

# The propensity to participate in formal training programmes

## Evidence from small and medium-sized enterprises (SMEs) in Ghana

Obi Berko O. Damoah

*University of Ghana Business School, University of Ghana, Accra, Ghana*

Augutina Ashie

*Department of Human Resource,  
University of Education, Winneba, Ghana, and*

Elias Kodjo Kekesi

*University of Ghana Business School, University of Ghana, Accra, Ghana*

### Abstract

**Purpose** – The purpose of this paper is to identify the factors that are likely to predict the likelihood of a small firm choosing to participate in formal training programmes. The objective is to inform public policy and practice with regard to what SMEs must do in order to realise the benefits of participating in formal training programmes like their counterpart large firms so as to remain competitive.

**Design/methodology/approach** – The study uses a logistic regression model to ascertain the critical factors that are likely to predict SMEs' chances to engage in formal training programmes. The data that inform the logit model are based on a non-probability sample of 85 SMEs drawn from Accra, the capital of Ghana.

**Findings** – The major findings are that firm size and having younger owner-managers that are daring play a critical role regarding whether or not small firms in Ghana will offer themselves for formal training programmes. However, firm size, including having young and daring owner-managers reflect the internal resource capacity of a firm. The results imply that the internal resource capacity of a firm is critical in predicting whether or not a small firm will offer itself for a formal training programme, although the changing trends from the external environment are also crucial.

**Research limitations/implications** – As a result of the lack of an available sample frame, the study is based on a non-probability sample and so it must be noted that the results must be interpreted in that context. Besides, the study sampled SMEs located in Accra, the capital of Ghana, thus future research must extend the study to cover the rest of the nine regions in Ghana. A further analysis based on probability sampling is needed to strengthen the results.

**Practical implications** – Consequently for the growth and the development of SMEs in developing countries, the need for owner-managers to first focus on internal resource building is key. What this means is that owner-managers cannot ignore the conscious attempt to monitor, develop and grow their own internal resource strengths before that can be aligned to any changing trends from the outside environment.

**Originality/value** – The paper provides evidence as regards why most SMEs worldwide find it difficult to participate in formal training programmes. The findings seek to enhance the understanding of the barriers to the growth of SMEs' line of research.

**Keywords** Training, SMEs, Ghana

**Paper type** Research paper



### 1. Introduction

The important role of SMEs on the socio-economic development of economies is recognised across the world (Abor and Quartey, 2010). This is seen in SMEs' peculiar ability to provide income and employment. Studies confirm that a great percentage of

SMEs' contribution to gross domestic product (GDP) and over 60 per cent of total employment in high-income countries (Savlovski and Robu, 2011; OECD, 2002; Demirgüç-Kunt and Klapper, 2012; US International Trade Commission, 2010). The contribution of SMEs to emerging and developing economies in Asia and Africa are noted to be even greater. Research indicates that the world's best performing economies, such as China, Taiwan and Hong Kong, depend immensely on SMEs (Park and Kim, 2011; Wang, 2013; Wang and Tsai, 2010). In Pakistan, Qureshi and Herani (2011) maintain SMEs foster an entrepreneurship culture, skills development of human resources (HRs) and improve the standard of living and quality of life. In Africa, SMEs are noted to represent over 90 per cent of private business and contribute to more than 50 per cent of employment and of the GDP. For example, in Sub-Saharan Africa, it is found that SMEs represent about 95 per cent of businesses (Fjose *et al.*, 2010). Aremu and Adeyemi (2011) note that SMEs contribute substantially to GDP, export earnings and development opportunities to Nigeria. In Tanzania, it is estimated that more than a third of the GDP originates from the SME sector. It is reported that the SME sector contributes over 80 per cent of Kenya's employment and contributes about 20 per cent to GDP (Nyagah, 2013). In the Republic of South Africa, SMEs are found to contribute 60 per cent to employment and generate about 40 per cent of its total output (Abor and Quartey, 2010). In Ghana, SMEs provide about 85 per cent of manufacturing employment and about 70 per cent to GDP and account for about 92 per cent of businesses (Abor and Quartey, 2010; Ackah and Vuvor, 2011).

