ANALYSIS OF EDUCATION LEVELS AND SMALL BUSINESS FINANCIAL WORTH IN UGANDA

Rogers Matama[1]

ABSTRACT

A common impression prevails that the higher the education of business owners the lower the business prosperity, that the highly educated individuals suffer from the 'paralysis of analysis' and so their firms are alleged to financially starve due to excessive financial risk analyzes. This motivated investigations of the effect of educational levels of small business owners on small business financial worth. Financial worthiness in this study is defined by the financial value of the total assets of the firm while the educational levels constitute, secondary education, post-secondary and university degree. From a heterogeneous sample of 528 small firms in Uganda evidence on these variables is presented. Using negative binomial regression, results overturn the predominant 'paralysis of analysis' perspective effect on small firm asset growth. Although some education levels are reported not to move with the higher financial worth levels, overall there was significant influence of progressive education level on small business financial worth. Thus, the education level of business owners augments the existing perspectives of the human capital theory, where by the different weights of the secondary, post-secondary and university degree education levels are outlined on the small business landscape. Additionally, attractions of more firm resources that are linked to the secondary education level extend the perspective of the resource based view especially in matters regarding the knowledge resources in Uganda.

Key words: *education level, financial worth and small business*

INTRODUCTION

Individual knowledge is often linked to wealth creation and more education is expected to improve the knowledge on how business financial resources can be leveraged. Indeed, knowledge is supported as a vital resource in business firms (Barney, 1991; Barney, 2001; Charles, 2014; Webb et al., 2015). Human ingenuity is fronted as key to individual prosperity (Simon, 1983), and the respective firm's prosperity. The element of firm resources when examined in firms is referred to as human capital. Human capital according to Schultz (1993) was defined as a core element in improving a firm assets and employees in order to increase productivity, as well as to sustain competitive advantage. In firms, human capital is an instrument that increases productivity (Marimuthu et al., 2009). Organization for Economic Co-Operation and Development operationalized human capital as: knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (Côté and Healy, 2001). Considerable studies have been carried out on human capital and their implications on firm performance (Marimuthu et al., 2009). For instance, Agarwala, (2003) and Guthrie et al., (2002) recognize human capital as a booster of firm competitiveness and performance. Beyond the conventional inclination that mainly zeroed the term labor as a core factor of production, recent literature highlights individual efforts in form of human capital as knowledge, expertise and skill one accumulates through education and training (Marimuthu et al., 2009). This perspective is premised on the human capital theory popularized by Becker (1993) who not only recognized labor beyond mere factor of production but posited labor as capital among other forms of capital. Human capital is thus recognized among conventional finance capital and social capital among others. Becker further posited that human beings are the most valuable of all forms of capital, fronting human beings as the priority form of capital firms and governments should invest in.

Subsequently, previous underpinnings of the human capital theory have largely considered the human capital domain in the sphere of competence and innovation. Moreover, such studies are in the lenses of corporate managers and top management (e.g. Hambrick and Mason, 1984). Some firms especially the small ones may not have such

[1] PhD. scholar University of Dar es Salaam and Senior Lecturer at Makerere University Business School, Kampala Uganda. Email: rmatama@mubs.ac.ug

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domains neither are they run in a corporate mode. The institutional voids in some countries especially in sub Saharan Africa (Webb et al., 2015); make the landscapes in which firms operate unique.

Thus, the current study inclines onto the small firms; the focus is on owner's human capital. Moreover, small firms especially in developing economies as also noted by Korunka et al., (2011), largely rely on the business owners / founders in business asset accumulation. Small firms not only have their ownership at stake but the day to day operations as well as their strategic orientation hugely lie in the knowledge and efforts of the owners than the managers (if any). Hence, the small firms owners evidence that shows the firms to face resources poverty challenges, especially in developing economies (e.g. Fjose et al., 2010), lead to the assumption that small business owners at least attain the basic education as their source of knowledge. This basis is considered in the current study, unlike the specialized or tailored corporate trainings in large firms (Magoutas et al., 2012). Perhaps the large firms are more prepositioned to afford such trainings designed for the required competences and functions.

