DRIVERS OF INFORMAL SECTOR PARTICIPATION OF SMALL AND MEDIUM ENTERPRISE IN GHANA*

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The informal sector of Ghana has been growing amidst the recent economic development in this country. The study investigated the drivers of informal sector participation by SMEs in Ghana and made use of a Chi-square statistical methodology to analyze the drivers of SME participation in the informal sector of Ghana. Analyses from the study showed that gender can be deemed as a driver for SME participation in the informal sector of Ghana. Gender was significant at 0.012 with registration of business enterprise and 0.055 with tax obligation of respondents. The educational level of SME operators had an impact on registration and tax obligation and therefore can be deemed as a driver of SME participation in the informal sector of Ghana. However, the level of education was insignificant to registration and tax obligation but had a strong correlation to these variables. The study also showed that women are more likely to participate in the informal sector of Ghana as compared to men and also that there is a high tendency of not paying tax among SME operators in the informal sector of Ghana. A very low educational level among SME participants was recorded with over 60% of the respondents not having any formal education. Based on the findings of the study, a country-wide research can be done to ascertain the socio-economic determinants of informal sector participation in Ghana. Also, the study highly recommends policies that can harness the usefulness of informal sector.

business, economic development, tax, education, economy, registration

INTRODUCTION

Interest in the role SMEs play in the development process continues to be in the forefront of policy debates in most countries. Governments at all levels have undertaken initiatives to promote the growth of SMEs (C a r s a m e r, 2009). Empirical evidence suggests that in the United Kingdom, and internationally, there has been a general increase in the number of smaller enterprises since the 1980's and most OECD (Organization for Economic Cooperation and Development) countries follow this pattern. Available data in Ghana from the Registrar General Department suggests that 90% of companies registered are micro, small, and medium enterprises. This target group has been identified as the catalyst for the economic growth of the country as they are a major source of income and employment. SMEs are also noted to contribute 70% to Ghana's GDP and therefore have a crucial role in stimulating growth, generating employment, and contributing to poverty alleviation, given their economic weight in African countries (A r y e e t e y, 2001).

Considering the enormous contribution and importance of SMEs in the development of developed and developing economies, these business enterprises can be found in what is referred to as a formal and informal sector of an economy with the later associated with developing economies. M i n t a h (2014)

notes that SMEs in developed economies have contributed significantly to the development of these economies through revenue generation from taxes and other sources such as employment generation and income for individual households. But this cannot be said about the developing economies due to large informal sectors which are not well developed and as such their potential is not fully utilized. In Ghana, the problem of the informal sector does not differ from that in any other developing country and as such the 2014 statistics from the Ghana Statistical Service (G S S , 2014) shows that about 69.7% of the labour force is employed in the informal sector. More so, the informal sector is noted to have contributed 22% to total GDP of Ghana in 2003 (I S S E R , 2008). These figures show how significant the informal sector and as such SMEs in the informal sector can be a tool for poverty alleviation as well as economic growth in Ghana and most of the developing economies.

Informality in Ghana has been increasing in recent times and 80% of the working population are employed in the informal sector of Ghana which is made up of predominantly SMEs characterized by bad working conditions, low wages, uncertain working relationships, and high income insecurity. As noted above, SMEs have the potential for poverty alleviation as well as economic development but with the increasing growth of the informal sector in Ghana, which is seen as a potential hindrance to the economic development, it is of outer most importance to find out what drives SMEs to participate in the informal sector of Ghana.

The research will therefore answer the following questions: What factors influence SME participation in the informal sector of Ghana? Can educational level and gender affect SME participation in the informal sector of Ghana? Answering these questions will give an insight on the characteristics of SMEs in Ghana and also understand the factors contributing to the increasing participation of SMEs in the informal sector of Ghana. To answer the above questions, the following hypotheses were set: (1) gender impacts the registration of SMEs, (2) gender impacts the tax obligation of SMEs, (3) education has an impact on SME registration, (4) education has an impact on tax obligation.