Like many small firms in sub-Saharan Africa, SMEs in Ghana are urban or rural enterprises. The current study is based on the former, which can also be subdivided into organised and unorganised enterprises. According to Ackah and Vuvor (2011), whilst the organised firms are often sole proprietorships, they have salaried employees and are often located in registered offices, "the unorganised ones are mostly made up of artisans who work in open spaces, temporary wooden structures or at home and employ little or in some cases no salaried workers" (p. 9). The unorganised firms often rely on family members or apprentices. The unorganised sector is characterised by no or low levels of education of the owner-managers. Overall, the SMEs in Ghana are a heterogeneous group of small workshops making furniture, metal parts and clothing, medium-sized manufacturers of machinery, service providers such as restaurants, consulting and computer software firms.

Despite the contribution of SMEs to the socio-economic development of countries, both the developed and the developing, it is found that SMEs are faced with many challenges. Studies have explored these problems, challenges or barriers and concluded that for most SMEs, development and growth are hampered by inadequate finance, lack of managerial skills, logistics or equipment and technology problems, regulatory issues and lack of access to international markets (Arokiasamy and Ismail, 2009; Panagiotakopoulos, 2011; Sherazi *et al.*, 2013; Poblete and Grimsholm, 2010; Green and Martinez-Solano, 2011; Dalziel, 2010; Brown and McCracken, 2009; Magableh *et al.*, 2011). In Ghana, about a decade of research into the challenges of SMEs confirms what has been reported internationally. Amofo (2012) reports that weak infrastructure, lack of appropriate and adequate managerial and entrepreneurial skills, lack of training and leadership acumen are among the key constraints. Abor and Quartey (2010) note that these problems inhibit SMEs' ability to contribute sufficiently and effectively to the development of economies. Of these challenges, it is contended that lack of requisite skills following inadequate formal training constitute one of the significant constraints on SMEs growth and development (Kayanula and Quartey, 2000; Puplampu, 2005; Amofo, 2012).

Abor and Quartey (2010) recommend that governments across the world should encourage certain training institutions and non-governmental organisations through tax incentives to provide training to entrepreneurs on key issues including, record keeping and managerial know-how, because it is generally noted that the development of workforce training and skills in SMEs are central to their growth and survival (Thassanabanjong *et al.*, 2009). Puplampu (2005) found that human skills and competencies are required for the effective management of SMEs. Researchers (e.g. Ibrahim and Soufani, 2002; Hoque and Bacon, 2006; Amofo, 2012), coupled with the Business Development Service (2010) and Ghana concur that lack of training is a major constraint at all levels of growth among SMEs. The high failure rate of SMEs in Ghana is largely attributed to the lack of training and skills development. These studies identified that, concerning SMEs training, the owner-manager is the key barrier because with SMEs every activity and/or decision revolves around the owner. Yet, to date in Ghana no systematic research has statistically investigated or assessed the variables that determine the owner-manager's decision whether or not to participate in a training programme. Based on this, this study seeks to shed light on the issues from the Ghanaian perspective.

To address the issues, the rest of the paper is subdivided as follows. Section 2 discusses the conceptual background and hypotheses development. Section 3 deals with the data, the econometric method analysis and the results. Section 4 deals with the conclusion and discussion. Section 5, the final section focuses on the implications of the study and the limitations of the study.

## **2. Conceptual background and hypotheses development**

### *2.1 Owner-gender and the propensity for training*

One major decision of the owner-manager of SMEs is whether to train or not to train its HR. Previous studies (e.g. Gamage and Sadoi, 2013; Kitching and Blackburn, 2002; Johnson, 2002; Devins and Johnson, 2003) have explored several environmental and organisational factors that influence owner-managers' propensity to train, much to the neglect of his/her personal perceptions for or attitudes towards training. Evidence regarding gender differences on attitudes to training generally show that women are less likely to engage in formal training than their male counterparts. This gender difference was found to be as a result of family commitments and other engagements women undertake which limit the use of their full human capital potential (Barron *et al.*, 1993; Holmes *et al.*, 1997). In support, Stanger (2004) asserts that women's general educational background and traditionally limited and relevant prior work experience is likely to limit their opportunities to accrue the necessary experience and skills associated with small business success. To the contrary, some studies conclude that the gender of the owner-manager does not determine the propensity to train. For instance, in a study to find gender differences in company training in Taiwan, Huang (1999) showed that there is no difference in training opportunities that can be attributed to gender. Similarly, Gilbert *et al.* (2010) conclude that biological sex does not matter when it comes to the selection, placement, training, development and appraisal of team members. Yet in Ghana, gender specific roles are still demarcated and so on average, men are seen to be ahead in most economic activities. Following from this the following hypothesis regarding gender and the propensity to train is posed:

- H1.* Compared to the female, the male owner-manager will be more likely to participate in training programmes.