On the other hand, it is also argued that the higher the education the higher the affinity in analysis, thus the educated are often assumed to suffer from the paralysis of analysis and this paralysis is attributed to low business performance including financing. Classic business innovation literature (e.g. Schumpeter, 1934) widely highlights that opportunities knock once and that it is those business owners that are agile and quick that will tap the opportunities. Additionally, business-owners are largely expected as entrepreneurs to have high risk appetites. However this expectation especially in financing matters tends not subsist. In a US based study (Gurley-Calvez, 2010); entrepreneurs emerged to have high financial capital accumulation other than the expectation that they would possibly take financial risks to seek debt. This evidence largely corroborates with a recent World Bank financial inclusion study (Demirguc-Kunt et al., 2015). Hence, existing contradictions on business owners and financing affinities necessitate analyses on how the education levels may influence small business financing in the developing country contexts. Even if some western entrepreneurship literature appreciates that small business owners education may not heavily influence the success of firms, but rather ability to tap and use knowledge reserves in the new knowledge era (Penco, 2015; Drucker, 1984). Some few studies in developing economies continue to highlight that small business firm failure or even low performance is attributed to the low education level (Zikusoka, 2015). Nonetheless, small and medium enterprises (SMEs), in their informal nature in emerging economies tend to sustain the economic activities.

In particular, Uganda, a country in the sub Saharan Africa is indicated to largely rely on SMEs, her formal sector is largely (up to 80 percent) small and medium enterprises oriented (UBOS, 2010). Some studies have outlined SMEs as the backbone of economic development in most countries (Ariyo, 2005; Ihua, 2009). These firms are estimated at 800,000 entities in both urban and rural areas in Uganda. Specifically, a small enterprise is defined as an enterprise employing maximum 49 people (Bid 2008). UBOS (2010) reported that 30 percent of 458,106 enterprises in Uganda were small and medium enterprises. Although small firms like the medium firms have been esteemed as remedies for most of the economic problems such as unemployment and poverty alleviation, the firms themselves seem to repeatedly fail on matters of firm prosperity. Some surveys have signaled lack of adequate knowledge in firm resources management (Namatovu et al., 2010). It is indicated that more than 40 percent mortality rates exist among some SMEs in Uganda (Bakunda 2008: Bakunda et al., 2013) Even the government supported surveys note the alarming the continued failures of SMEs (e.g. UBOS 2010).

Nevertheless, other studies claim that education is negatively correlated to prosperity. For instance, disappointing conclusions about the impact of education in total growth have led to doubts concerning investment in human capital (Caselli et al., 1996; Pritchett, 2001). These studies have based on massive cross country data sets may not be underestimated, more so given the anecdotal arguments in developing countries that suggest that some educational schemes in sub Saharan Africa could be doing more harm than good in economic terms. Ugandan Education system follows a fairly similar to most sub Saharan African countries, which is similar to that of U.K. Leaners spend seven years in primary school, continue through secondary school for the next six years (Senior one to Senior six)., then either join tertiary institutions or university. The minimum years at university are three years especially for the degree course. With focus at expanding the country's economic benefits, Uganda's education schemes pivot the subjects such as entrepreneurs, accounting, commerce at secondary level, while the science subjects are highly advocated for with high privileges for institutions that offer such. Worth noting is that the government took a bold step and established free primary education in 1997. According to Bategeka and Okurut (2005), Uganda's Education Sector Investment Plan fixed a threshold of at least 65% of the national education budget to fund primary

education), Uganda like her sub Saharan counterparts, Angola, Benin, Botswana, among others, introduced the Free Secondary Education Policy (Cherotich et al., 2014). The countries followed the Education for All Goal and Millennium Development Goals international agendas (World Bank, 2000). Although education was declared a basic human right, critiques of free education especially in Uganda have demeaned the universal free education as a budget burden unwarranted. Such free education criticism is not only limited to Uganda but to other countries. Critiques argue that free education is free of knowledge. As noted, human capital proponents vehemently contend that education and training greatly enhances livelihoods. Perhaps following this perspective one may conclude that Uganda has fronted education as a major factor to elevate the economic status to middle income level by 2040, as noted by country's national planning authority (NPA) comprehensive program and respective reports (e.g. NPA, 2013).

