

ANALYTICAL STUDY OF THE FACTORS AFFECTING INFORMAL DOMESTIC TRADE IN URBAN AREAS OF RWANDA: CASE OF STREET VENDORS IN KIGALI CITY

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Abstract: Existing literature shows that street vendors are believed to sale at the cheapest price when compared to other traders selling in formally recognized places. However, they face a lot of challenges as they sale within unregulated and non-conducive environment. The general objective of the study is to explore and analyze the factors affecting street vending in urban centers and cities of Rwanda. The study targeted 3 specific objectives: Examining demographic factors affecting street vending business in Kigali city, Analyzing socio-economic factors affecting street vending in Kigali city and exploring socio-cultural factors affecting street vending business in Kigali city. Street vendors operating in Kigali city were the targeted population for this study. A scientific formula was used to determine the sample size and showed a sample size of 246 vendors. To reach the whole number of respondents, snowball sampling technique was used whereby a small number of vendors was selected and got convinced on research objectives and then were required to convince their colleagues. The same exercise was repeated until the required number to complete the sample size was obtained. During data collection, relevant designed questionnaire was used whereby the respondent was answering to relevant questions to the interviewer within a face to face interview. In order to assess the feasibility of the study and reliability of the questionnaire, a pilot test was conducted. SPSS and Excel software were used to perform data analysis task and regression analysis was used to examine the relationship between the study variables.

Keywords: Street vendor, Informal sector, Informal trade, Domestic trade, Urbanization.

I. INTRODUCTION

Street vendors have been in existence since ancient times (Sharit & Debdulal, 2014). In all civilizations, ancient and medieval, one reads accounts of travelling merchants who not only sold their wares in the town by going from house to house but they also traded in neighboring countries. In modern times we find that street vendors are rarely treated with the same measure of dignity and tolerance. They are targeted by municipalities and police in the urban areas as illegal traders, the urban middle class complains constantly on how these vendors make urban life a living hell as they block pavements, create traffic problem and also engage in anti-social activities (though more often than not, the same representatives of middle class prefer to buy from street vendors as the goods they sell are cheap though the quality is as good as those in the overpriced departmental stores and shopping malls). The current study was undertaken for academic purposes to explore and examine the root factors affecting informal domestic trade in urban centers and cities of Rwanda with a special focus on street vending. The findings will then leave a guiding challenge and a food for thoughts to street vending fighters and in this sense, they will be useful in enabling policy makers and local authorities of the places where street vending is done to well understand the root factors of street vending problem and then use such information in framing relevant policies or establishing rules and regulations that accurately address the issue taking into consideration on its underlying factors.

II. LITERATURE REVIEW

Demographic factors and street vending:

Francie Lund (1998) "study on Women Street Vendors in Urban South Africa: A Synthesis of Selected Research Findings" is based on the women street vendors at Johannesburg CBD and Durban Metropolitan. The study revealed that the level of education among the street vendors in both the cities was very low. Gender disparity was found in the level of education. When compared to men, more number of women street vendors did not have any educational training. It was also found that in Johannesburg, migrant street vendors had higher level of education.

Sumitha Sarkar and Manjari Srivastava (2009)'s study on "Women Hawkers in New Economic Environment: A Case of Navi Mumbai" was based on 108 women street vendors on the roads/footpaths in Vashi and Belapur nodes. The study analysed the working status of women engaged in micro-entrepreneurship, working as hawkers/ vendors in the areas of Navi Mumbai. It found poor socio-economic status and poor literacy level among the vendors. They did not have any collective association to voice their rights. They have not got any support from the government. They were vulnerable towards all sorts of harassment. They were subject to payment of illegal rent or money for protection to local officials, police and goons. There were incidents of sexual exploitation. The study revealed that women vendors suffered from various kinds of ailments due to hard labour, ignorance and malnutrition. About 82% suffered from gynaecological problems like miscarriage, infections, excessive bleeding, and irregular menstruation. About 50% had joint pains and body aches. About 77% had gastritis and ulcer.