## 2.2 Firm size and the propensity to training

There is overwhelming evidence on the link between firm size and training showing that the larger the firm, the more likely it is to engage in training. According to Gamage and Sadoi (2013) this outcome is the most consistent in SME research. Using data set from manufacturing firms in Japan, Gamage and Sadoi (2013), further indicate that firm size has a direct effect on the usage of training practices. This relationship is confirmed by several previous studies in Germany (Almeida and Aterido, 2010); Australia (Webster *et al.*, 2005); Spain (Castany, 2008) and the UK (Westhead and Storey, 1996; Mabey and Thompson, 2001; Storey, 2004; Kotey and Folker, 2007; Kotey and Slade, 2005).

Most small firm owners are ignorant of the benefit of training as well as training providers and programmes available. The quantity of formal training purchase by small firms is less compared to large firms. For instance, Webster *et al.* (2005) found that the size of the business is significantly related to three variables, namely, whether the business owner undertakes training, whether the staff undertakes training, and whether resources are made available for training. According to the results, the larger the business the more likely it is that the owner has been involved in previous training and the more likely the owner sees the need to be involved in training in the future. It is also evident that owners of larger businesses consider training important enough to make the resources available (Reid and Harris, 2002).

In providing supporting evidence from Spain, Castany (2008) shows that small firms face greater obstacles in accessing training and that the main reasons for that are related to their technological activity and the geographical scope of the market in which they operate. In their discussion paper, Almeida and Aterido (2010) also confirm the relationship in a sample of Spanish industrial firms. They explain that smaller firms are less likely to invest in job training because they lack the needed financial resources to invest, in spite of the possibly large expected returns.

In contrast, Hansson (2007) found that the size of the organisation is not associated with either of the training incidence or intensity. In Northern Ireland, Reid and Harris (2002) looked at determinants of SMEs' spending on training by including a range of HR management functions as well as workforce characteristics, the external environment, size and the ownership status. Their results show that HR functions matter a lot in determining training spending while workforce and ownership characteristics, external factors and size of the firm were much less important in determining expenditure on training in SMEs. Though, the empirical front seems to be divided, it is plausible to argue that large firms, because of their level of resources and growth, will be more likely to participate in training. Consequently, the following hypothesis is posed:

- H2. Compared to the small firm, the large firm will be more likely to participate in training programmes.

## 2.3 Firm age and the propensity to training

The age of the firm could also be an influential factor for training propensity of SMEs. Research on the relationship between firm age and training is still evolving as there is no conclusive evidence. The empirical front of the age of the firm and the propensity to train is divided. While some studies reveal that young firms tend to invest more in training than their older counterparts, other studies report otherwise. Kitching and Blackburn (2002) in their research reporting on the nature of training and motivation to train in small firms conclude that a higher propensity to train is associated with younger firms as opposed older firms. Using a random sample of 326 manufacturing SMEs from Japan,

Gamage and Sadoi (2013) indicate that the age of the firm does not significantly determine training expenditure in a business firm. Similarly, Jayawarna *et al.* (2007) found no significant influence of firm age on their training propensity. The evidence based on a large data set from Canada's workplace and employee survey also confirms that age does not have any meaningful impact on the decision and participation to train (Turcotte *et al.*, 2003). However, because more experience is associated with the age of a firm, a hypothesis is posed to support those argue that older firm will be more likely to participate in training programmes. Again, it is plausible to argue that older firms will be more inclined to the changing trends from the external environment and so will be more willing to create and maintain that competitive advantage by participating in a training programme. As a result the following hypothesis is hypothesised:

H3. Firm age will be positively associated with the propensity for training.