Apparently contradictions in existing literature on the effects of education on business performance and growth are dominant. Should this ambiguity infuse in business operators especially in the small firm owner's minds, then, financial worthiness in small firms may be affected. Therefore, the major aim of this study is fill this gap by finding out the relationship between the level of education of small business owners and small business financial worth. As highlighted by White and Welsh (1981) peculiar characteristics of small firm's need to be examined explicitly, other than a commonly overstated perception that tends to examine small firms as small enterprises comparing to the large firms. Most small firms may never seek to leave their smallness advantages alluded to.

THEORETICAL BACKGROUND

A mix and match approach was followed in this study. Two theories inform this study. The resource based view (RBV) and the Human capital theory constituted the theoretical background.

Resource Based View Theory

This study is underpinned on the resource based view theory, since the theory dwells on the discourse of the resources that influence firm performance (Barney, 1991; Barney 2001). Several authors have contributed to the inertia of the RBV's theoretical framework, but Barney's (1991) work appears more popularized. Penrose (1959) for instance was one of the first scholars to recognize the importance of resources to a firm's competitive position. Penrose underscored that:

'... a firm consists of a collection of productive resources' (Penrose, 1959: 24).

That a firm's growth (both internally and then externally) is due to the manner in which its resources are employed and suggested that firm resources may only contribute to a firm's competitive position to the extent that they are exploited in such a manner that their potentially valuable services are made available to the firm (Penrose, 1959). The RBV perspectives to the present date have largely linked the diverse line up of the suggested resources reserves towards the overall performance of the firms. However the theory is silent on matters regarding the level of education of the business operator. Perhaps the educations level of owners could influence firm competitive advantage thus in turn affecting the firm financial worth.

Human Capital Theory

In terms of the human capital theory, it is worth noting that the theory is rooted from the field of macroeconomic development theory (Schultz, 1993). The popular proponent of the theory is Gary Becker. Becker's (1993) classic book, Human Capital: A Theoretical and Empirical Analysis with special reference to education, illustrates this theory in detail. Becker argued that there are different kinds of capitals including education, training, and medical care, among others. Indeed other scholars (e.g. Marimuthu et al., 2009), concur that investment in such dimensions as suggested by Becker constitute capital beyond the mere finance capital as indicated by Modigliani and Miller (1963) and Meyers (1984). Distinctly, Becker (1993) identified that the most valuable of all capital is the investment in human beings. More could be debated and critique.

Review of Empirical Studies

Although most small enterprise related studies consider education levels among the demographic characteristics on the respondents, these studies often analyze the education levels at descriptive statistics level. However, a few empirical works that have attempted to examine the education variable in detail bundle the variable with other demographic profiles factors. For instance, in a study based in Tanzania focused on top management characteristics

and firm performance by Philemon and Kessy (2015), age, gender and social cultural aspects considered under demographic factors were amalgamated into a single statistic. Such consolidated computations lead to generalized conclusions and less highlights on respective demographic factors on the dependent variables under investigations. Thus, education levels, a formidable dimension observed in theoretical literature especially under the human capital and firm resource related studies could be inappropriately examined.

Human capital has been divided into two main parts, individuals and organizations (Marimuthu et al., 2009). Indeed, Garavan et al., (2001) highlighted that human capitals have four key attributes; (1) flexibility and adaptability (2) enhancement of individual competencies (3) the development of organizational competencies and (4) individual employability. From Garavan's four human capital dimensions it is seen that the firm and individual are vital. Moreover, some studies have incorporated human capital as predictor to higher firm performance and sustainable competitive advantage (Noudhaug, 1998) and enhanced organizational retention (Robertson et al., 1991). The individual and organizational performance apparently feature common in these works, although the nomenclature in these studies signal no categorizations between small and large organizations, despite the differing landscapes of the two especially in business operations.