Socio-economic factors and street vending:

Jonathan Shapiro Anjaria (2006), in his paper on "Street Hawkers and Public Space in Mumbai" studied the life of street vendors in Mumbai. It was revealed that in the central districts of Mumbai, many former mill workers and their families have been compelled to take up hawking. Many street hawkers were migrants from rural areas. It was because of ease of entry and the limited requirement of capital, they have entered street vending. It was also because of lack of other employment opportunities, individuals have taken up street vending. Many hawkers make a regular payment to the police and the BMC in the form of money or in kind.

Debdul Saha (2008), in his "Conditions of Decent Working Life of Street Vendors in Mumbai" studied the indebtedness of street vendors within the framework of "decent work". The study was based on 200 samples from locations such as Dharavi, Jogeswari, Kandival, Powai and Ville Parle in Mumbai. It found that street vendors borrowed mainly for social security (44.72%). About 51.39% borrowed an amount of 1000 to 20000 and 20.83% an amount of 40000 to 60000. Among them, 30.56% borrowed money to meet family health care and medicine and 25% borrowed to meet their child education needs. About 38.89% paid 2 times multiple of the principal amount and 36.11% paid only one time multiple of the principal amount.

Socio-cultural factors and street vending:

India Centre for Human Rights and Law (2003) studied the problems of blind street vendors at railway stations in Mumbai through its paper on "Disability and Right to Employment". The study based on 315 blind street vendors revealed that majority of them were blind from their childhood and most of them were educated up to 9th standard. About 68.25% were married and 60% of them earned an amount of 51 to 100 daily. Most of them were more than 10 years in trade and experienced a fall in income during monsoon due to unfavourable weather. Many sold several goods according to season. Most of them preferred to sell in local trains and rail over bridges. About 56.83% were aware of government schemes and its accessibility. Most of them have chosen this employment option as they had no other job available in private and public sector. They were subject to all kinds of harassment.

Chakravarty and Canet (1996)'s study on "Street Foods in Calcutta" was based on 911 consumers of street foods and 300 street food vendors in four locations in Kolkata namely the College Square, the Sealdah area, Dalhousie Square and the Gariahat shopping and residential area. The study found that about 33% of the consumers purchased foods on a daily basis and spent 40 to 400 per month on street foods. It revealed that a sizeable number of vendors were commuters. They often carried their wares by train, travelling distances of 25 to 30 kilometers on a daily basis. Their daily sales amounted 1500 to 4000. Vendors worked only 10 months in a year by obtaining an income of `25000 per year. The study examined various hazards to foods safety. The food contained bright non-permitted colours and contained heavy metals. The water used for drinking, cooking, washing of fruits and vegetables, dishwashing, hand washing, etc. was found to be contaminated.

Regulatory factors and street vending:

Kamala Sankaran and RoopaMadhav (2011), in their paper on “Informal Economy: Law and Policy Demands” made an overview of regulatory frameworks impacting selected occupational groups in India. They made a study on regulatory framework among forest workers, fish workers, waste pickers, street vendors and domestic workers. Insight on street vendors brought to light that there was no effective protection of wages or working conditions for them. State Police Acts and State Laws determined access to urban land and water.

Randhir Kumar (2012), in his paper on “The Regularization of Street Vending in Bhubaneswar, India: A Policy Model” brought out how a policy model for street vendors was successfully framed and implemented in Bhubaneswar. The paper analyzed its critical success factors. The paper revealed that all the relevant stakeholders were brought together for joint planning and implementation of the policy. The success factors identified were “the political will among authorities to acknowledge vending as a legitimate profession and address the concerns of the vendors” able leadership from vendors “side in organizing movements and negotiating with authorities” consensus building and allowing multiple voices in debates and “joint survey for identifying space and beneficiaries” and “financing the construction”. These helped vendors in gaining an opportunity for sustainable source of livelihood.

