
1	Very difficult	43	10.9
2	Difficult	185	46.8
3	Neutral	70	17.7
4	Easy	67	17.0
5	Very easy	30	7.6
	Total	395	Mean = 2.6 , SD = 1.1

Table 5 shows that majority of Zem operators (57.7 %) found it difficult to save while 24.6 % of them found it easy. This implies that most of the Zem operators were 'hand to mouth' businesspersons. Also in a case of sickness or any kind of incapacitation would mean an economic disaster to the affected person. One of the respondent lamented:

Profit in the sector (Zem sector) is finished to the point that saving money is no longer an option. Now the government has decided to impose health insurance for all from next year. It won't be free, it's an extra expense that's coming. It's already a worry for me because my children's school fees increase every year as they move up in the school ladder. (Respondent 171)

e)Has the amount of your savings increased or decreased over time?

Table 6

	Response	f	%			
1	Highly decreased	90	22.8			
2	Moderately decreased	151	38.2			
3	Neutral	39	9.9			
4	Moderately increased	70	17.1			
5	Highly increased	45	11.4			
	Total	395	Mean = 2.6, SD = 1.1			

As evident from Table 6, 22.8 % of Zem operators considered the amount of their savings to have highly decreased over time while 38.2 % regarded the income to have moderately decreased. On the other hand, 17.7% of Zem operators found the income to have increased moderately while only 11.4 % indicated that the income had highly increased over time. Thus, the majority of Zem operators were not enthusiastic about the motorbike transport business industry growth trend.

Though most of my customers understand the need to pay more due to the increased price of fuel, they are not ready to increase the charges also complaining of the cost of living...so I end up charging the same amount, thus making no profit. I practically save nothing. (Respondent 320).

Nowadays saving from Zem business requires a lot of shrewdness and timing. For me, I only work in the morning and some few hours in the evening. During the day, I go for some other businesses. However, sometimes I rejoin the business when the town is experiencing crazy traffic jams and when some commercial vehicles go on strike. This way I have managed to build my savings portfolio. (Respondent 250).

f)Zems are always at the risk of suffering injuries or death from an accident, suffering from a respiratory diseases due to pollution and exposure to vagaries of weather, back pain and others.

Table 7

	Response	f	%
1	Strongly agree	229	58.0
2	Agree	75	19.0
3	Neutral	14	3.5
4	Disagree	61	15.4
5	Strongly Disagree	16	4.1
	Total	395	Mean = 1.9, SD = 1.1

Concerning health matters, Table 7 shows that 77.0 % of Zem operators agreed that they are exposed to respiratory diseases, and air pollution and that most have back pain arising from sitting on the motorbike for long periods of time. Such poor health conditions impacted negatively on their socio-economic well-being. A key informant observed:

... Apart from the recurrent accidents in Cotonou in which the Zems are often involved with injured and dead among them, air pollution in Cotonou is also a silent killer. And all this poses a real public health problem for our fellow citizens.... we are not saying that the Zems are the only ones responsible for the air pollution in Cotonou, but their plethoric number contributes greatly to it. In addition, they pay the heaviest price for this pollution because they are the most exposed to it. Studies indicate that the rate of respiratory disease is higher among them. (Key informant -11).

g)Over time, covering my health costs with income from my activity becomes:

Table 8

	Response	f	%
1	Very difficult	78	19.7
2	Difficult	159	40.3
3	Neutral	82	20.8
4	Easy	18	4.6
5	Very easy	58	14.7
	Total	395	Mean = 2.5 , SD = 1.0

As evident from Table 8, 60.0 % of Zem operators indicated that over time, covering their health costs with income from their business proceeds was becoming difficult. However, 19.3 % of the Zem operators found it easy to regarding the affordability of their health bills. One of the respondent commented:

When I joined this business 15 years ago, I could cater all the health bills comfortably. I saw no need of an insurance...nowadays when the earnings have gone down, my body if failing me badly. I went down with acute pneumonia, and the doctor advised to go slow on motorcycle commercial transport business and if possible stop it. The bill was so high that I had to fund raise. I felt ashamed but had no otherwise. (Respondent 162).

 $\boldsymbol{h})$ Through the Zem business, I am not confident of a secure retirement

Table 9

	Response	f	%
1	Strongly agree	229	58.0
2	Agree	75	19.0
3	Neutral	14	3.5
4	Disagree	61	15.4
5	Strongly Disagree	16	4.1
	Total	395	Mean = 1.9 , SD = 1.2

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Table 9 shows that majority of Zem operators (77.0%) were not confident of a secure retirement. This implied that most of the Zem operators were not able to invest for long term benefits and livelihood from their business earnings. The following comments exemplifies the different shades of Zems outlook of their old age life.