Resources and assets in firms have been a subject of debate for decades. Julian Simon's argument that there is nothing like resources scarcity (Simon, 1981); highlighted that human ingenuity was the greatest resource that leads to the wealth creation for individuals as well as their own firms. Welsh & White (1981) in a comparative study in US firms highlighted that small firms suffered from the resource poverty. Though these authors argument was in line with Simon's perspective, they indicated that firm operators needed to be mindful of spending their resources highlighting that the small firms unlike big ones face more dangers on their assets or resources. Resources have apparently moved beyond mere tangible items in firms but rather the human resources.

With high skills (including individual expertise, knowledge and creativity) becoming a major asset that determines the profitability of firms, superseding the ownership of land, machines and material capital, it is the competition for ideas, knowledge and skills that comes to define the new economy because it is no longer ownership of capital that generates wealth creation (Drucker,1993). Skills for instance were once a key lever for prosperity and fairness and skills were later considered as key prosperity levers (Leitch, 2006). Consequently, the increase in educated labor is interpreted as a power shift where the prosperity of individuals and companies depends on human and intellectual capital rather than on issues of ownership that defined Marxist accounts of the capitalist system (Brown et al., 2008).

However, existing education and finance literature has largely concentrated on the level of wages of individuals (Brown et al., 2008); the importance of human capital theory to current policy debate is not limited to issues of skills upgrading but to the broader relationship between credentials, jobs and rewards (Brown et al., 2008). Investments in education are premised on a political equation of high skills equals' high wages.

From a study that interviewed 180 senior managers and executives in 20 leading transnational companies in Britain, China, German, India, Korea, Singapore and the United States. It was indicated that there are new global possibilities for firms to define, deploy and develop their human resources in new ways (Brown et al., 2008). On the other hand, human resource issues have assumed greater strategic importance because they have come to represent a major source of competitive advantage (Ashton et al., 2009). Research in China revealed that many enterprises had adopted the latest high-performance management practices which flourish in the context of a highly educated labor force, enabling them to produce high value-added goods at much lower costs (Rodrik, 2006). As firms focus on people, the more companies want to be seen to recruit 'the best' (Brown & Hesketh, 2004).

The element of human capital stretched business acumen could explain the distinctions among resources that are largely intangible. It is rather difficult to measure the extent of knowledge grains in one's brain attained in one education, more so at different education levels. However, as a proxy of financial worth, tangible assets are applied in most studies (Lokhande, 2011; Rahman, 2001; Korunka et al., 2011).

Educational (Human) capital and Firm financial worth

Firm assets are the resources that will be utilized to generate more resource benefits. This may sound confusing but that is the gist of the matter. Assets in firms are largely viewed in terms of the physical resources such as equipment, buildings among others. Largely the human element as a resource has traditionally been seen under the factors of production as labor. Thus human resource in business literature derives more impetus from economics. Indeed, some

studies argued that more of the human capital studies (e.g. Magoutas et al., 2012) were largely focused on in the macroeconomic spectrum than the firm or microeconomics sphere.

From the economics point of view, the core ingredients of human capital include education among others (Becker 1993). In the specific angle of the business firms, Snell et al., (1999) highlighted that a firm's human capital has two dimensions which are value and uniqueness. Additionally, Seleim et al., (2007) analyzed the relationship between human capital and organizational performance and reported a positive association of the two. Similarly, a study by Bontis and Fitzenz (2002) focused on a total of 25 firms in financial services established that there existed a positive relationship between human capital management and economic and business outcomes. In terms of operators in a given firm, Selvarajan et al. (2007) indicated that human capital enhancements paves a way for greater innovativeness and this in turn offers positive implications on firm performance. More particularly on employees, it was reported that human capital has a direct impact on the intellectual capital assets that yield higher financial results per employees (Marimuthu et al., 2009). In terms of the financial value, human capital development was noted as a prerequisite to good financial performance (Delaney & Huselid, 1996).