Conceptual framework:

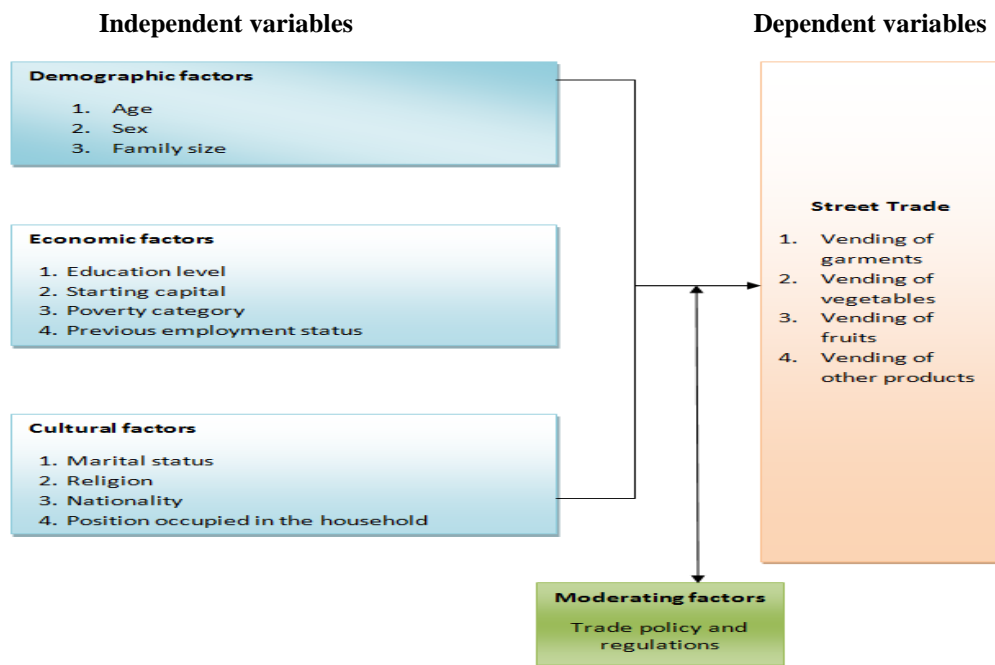


Figure 1: Conceptual framework

III. METHODOLOGY

A case study was used for this study to reach its objectives. Kigali city was selected to be a case study whereby street vendors operating within 3 districts making up Kigali city namely Nyarugenge, Gasabo and Kicukiro districts were the targeted population. The sampling frame was estimated to be 15,174 vendors and the following formula was used to determine the sample size:

$$ME = z \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}}$$

Where:

- ME : Margin of error
- \hat{p} is our prior judgment of the correct value of p
- z is the z-score, e.g. 1.645 for a 99% confidence interval, 1.96 for a 95% confidence interval, 2.58 for a 99% confidence interval etc.
- n is the sample size (to be found)

\hat{p} Was estimated to be 0.8 as the probability of meeting a street vendor in the city was judgmentally estimated to be high. Therefore, given available information and considering a confidence interval of 95% we find that: $\hat{p}=0.8$; $z=1.96$; $ME=0.05$; $1-\hat{p}=0.2$. Then, by replacing this information within above formula we get: $(0.05)^2 = (1.96)^2 \frac{0.8*0.2}{n} \equiv 0.0025n = 3.8416*0.16$.

$$n = \frac{0.614656}{0.0025} = 245.8624 \cong 246 \text{ Vendors}$$

Given the nature of the problem being investigated, Snowball sampling technique was used. To collect data, a questionnaire was designed and information was obtained through a face to face-Interview with respondents. A pilot test was conducted before undertaking entire data collection process for testing the reliability and validity of the designed questionnaire. SPSS and Ms Excel were used for data entry and analysis and then, descriptive analysis regression model were used to depict the situation and analyze the relationship between variables of interest.

IV. RESEARCH FINDINGS

1) *Demographic factor and street vending:*

The study examined effect of demographic factors on street vending. Demographic variables examined under this component are: age, sex and family size. Regarding age; the findings revealed a negative, but non-deterministic, relationship between street vending and age. Simple linear regression was used to find out linear relationship between age and street vending whereby the resulting equation came out with a negative slope proving existence of negative linear relationship between two variables. However, R^2 was found to be as small as 0.1208; something implying that only 12.08% of variations in the number of street vendors are attributed to changes in age of respondents. Therefore, despite existence of negative relationship between two variables proven by the least squares line, R^2 did not support it enough. The findings also revealed that people aged 25 to 40 are most frequent in street vending compared to others. Regarding sex, the findings showed that the majority of street vendors are females which represent 61.8% of respondents compared to males that represent 38.2%. By family size, the findings showed that families with 3 to 5 members are the most frequent in street vending. Also, the least squares line came out with a negative slope but R^2 was as small as 0.2704, something implying that only 27.04% of variations in number of street vendors are associated with variations in family size. Therefore, having a big family size has little probability to influence somebody in getting engaged in street vending.