Concept of informality

The concept of informality is difficult to define. As stated by S c h n e i d e r , (2000), the informal economy is subjected to constant transformations in tax systems as well as in attitudes of societies. F e i g e (2003) defined informality as 'activities that contribute to the GDP but unregistered'. H a r t (1970) was the first to use the word informal sector to describe those business enterprises that work without government regulations in an economy when he conducted a research on third world countries.

At present, there exist three schools of thought, which compete on the explanation of the character of informal economy. While dualists explain the informality of economies by lack of employment due to low economic expansion as well as growth of population and see the informal activities as marginal economic processes including mostly poor and other marginalised groups (I L O , 1972), structuralism school of thought sees the informality as a subordinated by-product of existence of large corporations, producing reduction of labour costs. The two concepts are expected to co-exist independently on each other (P o r t e s et al., 1989). On the other hand, legalists represented by H. De Soto consider the decision of microenterprises and SMEs to enter informality as a rational decision reducing their costs and obstacles related to complicated formality (De Soto, 1989).

Participation in the informal sector

An individual's decision to participate in the informal sector as according to R e n o o y (1990) and stated by G e r x h a n i , v a n d e W e r f h o r s t (1990) is based on two: the 'structural' and 'opportunity' factors. The structural factors consist of financial pressure, socio-psychological pressure, and (formal) institutional constraints. The opportunity factors consist of individual background: skills, education, contacts, and living situation; or non-individual components: environment, cultural tradition, values and standards, and geographical factors. The authors suggest that these factors explain why different sorts of informal economies exist. For example, in an atmosphere in which the government loses the trust of the population and people no longer feel that government supports them, a step into the twilight economy will be taken much more easily (G e r x h a n i , v a n d e W e r f h o r s t , 1990).

Many authors in this research area have used different methods to determine the factors that drive informal sector participation. A n g e l - U r d i n o l a , T a n a b e (2012) working on micro-determinants of informal employment in the Middle East and North African regions found out that the size of the public sector and that of the agriculture sector determines participation in the informal sector in their region of study (A n g e l - U r d i n o l a , T a n a b e , 2012). The study revealed that countries with a relatively larger agricultural sector experience high informality, while low informality is experienced in urbanised countries (A n g e l - U r d i n o l a , T a n a b e , 2012). In Ghana, M a f r o (2009) reported that rural informal participation is high especially within the timber sector which has an adverse effect on agriculture. The author argued that most farmers prefer to trade in the informal sector due to ease of sales which bring about higher profit margins. Ghana's economy is predominantly agriculture but with the increased participation in the

informal sector as a result of high rural urban migration, the agricultural sector has been on a declining rate (D i a o , 2010).

This implies that with an increasing agricultural growth informality will be reduced. Also, age was found as a strong determinant of informal sector participation. The study also showed that informality decreases with increasing age and as such informality is predominant fall between 15–24 years (A n g e l - U r d i n o l a , T a n a b e , 2012). Moreover, Magidu (2010) found out that individuals of lower ages are more likely to participate in the informal sector of Uganda. The study proved a strong negative effect on the participation for age 55 and above which implies that the informal sector participation is predominantly the youth of the country (M a g i d u , 2010). More so, H e i n t z (2012) in his work 'Why Do People Work in Informal Employment' found out that gender, access to credit, alternative sources of employment and education are the most predominant factors that influence an individual's choice to participate in the informal sector of Ghana.

Another predominant determinant of the informal sector participation is the factor of educational level. Educational attainment was found to have a strong relationship with informal sector participation (M a g i d u , 2010). W a m u t h e n y a (2010), using a multinomial logit model and economic theory and studying the labour market of Kenya, concluded that educational attainment had a significant impact on the informal sector participation in Kenya (W a m u t h e n y a , 2010). However, the study also revealed that, despite the improved education of female, high female informal participation is recorded in Kenya (W a m u t h e n y a , 2010). This suggests that gender of an individual could be seen as a determinant of informal sector participation. D o g r u l (2012) confirmed the assertion of female participation in the informal sector of Turkey. The author suggested that most women are likely to enter the informal sector due to the unfair imbalanced employment opportunity for females as compared to males (D o g r u l , 2012). W a m u t h e n y a (2010) also found a strong correlation between women and informal sector participation. The author agreeing with the work by D o g r u l (2012) concluded that most women turn to work in the informal sector due to imbalance employment opportunities in the formal sector (W a m u t h e n y a , 2010).