Although some firm performance literature largely highlights firm performance to be positively influenced by human capital (Hsu et al., 2007; Marimuthu et al., 2009; Noe et al., 2003; Youndt et al., 2004), most studies skew towards the employee sphere tackling the issues of innovation and creativity. The value of the employees cannot be down played in firm performance as well as financial worth, but the distinctness of small firm owners in terms of strategic and operational transactions supersedes mere employee contribution to firms. Nonetheless, human resource are often applied in human capital studies (Marimuthu et al., 2009), yet workers largely tend to relate to their respective firms through the salary – firm relationship unlike business owners who are keen at the long term survival of the firm. Furthermore, there seems to feature contradictions in the most available firm human capital literature. Some studies strongly suggest that the long run survival of firms is dependent on employee human capital infusions for firm competitiveness (Snell et al., 1996; Wright et al., 2001), on the other hand, human resource empirical studies have become more sophisticated, moving from single measures of HR to embrace combinations or bundles of HR practices (Fitz-Enz, 2002), but such studies have largely been examined in the large entity employees.

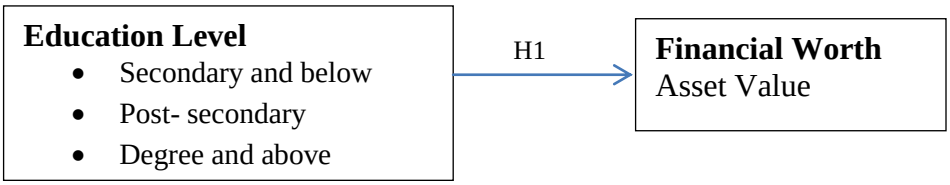
This study therefore focuses on the business operators mainly the small firm owners. Moreover, existing literature highlights the significance of education on skills and talents in large firms, largely looking at the internationalized entities. However, some studies (e.g. Fjose et al., 2010) have highlighted that the small firms unlike the large and medium firms in sub-Saharan Africa face financial resource dilemma. With the proponents of the knowledge economy such as Schumpeter (1934) and Drucker (1985) having indicated the smallness advantages in small firms, so, small businesses may hold unique paradigms regarding the link between small education levels and financial worth. It is rather difficult to measure the extent of knowledge grains in one's brain attained in one education, more so at different education levels. However, as a proxy of financial worth, tangible assets are applied in most studies (Lokhande 2011; Rahman 2001; Korunka et al., 2011). Therefore the following hypothesis is prepositioned.

H1: Business owner's education level influences small firm financial worth

THE CONCEPTUAL FRAMEWORK

The predictor variable in this study is education level while the outcome variable is financial worth. The outcome variable is operationalized as the asset value. Three levels of education constitute the core elements that were used in the predictor variable. These are highlighted in the conceptual framework in Figure 1.

Fig. 1: Education level and financial worth conceptual framework



RESEARCH METHODS APPLIED

Besides the descriptive statistics, ANOVA and Negative Binomial Regression were the major tools in this study. Negative Binomial Regression is applied when the outcome is under the Poisson distribution. The Poisson distribution is of greatest importance for the study of rare events (Land et al., 1996). Poisson distributions are characterized by skewed data distributions that violate an important requirement of ordinary least squares (OLS) regression i.e. homoscedasticity; that the conditional variance of the dependent variable is the same for all levels of the independent variables (Field, 2013; Moksony & Hegedűs, 2014). In most financial models, the dependent variables are often categorical (Choi, 2013; Kieschnick & McCullough, 2003; Papke & Wooldridge 2008). However, Cook et al (2008) indicated that many finance studies ignore the important fact that financial data is not normally distributed. Thus, important issues on estimation and inference surface (Papke & Wooldridge 1996). When the assumption of linearity is violated, some of the desirable properties of OLS estimator may not hold (Kennedy, 2003). Field (2013) indicated that for linear regression to be a valid model observed data should have a linear relationship. Transforming the dependent variable is a common practice that is widely adopted by researchers (e.g., Field, 2013); in order to fit the OLS requirements, yet another possibility is to modify the regression model, making it suitable for the analysis of Poisson variables (Moksony & Hegedűs 2014). Thus, a tailor made regression analysis known as Poisson regression. Poisson regression is a type of generalized linear models (Agresti, 1996) where the random component is specified by the Poisson distribution of the response variable which is count (Agresti, 1996).