2) *Socio-economic factors and street vending:*

The study examined the effect of socio-economic factors on street vending. The variables investigated in this regard include: time in street vending, amount of starting capital, completed education level, number of dependents in a household, source of motivating information, poverty category and previous employment status. About time elapsed since entrance in street vending, the findings revealed that the majority of street vendors entered street vending since more than one year ago. The findings revealed that 33.7% have been in street vending since 1 to 3 years ago, 26.0% since 3-5 years ago and 4.9% since more than 7 years ago. The findings revealed that the majority of street vendors are not new comers as only 17.1% entered within less than one year prior to the research.

Regarding amount of starting capital, the findings proved existence of a negative relationship between street vending and amount of starting capital. In this regard, simple linear regression was used to depict linear relationship between two variables and the resulting equation came out with a negative slope implying a negative relationship between the two variables. High amount of starting capital corresponds to low number of street vendors, something which shows that those with low financial capacity are likely to get engaged in street vending. This conclusion was supported by R^2 which was 0.9581 implying that about 95.81% of the variations in number of street vendors are due to change in amount of starting capital. 41.5% started street vending with less than 10,000 Rwf while only 2.4% started with an amount greater than 50,000 Rwf.

With regard to education level, the findings revealed that high level of education corresponds to low number of street vendors, something which is justified by existence of a negative relationship between street vending and completed education level. Simple linear regression was used to find out the linear relationship between the two variables and the resulting equation came out with a negative slope proving a negative relationship between the two. However, R^2 did not support enough this conclusion as it showed that only 1.66% of the variations in the number of street vendors are attributed to changes in education level. About 98% of the variations in the number of street vendors are explained by other variables not included in the model and this makes observed relationship to be not enough deterministic.

About poverty categories, the findings revealed an inverse relationship between the number of street vendors and their respective poverty categories. 32.9% of respondents reported to be in the first category while none of them reported to be in the fourth category. Indeed, linear regression was used and the resulting equation came out with a negative slope proving existence of a negative relationship between street vending and poverty category. R^2 supported this conclusion as it showed that about 91% of the variations in the number of street vendors are explained by changes in poverty categories.

Regarding the number of dependents in the family, the findings revealed that families with 3 dependents are more frequent in street vending than others. The least squares line proved existence of a slightly negative relationship between the two variables but R^2 did not support this conclusion significantly as it showed that only about 0.5% of the variation in the number of street vendors could be explained by changes in the number of dependents living in a vendor's household. About 99.5% of the variations in the number of street vendors are explained by other variables not included in the model and this makes a negative relationship to be not significantly deterministic. The implication of this is that, having a family with a big number of dependents does not induce high probability of being engaged in street vending.

With regard to previous employment status, the findings revealed that a big proportion of street vendors were previously unemployed (45.5%) or working as house maid (20.7%). The number of vendors who reported to have been previously working for the government is very small (0.4%) while those who reported to have been previously working in private sectors represent 15.9%.

Regarding the source of motivating information, the findings revealed that 61.8% of respondents reported to have got information by personal observation while 31.7% reported to have been motivated by other street vendors. 4.5% got information from their relatives while 2.0% got information from other sources.

The study investigated other socio-economic factors affecting street vending including housing arrangement, reason for undertaking street vending and reason for not leaving street vending whereby the findings revealed that 87.4% of respondents reported to be living in rented houses and 6.9% live in borrowed houses. Only 3.7% reported to be living in their own houses while 1.6% reported to be sleeping on street. The findings also revealed that 3 top reasons for undertaking street vending are: seeking ways to afford life in the city (98.0%); lack of other job (85.8%); no other alternative for life (82.5%). The top 3 reasons for not leaving street vending were reported to be: poverty (96.7%); no other source of income (94.7%); no enough capital to enter formal business (93.9%). Respondents were asked whether they are happy with street vending and only 0.4% responded by "Yes".