The work by G e r x h a n i , v a n d e W e r f h o r s t (2011) on the effect of education on the informal sector of Albania proved that education has a negative correlation to the informal sector participation in Albania. Also as a good characteristic of all informal sectors, tax evasion had a negative correlation with education. This shows that education has an impact on an individual's decision to participate in the informal sector. Tax evasion has been identified as one driver of the informal sector participation. The perception of corruptness of government has led to the growing informal sector of many developing countries such as Ghana (I g u d i a et al., 2016). Corruption and bad governance has been identified as the main drivers of informal sector participation in Nigeria (I g u d i a et al., 2016). Also, S o o k r a m , W a t s o n (2008) in their research on 'Small-Business Participation in the Informal Sector of an Emerging Economy' found tax evasion as one of the main drivers for the participation in the informal sector of Trinidad and Tobago. The easiness of entry and unregulatory nature of the informal sector in most developing countries attracts businesses that in one way or the other want to avoid tax (S o o k r a m , W a t s o n , 2008).

The cumbersome nature of the registration process of businesses, unfriendly formal sector environment, government inefficiency, and unattractiveness of agriculture for the young have led to the growing nature of the informal sector of most developing countries (K r a k o w s k i , 2005). Based on the above literature, our study therefore aimed at investigating the determinants of informal sector participation by Small and Medium Scale enterprises in Ghana.

MATERIAL AND METHODS

Data collection and analysis tool

The empirical analysis in the research was based on data collected in a field survey conducted in 2014. The research covered the Accra central market also known as the 'Makola Market' in the Greater Accra region of Ghana. The Makola market is also known to comprise of a wide array of products being sold in the markets and its surrounding streets, from car parts to food stuffs. The market is known to house diverse informal sector activities ranging from market stall operations to open space trading which includes the selling of food stuffs, clothes and shoes, and jewellery made from locally handcrafted beads can also be found
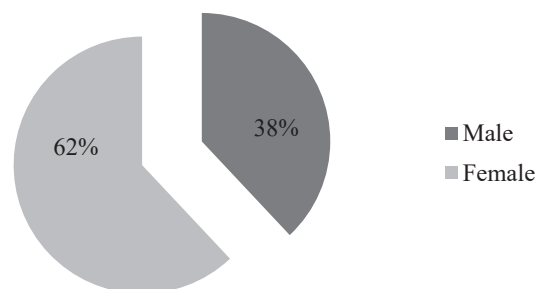

Fig. 1. Gender description of respondents
Source: Authors own

Table 1. Chi-square results of gender on registration of business enterprise

	Value	df	Assymp. sg. (2-sided)
Pearson's Chi-square	6.342[a]	1	**0.012**
Continuity correction[b]	5.759	1	0.016
Likelihood ratio	6.437	1	0.011
Fisher's exact test			
Linear-by-linear association	6.322	1	0.012
Valid cases n	315		

Source: author's own; Significance level at 0.05; Dependent variable: gender; Independent variable: registration of business

Table 2. Chi-square results for impact of gender on tax obligation

	Value	df	Assymp.sg. (2-sided)
Pearson Chi-square	3.677[a]	1	**0.055**
Continuity correction[b]	3.245	1	0.072
Likelihood ratio	3.697	1	0.055
Fisher's exact test			
Linear-by-linear association	3.666	1	0.056
Valid cases n	315		

Source: author's own; Significance level at 0.05; Dependent variable: gender; ndependent variable: tax obligation

Table 3. Educational background of respondents

Educational level	Frequency	Percentage
No education	209	66.3
Junior High School	104	33
Senior High School	2	0.6
Total	315	100

Source: author's own

Table 4. Chi-square calculation of education on registration desirability of respondents

	Value	df	Assymp.sg. (2-sided)
Pearson Chi-square	1.690[a]	2	0.430
Likelihood ratio	2.395	2	0.302
Linear-by-linear association	0.073	1	0.788
Valid cases n	315		

Source: author's own; Significance level at 0.05; Dependent variable: Education level; Independent variable: registration of business

for sale in the market. Data was collected using 'self-administered questionnaire' which combines personal contacts with structured and unstructured questionnaires. A total of 315 out of a target 350 questionnaires representing 88.8% respondents were gathered from the study area.