#### 2.4 *The age of owner-manager and the propensity to training*

Similarly, as with the age of a firm, it is reasonable to expect that older owner-managers will possess higher experience than the younger owner-managers. As a result, age as a characteristic of the owner-manager's personality will influence the propensity to train. Research shows that younger people are regarded as more trainable compared to older owner-managers. Newton (2006) found that there is a clear association between age and the amount of training offered to and received by employees. Employees aged over 55 were less likely than other workers to participate in training. Older employees were also less likely than younger or mid-life workers to take up any opportunities for training that were made available. It is therefore relevant to explore age of the owner-manager as a determining factor in propensity to train among SMEs in order to fill this lacuna in research. Based on the argument, above, the following hypothesis is posed:

H4. The age of the owner-manager will be positively associated with the propensity for training.

#### 2.5 *Business sector and the propensity to training*

The business sector of the SME may also have an influence on the propensity to train. Kitching and Blackburn (2002) who found a higher propensity to train in firms in the service sector confirmed that firms in the service sector apply more training practices than in other sectors. This is consistent with Wong *et al.* (1997) suggestion that different industrial sectors have different training requirements. They affirm that the need to maintain quality customer relationships may bolster intensive management training in the service sector by SMEs. However, Arvanitis (2008) did not find any significant difference between the manufacturing sector and the service sector and their propensity to train. This simply means that the sector of a firm with regard to its business did not significantly determine the propensity to train.

Ghana as other developing countries does not have a strong manufacturing base, compared to the service sub-sector. Following a strong customer expectation from service provision, the following hypothesis is hypothesised:

H5. Compared to SMEs in the manufacturing sector, SMEs in the service sector will more likely participate in training programmes.

#### 2.6 *Owner-manager's education level and the propensity to training*

The literature on the link between educational level and training has confirmed that education has a positive effect on receipt of formal training (Frazis *et al.*, 1998; Arvanitis

and Stucki, 2008). For example, the owner-manager's propensity to train his/her workforce will be greatly dependent on the owner-manager educational attainment. Most research on continuing on-the-job training suggests the expected outcome of the training and the participation is influenced by the educational attainment of the beneficiaries. It is implicitly shown that employees with higher educational attainment receive more training than those without (O'Connell, 2002, 2004; OECD, 2002). Newton (2006) also discovered that people possessing higher levels of qualifications are more likely to have undertaken some training than those with low or no qualifications. The findings of Almeida and Aterido (2010) further support the idea that, the more educated the workforce in the firm is, the higher the return in training investment, regardless of firm size. This is fully aligned with the empirical evidence of Johanson and Adams (2004), reported in Almeida and Aterido (2010) that more educated workers have higher returns on training outcome and are more likely to receive job training than less educated workers. By contrast, Huang (1999), however, concluded that educational attainment, measured as years of schooling completed, had no effect on the amount of training received. Yet, it is plausible to argue that an educated owner-manager, knowing the importance of education and training, will be more willing to participate in training programmes compared to his/her counterparts that do not. In the light of this, the following hypothesis is posed:

*H6. Highly educated owner-managers will be more willing to engage in training programmes than lowly educated owner-managers.*

### 3. Data and econometric method

The study is based on a purposive sample of 85 SMEs consisting 19 manufacturing firms and 66 service firms, located in the capital of Ghana, Accra. The surveyed spanned January-March 2013. Whilst a total of 100 questionnaires were administered, 85 usable questionnaires were returned, fully filled. Tables I and II below presents the composition of the sample.

Table I shows that the male owner-managers were slightly higher than the females, consisting of 51 and 49 per cent, respectively. More service firms were represented than manufacturing firms, representing 66 and 49 per cent, respectively. The higher representation of the service sub-sector in the sample confirms that the economies of sub-Saharan African are more service based compared to the developed economies (e.g. the UK and the USA) which are more manufacturing based. The small-sized firms were more represented compared to the medium-sized firms comprising of 69 and 16 per cent, respectively. Owner-managers with High School Certificate were more accounted for followed by diploma and degree holders, involving 28, 22 and 20 per cent, respectively. Owner-managers with a professional degree were the least, indicating 2 per cent. Whilst the average firm age was six years, that of the owner-manager's age was 33.