3) Socio-cultural factors and street vending:

The study examined socio-cultural factors affecting street vending. The main variables examined are: marital status, religion, nationality and position occupied in the family. With regard to marital status, the findings revealed a big proportion of respondents were married (54.5%). 30.9% reported to be single, 2.4% divorced and 11.4% reported to be separated. Regarding religion, a big proportion of respondents reported to be having no religion (27.2%). Catholic were 26.4%, Protestants 24.0%, Adventists 6.9%, Muslims 4.1%, and traditional religion was reported to be 2.8%. Regarding nationality, 97.2% reported to be Rwandese while 2.8% reported to be foreigners. With regard to position occupied in the family, 69.9% reported to be household heads while 30.1% reported to be normal household members.

4) Moderating factors:

The study investigated trade regulations and working environment as moderating factors of street vending and the findings revealed that street vendors work within unsafe environment. 99.6% of respondents reported to be aware of penalties imposed against street vending but only 1.2% reported to agree with those penalties. 94.3% reported to have been ever chased by security staff, 81.7% reported that their products had been damaged by sun or rain, 80.1% reported to have ever sold until midnight, 76.8% ever paid a bribe to security staff, 58.9% were caught by the rain on job, and 48.4% reported that their products had been ever stolen. The findings revealed that the life of street vendors is exposed to risks as 22.8% of respondents reported to have got injury due to street vending, 27.6% were beaten while on street, and 35.4% got sick due to street vending while only 30.5% reported to have a medical insurance. Street vendors are subject to unexpected losses as 28.9% reported that their products were ever retained by local authorities while 29.3% paid fines because of street vending. However, despite a poor working environment, some street vendors still have intention to keep vending on street. The study investigated respondents' intention to leave street vending and the findings revealed that 4.9% had no intention to leave street vending while 24.8% reported to be undecided. 20.7% intended to leave soon and 49.6% intended to leave but later. Respondents were asked to compare their life status before and after entering street vending and only 2.0% reported their life status to be better before entering street vending than after. 49.2% reported their life status to be better after entering street vending than before while 48.8% were undecided.

V. CONCLUSION AND RECOMMENDATIONS

A. Conclusion:

The research analyzed the root factors affecting street vending in urban areas focusing on demographic factors, socio economic factors and socio-cultural factors. Among demographic factors, age and sex were found to have significant relationship with street trade while family size does not. The implication of this is that policy makers and other individuals intending to address the issue of street vendors should cater for life requirements of people taking into consideration their age groups especially targeting those whose age group is most frequent in street vending (25-40 years) and also paying attention to females as the findings revealed that they are more frequent in street trade (61.8%) than males. Reasons provided by respondents for undertaking and not leaving street vending should be matched with significant demographic factors to come up with a suitable solution in this regard. Among socio-economic factors; starting capital, completed level of education, poverty categories and unemployment were proven to have a significant relationship with street vending in this research. This implies that, for the sake of addressing the issue of street vending, much attention should be put on these variables taking into consideration matching reasons reported for undertaking and not leaving street vending. Regarding socio-cultural factors, marital status and position occupied in the family were reported to have significant effect on street vending. This calls for the need to take into consideration these variables with special target to household head and married people when dealing with street vending issue.

B. Recommendations for further researches:

The study revealed a slightly negative relationship between family size and street vending through regression line, but R^2 showed little variations in the number of street vendors attributed to change in family size. Further researches should deeply investigate this and find out a clear relationship between the two variables.

On previous employment status, 15.9% reported to have been being employed in private sector while 20.7% reported to have been previously house maid. Further researches should investigate the working environment and condition in private sectors and household and their statistical impact on informal domestic trade.

About regulations, the findings revealed that 99.6% reported to be aware of penalties imposed against street vending but only 1.2% of respondents reported to agree with them. Further researches should base on this and investigate effectiveness of rules regulating informal domestic trade with regard to personal feelings of community members about them.

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