The study made use of the Chi-square statistical tool. Chi-square test, which is the measure of the discrepancy between the observed results and hypothetically expected results with the H_0 of no correlation between the group samples, and a correlation matrix methods were used for the purpose of answering the objectives and hypothesis of the research. Also MS Excel (2007) SPSS (Version 10) software tools were employed in the analysis in order to obtain statistical results of the study (H e s et al., 2013; G o r j i et al., 2014).

RESULTS

Descriptive statistics of respondents

To answer our proposed hypotheses, we first investigated the relationship between gender and registration of SMEs operating in the informal sector of Ghana. The graph in Fig. 1 shows data on gender of the respondents (62% of all the respondents were females and 38% were males).

Based on the G S S (2010) survey, 73% of men are employed in the urban formal sector in Ghana as compared to 67.1% of women. The complexity and characteristics of Ghana's labour system therefore suggest why there are more females than males participating in the informal sector of Ghana. As shown in Fig. 1, female headed SME operators outnumbered their male counterparts. The study further analysed to know if gender has any influence on the registration of business enterprises in the informal sector of Ghana. Data giving answer to the first hypothesis are summarized in Table 1. The two-sided asymptotic significance of the Chi-square statistic reaches 0.012 and thus is less than the confidence level of 0.05. This statistically confirms the relationship between gender and registration of SMEs in the informal sector of Ghana and we thus reject the null hypothesis. We therefore conclude that gender influences the registration of business enterprise and therefore could be deemed as a driver for participation in the informal sector of Ghana.

Table 3 shows a description of the educational level of the respondents employed in the research. Since education was one of the variables used in our

Table 5. Correlation between educational level and SME

		Value	Asymp. Std. Error	Approx. T^b	Approx. Sig
Interval by interval	Pearson's *R*	−0.015	0.056	−0.269	0.788
Ordinal by ordinal	Spearman's correlation	−0.023	0.056	−0.402	0.688
Valid cases *n*		315			

Source: author's own

Table 6. Chi-square results of education and tax compliance of respondents

	Value	df	Assymp.sg. (2-sided)
Pearson Chi-square	1.909^a	2	0.385
Likelihood ratio	2.670	2	0.263
Linear-by-linear association	0.04	1	0.947
Valid cases *n*	315		

Source: author's own; Significance level at 0.05; Dependent variable: Education; Independent variable: tax obligation

study, it is worth knowing the level of education of the various SMEs to investigate whether education influences the level of SME participation in the informal sector of Ghana. Table 3 shows that 66% representing 209 out 315 SMEs interviewed had no formal education. This suggests that most of the SMEs participating in the study area lack basic education and this could attribute to their participation in the informal sector of Ghana. Also, only 0.6% (2 SMEs) had education up to the Senior Secondary level and this could have detrimental effects on the working conditions as well as social security levels of employees under these SMEs.

Table 2 represents the relationship between gender and tax obligation of SMEs which would impact the participation in the informal sector of Ghana. As most of the SMEs in the study were found out to be headed by females, we therefore analyze the extent to which gender could influence tax obligation.

The Pearson Chi-square value is significant at $P = 0.05$. Significance level obtained was 0.055. We therefore reject the null hypothesis and conclude that gender has an impact on tax obligation of SMEs and therefore can influence participation in the informal sector of Ghana.

To answer our third and fourth hypotheses and analyze the impact of educational level on registration and tax obligation in the informal sector of Ghana, we regressed the results of the educational level of respondents against the registration and tax obligation of respondents. Table 4 presents the impact of education on the participation of SMEs in the informal sector of Ghana.