### 4. Model specification

The logistic regression which matches the likelihood of a training decision to a set of explanatory variables was used because of the dichotomous nature of the dependent variables (train or not to train). Based on this the following econometric model is specified. In  $\text{Pi}/(1-\text{Pi}) = \beta_0 + \beta_1 \text{firmage} + \beta_2 + X_1 + \epsilon$ .

Pi is the probability of a small firm participating in a training programme and  $(1-\text{Pi})$  is the probability of a small firm not participating in a formal training programme. The ratio  $\text{Pi}/(1-\text{Pi})$ , known as the odds ratio, is simply the odds in favour of a small business

**Table I.**  
Composition of the  
sample – categorical  
variables

Variable	Frequency	%	Cumulative
<i>Gender</i>			
Male	43	51	51
Female	42	49	100.00
Total	85	100.00	
<i>Sector</i>			
Manufacturing	19	22	
Service	66	78	
Total	85	100.00	
<i>Firm size</i>			
Small	69	81	81
Medium	16	19	100.00
Total	85	100.00	
<i>Owner's education</i>			
High school	28	33	33
Diploma	22	26	59
Degree	20	24	83
Professional degree	2	2	85
Postgraduate	6	7	92
Short courses	7	8	100.00
Total	85	100.00	

**Table II.**  
Composition of the  
sample – continuous  
variables

Variable	<i>n</i>	Mean	SD	Min.	Max.
Firm age	85	6.12	5.428	1	32
Owner's age	85	33	9.605	20	59

participating in training. The logit model means that the log of the odd ratio is a linear function of the explanatory variables.  $\beta_o$  represents the constrained model, firmage refers to the age of the owner-manager,  $X_1$  is the vector of other explanatory variables (i.e. firm size, gender, owner-education, sector, owner-age), whilst  $\epsilon_i$  is the error term.

## 5. Measurement of dependent and independent variables

In this study the propensity to train is a dichotomous variable and therefore, whether the firm will participate in training, takes the value 1. Whilst where a firm will not participate in training it takes the value 0. Following previous studies, the independent variables in this study are measured as follows:

- (1) firm size, measured as the total number of full-time employees (Webster *et al.*, 2005; Hall and Cook, 2009);
- (2) firm age, measured as the number of years a firm has existed since starting operation (De Toni and Nassimbeni, 2001; Arvanitis, 2008);
- (3) owner-education, measured as the education level attained by the owner at the time of the interview (Newton, 2006; Almeida and Aterido, 2010);
- (4) sectors, measured as the industry where a firm operates, using dummy variables (Arvanitis, 2008);

- (5) gender, measured as a dummy variable with 1 for male and the 0 for female (Gilbert *et al.*, 2010); and
- (6) owner-age, measured as the calendar age in years of the owner-manager (Beaver and Hutchings, 2005).

## 6. Defining small- and medium-sized enterprises

SMEs are defined in varied ways, in most cases, within the context of the institution providing the official definition. Recognising these varied definitions, it is proper to adopt the definition that is within the context of the study. We therefore employ the official government of Ghana definition of SMEs as firms employing not more than 100 employees (Gibson and Van der Vaart, 2008). In furtherance, firms employing less than nine workers are small firms while firms employing between 10 and 30 workers are medium firms.

## 7. Estimation, analysis and regression results

The statistical package for social science is the main statistical package used to analyse the data.

From the results in Table III, the significance levels are as follows: \*(0.05), \*\*(0.01) and \*\*\*(0.001). From Table III, the direct logistic regression was performed to assess the effect of the predictors on the likelihood that respondents will participate in a training programme. The model consisted of six independent variables (owner-gender, owner-education, firm size, firm age, sector and owner's age). The full model containing all the predictors was statistically significant at  $X^2(6, N=85)=18.891$ .  $p < 0.05$ , indicating that the model was able to distinguish between respondents who participate in training and those that do not, based on the predictors. The model as a whole explained 0.270 (Nagelkerke's  $R^2$ ). As shown from Table III, only two variables made a significant contribution to the model (owner-age and firm size). The strongest predictor was the firm size indicating an odds ratio of 1.9. This indicates that owner-managers with medium-sized firms are 1.9 times more likely to participate in training compared to small-sized firms, controlling for all other factors in the model. The owner's age was statistically significant, but was negative (−0.110), implying that unlike the younger owner-managers, the older owner-managers will not participate in training, controlling all other factors in the model. Therefore, firm size and owner age were significant at 0.01 and 0.05 respectively.