The way things are going, I am not sure of having any substantial investment by the time I call it quits in this business. My vision is already failing me and the dressing feels too heavy for me. I am a trained tailor and clothes designer and once I get an opening, I will say by to this back breaking work. (Respondent 58)

I do not have any other training apart from this one, I hope to remain with humble earnings until when riding the motorcycle will become practically impossible. I think being active also helps me to remain relatively healthy and young. (Respondent 182)

i) Generally, how would you rate the social standing of the Zem rider in your community?

	Table 10					
	Response	f	%			
1	Despised	38	9.6			
2	Looked down upon	188	47.6			
3	Not sure	109	27.6			
4	Respected	42	10.6			
5	Highly respected	18	4.6			
	Total	395	Mean = 2.5 , SD = 1.0			

As shown in Table 10, a large number of respondents (47.6%) felt that they are looked down upon by the members of their community while 9.6 % were the opinion that they are despised. Such a feeling can lead to low self-esteem, and other psychosocial problems. A considerable number of Zem operators constituting 27.6 % was however not sure while only 15.2 % felt that they were respected. One of the respondent wrote:

My children are not necessarily proud of the jobs that feed them, because of the social label attributed to Zem activity in Benin and particularly in Cotonou. (Respondent 213)

When I go to the National University where I studied, and because of my work clothes, I am no longer welcome in this environment that frustrates me a lot. (Respondent 308)

This finding corroborates Oladipo (2012) finding that Okada riders in were subject to social stigmatization as people generally look down on them as people who cannot get better jobs in the society. Overall, the Zem operators' response regarding their socioeconomic wellbeing had a mean of 2.5 and standard deviation of 1.1. This implied that on average, Zem operators in Cotonou socioeconomic wellbeing is low.

In a nutshell, the foregoing findings and discussions show that apart from the meagre income generated, Zem operators were faced with health hazards and great uncertainty regarding their business prospects and financial security in old age. Further, most of them leave from hand to mouth and with no substantial savings, they cannot secure financial credit from banks as well as microfinance institutions. They are also aware that in spite of the crucial task that they accomplish in transportation, the community do not hold them with high esteem. According to Gamage et al. (2016), socioeconomic wellbeing is linked to financial stability, job satisfaction, health, household savings, old age sense of security, and generally human life stylethat brings satisfaction, confidence, and positive emotions. As such it could be deduced that most of the Zem operates in Cotonou, Benin were experiencing low socioeconomic wellbeing.

The study findings on health hazards associated with motorcycle commercial transport operators have also been highlighted by several studies (Oladipo, 2012; Starkey, 2016; Mbegu&Mjema, 2019; Havugimana, 2020). In all these studies, the issue of accidents, pollution, crime, and general lawlessness have been documented. Additionally, the usefulness of the motorcycle as a vital transport means in developing countries has been well delineated. Further an attempt to suggest strategies to solve the motorcycle menace such as banning them from the urban centres put forward.

VI. Testing of Null Hypothesis

The null hypothesis of the study stated that: access to financial credit has no significant influence on Zem operators' socioeconomic wellbeing in Cotonou. In order to test the hypothesis, linear regression analysis was carried out at the .05 level of significance. The regression model capturing the hypothesized relationship is given as: $Y = \beta_0 + \beta X + \epsilon$, where: Y = Zem operators' socioeconomic wellbeing, X = Access to financial credit, $\beta_0 = Constant$, $\beta = Coefficient$ of X and

 ϵ = Error. The simple linear regression analysis was also aimed at showing the relationship between the variables as well as predicting the level of SEW given the level of financial credit access. The mean values of

financial credit access were regressed against the mean values of SEW. Tables 11, 12 and 13 below depict the findings.

Model Summary

Table 11: Model Summary (Objective 4)

Model	R	RSquare	Adjusted RSquare	Standard error of the estimate
1	.803	.645	.644	.63025

a. Predictors: (constant), Financial Credit Access

b. Dependent Variable: SEW

As evident from Table 4.16, there was a very strong correlation between the observed values of dependent variable and the values of dependent variable predicted by the simple linear regression model (R = .803). In other words, there was a strong correlation between the financial credit access and Zem operators' socioeconomic wellbeing. The coefficient of determination R^2 which is the proportion of variance in the dependent variable that can be explained by the independent variable was found to be .645.This implies that 64.5 % of variance in the Zemoperators' socioeconomic wellbeing was explained by influence of financial credit access. Further, to ascertain whether the model was a significant predictor of the outcome, the result in Table 12 was considered.