Count data are often analyzed under the assumption of a Poisson model (Agresti, 1996). GLMs extend the scope of OLS in two ways. First, they describe transformations of the conditional mean of the dependent variable, rather than the mean itself, as linear functions of explanatory variables; second, they allow the dependent variable to have conditional distributions other than the normal distributions (Moksony & Hegedűs, 2014). Various forms of GLMs differ from each other in the particular type of transformation applied and the specific distribution assumed for the dependent variable. In particular, for the Poisson regression model: Transformation applied to the mean is logarithms. The distribution of the dependent variable is Poisson while type of explanatory variables is numerical or categorical (Agresti, 1996). More so, Berry (1993) indicated that when outcome variable is categorical; as is often in the financing variable, the assumption of linearity is largely violated. Therefore, to deal with such a problem the data is transformed through logarithmic transformation (Berry & Feldman, 1985). Poisson regression and negative binomial regression go hand in hand (Fitzmaurice et al., 2011). The issue of dispersion between standard errors and that of the z-values in the Poisson regression brings in the need for negative binomial regression. In instances where over dispersion is evident, which leads to overconfidence in results that may result in rejecting H_0 when you should not, negative binomial regression is applied. Over-dispersion is often caused by highly skewed dependent variables. Thus, errors are adjusted unlike in the Poisson regression where errors are assumed to be normally distributed. Through negative binomial, the data has more freedom unlike in Poisson distribution where errors may be underestimated. Thus, the regression models where the errors are assumed to have a gamma distribution are fitted directly to the dependent variable counts.

RESULTS

Outputs from the research are presented having been analyzed using descriptive, one – way ANOVA and the negative binomial regression model techniques.

Respondent's descriptive statistics

From a cross section of 527 small business owners valid responses collected in a survey carried out in 2014 responses on education level and financial worth were collected. Regarding educational level, three levels were used (i.e. secondary and below level, post-secondary, and university degree and above). Regarding financial worthiness of firms, the total of debt and equity financing was used to represent the firm financial worth (i.e. firm asset mean value 70.2 Million UGX). The respondents comprised of two sex categories (i.e. male respondents = 325 female respondents = 197), the age of respondents was captured in five categories (i.e. 18-29 *n*=159, 30-39 *n*=167, 40-49 *n*=119, 50 -59 *n*=45, 60 and above *n*=19).

One-way ANOVA Financial worth and Education level

A strong and statistically significant association between education level and small firm financial worth amongst the small business owners was found out. Three levels of education i.e. secondary and below, post-secondary and

university degree and above were the education segmentations in the present study, the specific one-way ANOVA tests indicated that the three levels were statistically significant in relation to small firm financial worth. Results are shown in Table 1 below:

Table 1: One-way ANOVA Financial worth and Education level

Source	**SS**	**df**	**MS**	**F**	**Prob> F**
Between groups	283731.6	2	141865.82	3.11	0.045
Within groups	23282568	511	45562.755		
Total	23566299	513	45938.205		

There was a significant effect of level of education on financial worth at the p<.05 level for the three education levels [F (2, 520) = 3.11, p = 0.045]. Bartlett's test for equal variances was significant: $\chi 2$ (2) = 285.02, p< .05 (p-value 0.000).

The regression model also revealed that, of the three levels of education considered, university degree and above had more effect on financial worth. In particular, the small business owners who had a degree and above had capacity to increase the small business financing by a huge percentage of 76% compared to those who had a secondary education and below. Furthermore, regression indicated that post-secondary education had no significant relationship if compared to the secondary and below education levels in the small business owners in Uganda, as shown in Table 2.