Predictors	<i>B</i>	SE	Wald	df	<i>p</i>	Exp (B)	95% CI for Exp. (B)	
							Lower	Upper
Male	0.472	0.526	1.991	1	0.158	2.101	0.749	5.890
Owner-education	−0.055	0.195	0.080	1	0.778	0.778	0.645	1.388
Medium-sized firm	1.900	0.741	6.564	1	0.010	6.684	1.563	28.588
Firm age	0.033	0.085	0.154	1	0.695	1.034	0.876	1.221
Service sector	−0.215	0.629	0.116	1	0.733	0.807	0.235	2.770
Owner-age	−0.110	0.050	4.739	1	0.029	0.896	0.812	0.989
Constant	2.525	1.552	2.647	1	0.104	12.491		

**Table III.**  
Logistic regression  
predicting the  
likelihood of  
participating in  
training programme

8. Significant checks

In order to confirm the results above, the  $\chi^2$ -test of independence and an independence  $t$ -test were conducted. Concerning gender and the likelihood of participation in training, the  $\chi^2$ -test of independence indicated no significant association between male owner-managers and female owner-managers,  $X^2(1, n = 85) = 2.166, p = 0.141$ , confirming the logistic regression's results. The same goes for the owner's education level and sector, indicating  $X^2(1, n = 85) = 6.876, p = 0.230$  and  $X^2(1, n = 85) = 0.40, p = 0.841$ , respectively. However, with the firm size, the  $\chi^2$ -test of independence indicates a statistically significant association between the medium-sized firm and the small firm,  $X^2(1, n = 85) = 7.423, p = 0.006$ . Similarly, as regards the continuous variables, the independent sample  $t$ -test shows a statistically significant association in the case of owner's age and not the firm's age. The results of these two variables consist of: firm age,  $t = 1.104, p = 0.273$  and owner's age,  $t = 2.660, p = 0.009$  (Table IV).

9. Conclusion and discussion

In conclusion, the results show that except for firm size and owner-manager's age, the rest of the variables (e.g. owner-manager's gender, owner's education, firm age and sector of business of the firm) do not predict any better likelihood of participating in training programme. The results of the study show that gender has no significant influence on owner-manager's propensity to train. This supports the conclusion made by Gilbert *et al.* (2010) that biological sex does not influence key HR decisions such as selection, placement, training, development and appraisal. It is also consistent with the results of Huang (1999) who indicates that there is no difference in training opportunities that can be attributed to gender. The outcome is, however, inconsistent with Holmes *et al.*'s (1997), findings that females are less likely to engage in formal training as against their male counterparts, which they explained may be attributed to the additional family commitments of women. Implicitly, the finding could be as a result of the fact that in recent times, there is an attempt to provide equal opportunity and resources to males and females in various aspects of life (e.g. politics, education, workplace, home, etc.) and this could have reduced gender-based differences in the propensity to train.

The finding that firm age has no significant effect on the likelihood to participate in formal training supports the finding of Jayawarna *et al.* (2007) that there is no significant influence on the training with regard to firm age. It, however, fails to support the findings of Arvanitis (2008) who found a positive effect for firm age on training propensity and that of Abdulkadir and Adedoyin (2011) who also found a strong positive relationship between firm age and strategic HRM practices like training. This outcome could imply that with the advent of the globalisation process, information flows to both younger as

Table IV.  
Summary  
of findings

Hypotheses	Initial prediction	Supported	Not supported
H1: gender	+		✓
H2: firm size	+	✓	
H3: firm age	+		✓
H4: older owner -managers	+		✓
H5: sector	+		✓
H6: owner's education	+		✓

well as older firms. So both the older firms and younger ones are constantly updating their knowledge, skills and abilities through their respective local and the international media. This helps both categories of firms to learn and adopt the best practices in their fields to achieve growth and development.