Model Fitness

Table 12: Model Significance (ANOVA)

	Model	Sum of Squares	df*	Mean Square	F	Sig.
1	Regression	283.933	1	283.933	714.811	.000
	Residual	156.105	393	.397		
	Total	440.038	394		•	

df*- degrees of freedom.

a. Dependent Variable: SEW

b. Predictors: (constant), Financial Credit Access

In reference to Table 12, the F-ratio in the ANOVA table, has a value of 714.811 and a p value of 0.000. Since p wasless than 0.05, it was deduced that the overall regression model was a good fit for the data. That is, the model, overall, resulted in a significantly good degree of prediction of the outcome variable. In other words, the regression model significantly predicts the Zem operators' socio-economic wellbeing, F (1, 393) = 714.811, p< 0.05.

In order to get the linear regression equation for the data, the unstandardized beta coefficient as shown in Table 13 was considered.

Table 4.13: Model Coefficient

Table 4.13. Woder Coefficient										
		Unstandardized Coefficients		Standardized	Coefficients					
		Beta	Std. Error	Beta	t	Sig.				
Model						value				
1	(Constant)	.214	.097	_	2.196	0.29				
	Access credit	.888	.033	.803	26.736	0.000				

Dependent variable: Socioeconomic Wellbeing

Table 13 reveals the relative contribution of Zem operators' financial credit access to their socioeconomic wellbeing expressed as beta weight. Assuming the error term ϵ to be zero and substituting the unstandardized coefficients β value, the estimated simple linear regression equation becomes: Y = .214 + .888X. Thus, when the financial credit access increases by one unit, the Zem operators' socio-economic wellbeing increases by 0.888 units.

The null hypothesis was tested by considering the t statistic (Table 13) that tests whether a β value is significantly different from zero (H₀: β =0). In reference to Table 13, the unstandardized beta value for credit access was found to be significantly greater than zero (β = .888, t (394) = 26.736, p< 0.05). Thus, the hypothesis was rejected, implying that access to financial credit had a statistically significant positive influence on the Zemoperators' socioeconomic wellbeing. In other words, the Zem operators' access to well-structured, tailor made, and feasible financial facility is a potent predictor of their socio-economic wellbeing. The study found

that the few Zem operators who had access to financial credit through various means were able to diversify their investments and were able to take extended time off from the Zem business. Indeed, this category of Zems exuded confidence and bright outlook and purpose in life. This finding resonates well with Kesebir& Diener (2008) assertion that well-being is a function of financial status and regards well-being as a measure of human life style which makes a positive assessment of their lives in terms of satisfaction, confidence, and emotions as one engages in daily activities.

VII. Conclusion and Recommendations

From the foregoing, this study has established and concurred with other studies that commercial motorcycle business has provided employment to many people of all ages directly as taxi operators and indirectly such as sales, repairs, and maintenance. Motorcycles have eased transport difficulties in towns notably during traffic jams as well as taking people to areas previously impregnable by conventional means of transportation. This study has however, gone further and examined the new phenomenon where the commercial motorcycle business market in Cotonou has become saturated and most of the operators socioeconomic wellbeing is in jeopardy.

Buoyed by the quick made money in a contestable market and lack of financial credit access, thousands of men have been trapped in a vicious cycle of hand to mouth business. Further, working in highly polluted, accident prone environment with diminishing returns, has taken tall on their socioeconomic wellbeing. The study has also established that financial credit access has a positive significance influence on an individual socioeconomic wellbeing. In view of this situation, this study has come up with several strategies and recommendations.

- i) The Government of Benin should embrace the Zem business as a viable economic entity but regulate through registration and enforcement of the road safety requirements and rules
- ii) The government in conjunction with NGOs and other world bodies should establish an economic restructuring programme targeting the Zem industry in which a revolving long term fund can assist Zem operators to start skill oriented enterprises. In so doing, the earlier entrants can pave way for the new entrants and the business remains profitable.
- iii) The Government in conjunction with Zem unions and other stakeholders to offer free financial literacy education while encouraging self-regulation measures.

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