The Pearson Chi-square value obtained from the Chi-square calculation on the impact of educational level on the registration desirability of respondents was 0.430. Obtained value was greater than the confidence level of $P = 0.05$. We therefore cannot statistically confirm that the educational level has an impact on registration. We therefore reject the alternate hypothesis and accept the null hypothesis and conclude that the educational level does not significantly impact the registration of SMEs in the informal sector of Ghana.

However, looking at the correlation between the educational level and registration desirability of respondents in Table 5, a negative Spearman's correlation coefficient was obtained (−0.023). This means that as the educational level of respondents increases, the number of unregistered respondents would decrease by 2.3%. Hence, we may conclude that although the educational level affected the registration insignificantly, it has a negative correlation with registration which to some extent impacts the number of unregistered SMEs and therefore can be deemed as a driver of informal participation by SMEs in Ghana.

An important feature of any business operating in the informal sector of any economy is tax obligation which contributes to GDP of that economy. The study therefore analyzed the tax obligation of the respondents and found out that 170 (54%) of the respondents answered no when asked if they pay tax in one form or the order as shown in Figure 2. This implies that most of these businesses involved in the study do not pay tax in one form or the order and therefore impacting

Table 7. Spearman's correlation between educational level and tax obligation of respondents

		Value	Asymp. Std. Error	Approx. T^b	Approx. Sig
Interval by interval	Pearson's *R*	−0.004	0.056	−0.066	0.947^c
Ordinal by ordinal	Spearman's correlation	−0.012	0.056		
Valid cases *n*		315		−0.212	0.833^c

Source: author's own; Significance level at 0.05; Dependent variable: Educational level; Independent variable: tax obligation

on the economic development of Ghana. With the low educational level of the respondents as shown in Table 3, it is worth finding out if education has any impact on tax compliance. As education has been seen as a good indicator of economic growth, we assume that as the educational level of the respondents increases, there would be an increase in tax obligation of the respondents.

As shown in Table 6, the effect of education on tax compliance was insignificant and therefore there is no impact of education on SME tax obligation in the informal sector of Ghana. The two-sided asymptotic significance of the Chi-square statistic reaches 0.385 and thus is greater than the confidence level of $P = 0.05$, which implies that we cannot statistically confirm the relationship between education and tax compliance of SMEs in the informal sector of Ghana and we thus accept the null hypothesis.

Table 7 presents the Spearman's correlation between the educational level and tax obligation of respondents. As evident from the table, the Spearman's coefficient of correlation is 1.2%. This implies that with an increasing educational level of respondents, the number of the tax compliance would increase by 1.2%.

Therefore, we may conclude that though the educational level was insignificant to tax compliance, there was a positive correlation between the educational level and tax obligation by respondents which could impact the participation of SMEs in the informal sector of Ghana.

DISCUSSION

The presented results suggest that the participation in the informal sector of Ghana by SMEs could be attributed to gender and educational level. D j a n k o v et al. (2002) suggest that the informal sector participation is encouraged in economies with high labour, low skilled personnel, low wages and also the ease to work without proper documentation and registration of work. Comparing this to the obtained results, 66% of the respondents had no education which means that they are likely to participate in the informal sector since low labour skills come with low education. Also, the low education suggests that the labour force lack the prerequisite skills required to be employed by formal institutions and hence may tend to participate in the informal sector. These results are in line with those of M a g i d u (2010) and W a m u t h e n y a (2010).

Adding to this, tax evasion has been documented as one reason why people tend to participate in the informal sector of most developing economies such as Ghana (S c h n e i d e r , 2005). Ghana, on the other hand, has a progressive tax system whereby an individual is taxed based on the income. However, it is problematic when it comes to taxing workers in the informal sector of Ghana as financial records are needed for such

actions. With a low educational level obtained from the study there is likelihood that most of the SMEs would not keep finance records which is a hindrance to tax collection. Though the government of Ghana through the daily levy tax collection system is able to collect tax from the informal sector, this has been deemed an ineffective way (A r y e e t e y , 2001). This result is in line with S o o k r a m , W a t s o n (2008).