Table 2: Negative Binomial Regression

firm financial worth	**IRR**	**p-value**	**[95% Conf. Interval]**	
Education level				
*Secondary & below	1			
Post sec	0.860	0.392	0.609	1.215
Degree+	1.757	0.001	1.378	2.239
Constant	51.108	0.001	42.049	62.118

IRR: incidence rate ratio, also interpreted as Incidence risk rate.
**reference category*

DISCUSSION OF RESULTS

From the respondents characteristics it was revealed that most of the firm operators were male, who were mostly young and middle aged. Results indicated that there was a significant effect of education level on financial worth at the p<.05 level for the three education levels (p = 0.045). In particular, the levels of education had interesting results; the more small business owners advanced in education the more the financial worth was observed in small business firms. For instance, small business owners who had university degrees had more financing compared to those with secondary and lower education levels. This could be attributed to the fact that such owners that have been exposed to education may be able to read and interpret the financing documentations especially the loan contracts and the associated risks unlike the owners with secondary education and below.

This result is also signaling that small business owners with university degrees are accessing additional finances from side employment; this is based on the premise that existing literature (e.g. Fjose et al., 2010; Namatovu et al., 2010) has indicated that small firms do not access financing, perhaps due to lack of collateral. The degree education holders capacity to get employment is being used to attract the unsecured financing (salary loans) which are later channeled to small businesses, thus education level may enhance salaries which in turn is used as collateral for small firm financing hence boosting the financial worth. Indeed it was revealed that firm managers with higher education level may be more exhaustive in their informal search abilities that yield more informed strategic decisions in firms (Hambrick and Mason, 1984). Similarly, in a study by Philemon and Kessy (2015) which focused on top management characteristics and firm performance in Tanzania, it was revealed that majority (i.e. 43.8 percent) of the respondents had attained a university degree while the rest of the respondents were holding masters

degrees (17.6 percent) and the other respondents had lower levels of education. The same study reported that a unit increase in demographic factors (i.e. a consolidated statistic of education level, age, gender and social status) led to an increase in the standard deviation of firm performance by 0.18. To the contrary, an SME study based in Liberia by Barchue and Aikaeli (2015) that focused on firm efficiency reported that the level of education of SME operators was skewed to lower levels with a standard deviation of 1.15 from the mean level of 2.3 for the six levels of education investigated. However, Barchue and Aikaeli (2015) did not articulate the correlation of each of the six levels towards the SME efficiency. More on firm efficiency, Hussain et al., (2010) and Ajibefun & Daramola (2003) revealed that entrepreneur education positively influences the efficiency of firms in Nigeria. The firm asset value increase in tandem with the education level in the current study could also be supported by the entrepreneur learning theory view (Deakins and Freel, 1998), that SMEs strategic development result more from the knowledge and experience than plan development. In line with this theory, Anderson's (2015) study that focused on examining the effects of social cultural environment on internationalization in Tanzania, it was revealed that most firm operators had attained at least secondary education and the study confirmed that education was a key factor to international business success.

Negative Binomial Regression results indicate that education level of small business owners generally had significant effects on small firm financial worth. For instance, the small business owners who had a university degree and above had about 76% more financial worthiness as compared to small business owners who had attained secondary education and below. First, it is evident from this statistic that more firm financial resources were held with those owners that had high level of education. As noted earlier, these highly qualified owners could be ready to interpret the financial documentations in case of borrowing financial resources and even interpret the associated risks and therefore accumulate more business assets. Moreover, part of the human capital facets in firms is associated to increase in firm operators' competences (Garavan et al., 2001). However, the small business owners who had the post-secondary level of education (i.e. vocational certificates and diplomas among others) had approximately 14 percent decreased small business financial worth compared to the small business owners who had secondary and primary education levels. This is an interesting finding in that, instead of the post-secondary education increasing the financing growth abilities, it adversely affects the financial worth. Perhaps, the vocational studies may not be adding value to businesses as a whole. Apart from the results of the post-secondary and financial worth, results of this study are consistent with other similar studies that have indicated a progressive increase of incomes and as one advance in education levels (e.g. David, 2014). Moreover, the recognized diversity of human capital bundles in modern firms as indicated by Fitz-Enz, (2002) and the empirical positive link of human resources to business firm competitive advantage (Snell et al., 1996; Wright et al., 2001) especially in large entities corroborate the current study's finding on small business owners progressive educational attainment positive link to improved financial worth