The result that educational level has no influence on the propensity to train also supports the findings of Huang (1999) who found that educational attainment had no effect on the amount of training received in high-tech firms in Taiwan. It, however, does not support the discovery of Newton (2006) that people possessing higher levels of qualifications are more likely to undertake some training than those with low or no qualifications. Similarly, the non-significant effect of owner's education on the likelihood of training might imply that with the globalisation processes in recent times, people are educated through several means (e.g. radio, TV) and so formal education may not make that much of a difference anymore.

The present finding that firm size related positively with the propensity to training participation is in support of previous studies (Kotey and Folker, 2007; Almeida and Aterido, 2010; Castany, 2008; Waddoups, 2011) which revealed that differences in attitude to training can be attributed to firm size and that more formal training programmes will be adopted as firm size increases. By contrast, the finding is at variance with Reid and Harris (2002) as well as Hansson (2007) who found that the size of the organisation is not associated with training incidence. According to Grant (1991), size provides a firm with vertical bargaining power where the propensity to train is higher in medium or large sized firms than in small-sized firms. Consistent with Castany (2008), the study suggests that firm size differences in training propensity are as a result of differences in the firms' need to "update the skills of their employees to ensure that they acquire the specific knowledge to use new technologies and to make the firms more competitive in international markets" (p. 22). And the literature support is in favour of large firms because they have the resources to undertake the required activities to keep the firm in business and to remain competitive. Indeed, lack of access to training which characterises most Ghanaian small firms, impedes them from becoming more competitive.

In addition, the business sector of firm did not relate significantly with propensity to train. This is in support of the findings of Arvanitis (2008) who did not find any significant difference between the industrial sector and the service sector on their propensity to train. Finally, the study found that owner-manager's age related negatively with propensity to train. This is consistent with the findings by Beaver and Hutchings (2005), Newton (2006) and Arvanitis and Stucki (2008). Likewise, the implicit assumption here is that with the rapid advancement in information and communication technology, people across the world have access to information that offer them instant experience to the extent that differences in the calendar age among people may not make a significant difference whether or not it is the age of the firm or the age of the owner-manager.

## 10. Implications of the study

With regard to the practical implication, whilst the importance of training programmes cannot be over-estimated, owner-managers must build the capacity of their firms in order to access the training opportunities. The reason for this is because the significant prediction of firm size on firm propensity to participate in a training programme partly implies that training opportunity for SMEs in Ghana depends to a greater degree on the size of the SME firm. Implicitly, the managerial skills of owner-managers need to be

first enhanced in order to promote the business to the required size so that they can access training opportunities from their own resources. The common assumptions among most owner-managers in Ghana, that training programmes are meant for the large scale multinational firms, must be changed. Owner-managers must be made to understand that in today's competitive market place, participation in training programmes is a requirement in order to remain competitive and to expand. It can therefore be recommended that owner-managers in Ghana must exercise business discipline not to use business revenue for personal interest such as spending on funerals, parties, marrying more than one wife and acquiring personal houses. However, as the business starts, the business entity concept which separates the activities of the business from the owner must be strictly applied, at least to such a time that the business breaks even and start growing. Following the advantages of large firms (e.g. economic of scale and scope), business growth should be their target so that at such growth level, it will be easy to fund for training programme. Concerning the policy implications following the advent of globalisation, many strong and giant multinational firms are entering many developing countries and compete with the indigenous firms which are mainly small businesses. Such public policy initiatives will strengthen the indigenous SMEs, to compete side-by-side with the large scale multinational firms that enter their markets.

### 11. Limitation of the study

As a result of the lack of an available sample frame, the study is based on non-probability sampling and so it must be noted that the results must be interpreted in that context. Besides, the study sampled SMEs located in Accra, the capital of Ghana, and so future research must extend the study to cover the rest of the nine regions in Ghana. Further, a more vigorous analysis based on probability sampling is needed to strengthen the results. Theoretically, our data set is not able to confirm whether training activities by SMEs intensify/amplify as they increase in size. Future research should consider types and numbers of training activities of SMEs as influenced by size.

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**Corresponding author**

Obi Berko O. Damoah can be contacted at: [obiberko@gmail.com](mailto:obiberko@gmail.com)