Also, results obtained from the study on tax obligation of respondents showed that 54% of the total respondents do not pay tax in one form or the other. Since the growth of any country depends on the GDP of that country and taxes are an important aspect of the GDP, the inability of government to collect the required amount of taxes would imply that the government would not be able to fulfil its developmental policies such as improved education and health which are most important in any country's development. However, the study did not statistically prove that the educational level of a respondent determines his/her willingness to pay tax. As stated by O s e i - B o a t e n g , A m p r a t w u m (2011), the root cause of the high informal sector participation in Ghana is the inability of the formal sector to absorb the growing active population and hence participation in the informal sector, which is in line with the obtained results. However, the Spearman's correlation results obtained show that there is a likelihood that the individual tax compliance would increase as the educational level increases. This means that as the individual's level of education increases, there is a high tendency for the individual to be employed in the formal sector and hence complying to payment of taxes.

On the issue of gender and informal sector participation, many authors in this field have pointed out the important role an individual's sex plays in the informal sector. G i e s e , H o f f m a n (1999) stated that men are more likely to be participants of the informal sector as compared to women. Contrary to this, results obtained showed that women are more likely to participate in the informal sector of Ghana. 62% of the respondents in the study were women while 38% were men but it is
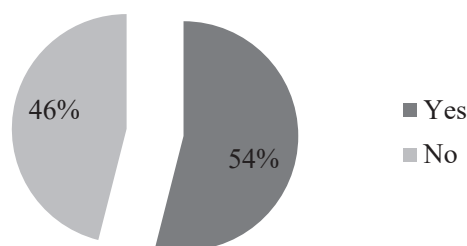

Fig. 2. Tax compliance of respondents
Source: Authors own

in line with L o s b y et al. (2002). The authors argued that women are more likely to work in the informal sector than men due to their household responsibility, especially the responsibility of child care.

The labour system of Ghana is of high complexity and is most often characterized by male participation in formal institutions. Statistically, 73% men as compared to 67% women are employed in the formal sector of Ghana (GSS, 2014). Also taking into account the rate of literacy, 82% of men in Ghana as compared to 71.4% of women can read and write (GSS, 2014). This suggests that males are more likely to be employed in the formal sector as compared to females as obtained by the study. As noted by L a u k k o n e n et al., (2009), many women in most developing countries face unfair competition with their male counterparts in terms of job opportunities and on the basis of access to credit for business set ups. This therefore encourages them to participate in the informal sector as it is the only source of employment for many women in most developing countries such as Ghana.

To conclude, the study results obtained on gender and tax compliance were significant showing that sex of an individual could determine whether the individual would pay tax or not. As established above, the participation in the informal sector is gender dependent the same as the tax compliance. However, the study could not prove whether male or female participants in the informal sector are likely to pay tax or not but is inconsistent with other study results (A l m et al., 2004).

CONCLUSION

Informal sector participation has been on the rise in recent times in Ghana

Gender studies on informal sector participation are low and hence the study has contributed to the low research on gender and its impact on informal participation. From the study, gender has been proven to be a driver of informal sector participation. Also, a cross tabulation of gender against tax obligation revealed that gender has an impact on tax obligation of SMEs in the informal sector of Ghana. However, the study could not prove if male or female headed SME is more likely to register or pay tax as none of the variables had a strong significance level compared to registration or tax obligation. The vision of the structuralists, who consider the informal economy as a structural result of marginalized groups of population rather than the result of a deficient legal constellation or a result of mechanics of market forces created by large corporations which are unable to cover the demand in its extremities, can thus be supported by the result of this study.

The research also found out that the educational level was insignificant on the registration of SME. The

research also found low educational level attainment and low tax obligation as the predominant characteristic of SMEs operating in the informal sector of Ghana. Also, more females than males were found to be operating in the informal sector of Ghana.

Concluding, gender and educational status of SME operators were found as drivers of SME participation in the informal sector of Ghana.

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