IMPLICATIONS

The RBV perspectives are expanded from this study's results. The spheres of education levels in matters that enhance firm resources especially the financing resources are brought out as prominent in small firms. This gives the confidence that more studies on education as vital ingredient in asset bases especially regarding the small businesses in developing economies can be executed. Small business owners with university degree had capacity to influence more of small business financial worthiness compared to secondary education and primary education holders. Therefore, the distinctive predictor effects of education level on small business financial worthiness generate vital implications on government policy, small business management and respective RBV and human capital theoretical positions of the value of educational knowledge on the firm assets.

In the perspective of the human capital theory, the perspective of the business owners on the increase of the firm's financial worth as presented in the current study augments the exiting human capital perspectives that often hinge on the employees as core drivers of competitive advantage in firms.

From the findings of this study, there is evidence that there exists a positive and significant correlation between the education levels and firm financial worth in small firm. So, small business owners who may not have attained schooling education need to enroll. . Moreover, Uganda's education curriculum especially at secondary levels will not only improve the day to day livelihoods of the individuals but also the respective business firms, thus fitting in the wider country vision aimed at elevating Uganda to the middle income status by 2040. For small firm owners who are adults, which is largely the case of the majority of the respondents as indicated in the demographic statistics

of this study and other studies (e.g. Eyakuze et al., 2013; UBOS 2010), the adult educational institutions that use mature entry schemes need to be utilized in advancing the education of the respective business owners. However, the choice of learning times should carefully be given utmost attention. Given that most of the core small business activities are run by business owners.

With the current findings that show that firm's asset values increase with education level, business owners with different education qualification need varied business development support. For those whose education level is still at lower level, the business development firms should focus on how to attain the asset levels that give the appropriate financial worthiness, while for the owners with university degrees the focus should largely focus on how to sustain the financial worth, especially given that most SMEs in Uganda often fail on matters of firm growth, with disappointing reports from studies such as Bakunda (2008), Bakunda et al., (2013) and UBOS (2010) among many others that reveal high failure (death) rates of small and medium enterprises in Uganda.

With existing evidence that small firms greatly support the large entities as noted by Wamono et al., 2009), the large companies should not only concentrate at payment of the goods and services the small firm offer to the large entities, but should also synchronize their specialized trainings to fit their partner small firms. Thus, private (small) – private(big) enterprises education and trainings need to be largely encouraged so as to expand on the small firms' human capital, alleviate the tendency of small firms to fail, thus sustaining the financial worth of small firms and indirectly the big ones.

CONCLUSION

The secondary education and university education levels are seen to advance more financial worth of small firms. This dispels the common inclination in Uganda that most firm operators that are less educated have more financial worthiness that appears to fuel the anecdotal arguments that the educated suffer from the paralysis of analysis when it comes to the business decisions especially those that related to asset accumulation. Though this study reveals post-secondary education appears to not greatly influence financial worth of small firms, the university degree education level, secondary and primary education levels significantly influence financial worth more strongly.

LIMITATIONS AND FUTURE RESEARCH

The basic education levels and the varied university degree education were considered in this study. In-depth studies of the different educational levels that relate to business curriculum are needed especially on post-secondary and university degrees for small business owners could explain the low effect of post-secondary qualifications compared to secondary education. More studies on the knowledge obtained from the sponsored business development trainings in comparison with schooling education need to be examined on the influence of the small firm financial worthiness. To further extend our understanding, comparative studies on large and small firms taking education levels as predictors on firm financial worthiness are needed. The current study did not dichotomize the influence on asset accumulation derived from free and privately sponsored education. There is need for anatomical investigations of the influence of free and privately sponsored primary and secondary as well as tertiary education on firm asset accumulation. This will enhance our understanding on the public and private basic educations and firm performance.

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