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Firm Age and Performance in Kampala, Uganda: A Selection of Small Business Enterprises

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Abstract

This study sought to find out the effect of firm age on performance, using both financial (net profit before tax) and nonfinancial (operational) performance indicators. An ex post facto, descriptive correlation, descriptive comparative and cross-sectional survey design was used. A sample of 409 firms was used with age ranges in six categories. Cronbach's Alpha reliability coefficient test (α=0.884) and the Content validity ratio (CVR) for the instrument on performance was 0.93 (Mean CVR=0.93). Two hypotheses were tested: (i) there is a significant difference between firm age and the level of performance and (ii) there is a significant positive relationship between firm age and performance. Applying parametric statistical techniques, on way ANOVA and Regression analysis, both hypotheses were accepted. The effect size was revealed as financial (η2 = 0.99) and non financial (η2 = 0.07). The study also found that both financial and non financial indicators could be used as effective measures of performance. Suggestion was made that emphasis should not only be placed on starting up, but also on the sustainability and longevity of the firms that are operational in Kampala, Uganda.

Keywords: Small business, firms, performance measure, Kampala, Uganda

1.0 Introduction

In this study a firm is conceptualized as a small business enterprise that employs a minimum of 5 people and a maximum of 50 people, with annual sales turnover of maximum 360 million Uganda shillings and total assets of maximum 360 million Uganda shillings (MFPED, 2008). In Uganda like most other African and developing nations, small businesses are the vital drivers

of economic growth (Rwakakamba, 2011; Ocici, 2006). This means that efforts aimed at enhancing their survival and growth, directly affects the national economic development. It is however documented in Uganda that high failure rates of business are prevalent (Walter, Balunywa, Rosa, Sserwanga, Barabas & Namatovu, 2004; Rooks, Szirmai & Sserwanga, 2009) although it is ranked as one of the most entrepreneurial countries in the world (GEM, 2009).

Apolot (2012) affirmed that small business performance is an essential feature for their survival and sustainability, where performance factors such as innovation and organizational learning have been found to spur business expansion, technological progress, and wealth creation in both start-up and existing firms. All these factors are directly or indirectly beneficial to the economy and can help mitigate the high levels of unemployment (AAU, DRT, UNNGOF, 2012). Through Enterprise Uganda, Ministry of Tourism Trade and Industry in collaboration with the Private Sector Foundation Uganda several initiatives have been put in place to facilitate small business performance and promote their expansion (Apolot, 2012). This study therefore seeks to explore the effect of firm age on firm performance in terms of financial and nonfinancial measures, in the context of Kampala Uganda, using a selection of small business enterprises.

The paper is structured as followed: section two consists of the reviewed literature, which explains variables and states the hypothesis of the study; section three consists of the methodology; section four displays and explains the key findings, analysis and hypothesis testing of the study; section five provides the conclusions.

2.0 Literature Review

2.1 Firm Age

Most studies (Pástor & Veronesi, 2003; Morgan, Kaleka & Katsikeas, 2004; Loderer & Waelchli, 2010; Abu Bakar 2011; and LiPuma, Newbert & Doh, 2013) that look at business age focused on the number of years that the business has been in operation legally. Morgan, et al (2004) defined firm age in terms of the number of years firm has been engaged in exporting operations. Abu Bakar (2011) categorized firm age into three groups: enterprise operating less than five years, those operating from six to ten years, and more than ten years respectively. While LiPuma, et al (2013) focused on just new firm and old firm. Hui, Radzi, Jenatabadi, Kasim and Radu (2013) measured firm age as the number of years elapsed from the establishment of the business. Loderer and Waelchli (2010) emphasized that measuring age bigger frims is not always straightforward, due to factors such as mergers and relistings. Similar to Hui, et al (2013) and Loderer and Waelchli (2010), this study categorized age of the business in intervals. Firms in this study are divided into six categories: 1- 5years, 6 -10 year, 11-15 year, 16-20 years, 21-25 year, 25 years and above.

2.2 Performance

Several scholars define performance as an increase in business revenues, sales, profit or market share (Carland & Carland, 2003). Ruigrok and wagner (2003) suggest that performance can be conceptualized on two core dimensions: financial and operational (nonfinancial). They assert that financial performance may be further divided into measures based on accounting data (reflecting past performance) and those grounded in capital market values (reflecting investors' expectations of future performance). Contrary to financial performance,

operational performance indicators do not reflect direct monetary outcome but establish fundamental processes that ultimately result in financial performance (e.g. financial management practice, personnel, systems and process capabilities). Esaete (2005) conceptualized performance on the basis of operational performance. She defined performance of a business as how well or poorly a business is doing vis-a-vis the owner/manager's set objectives. She asserts that good performance is crucial to a business' success and once a business is not performing well, certain danger signals such as poor profit and growth will exhibit them. Moini (1995) confirmed that organizational performance was conventionally measured using financial data such as returns on investment, revenue growth and market share and therefore suggested the addition of qualitative measures to provide insight into organizational processes and outcomes. Geene and Brown (1997) and Audretsch and Klepper (2000) however argued that firm performance (through attainment of set goals and target) could be even a more important measure than firm profitability and other financial indicators especially in the case of small businesses. Ittner and Larcker (2000) also stated that non-financial measures can be better indicators of future financial performance; however they also pointed out the drawbacks, which include overcome rating each performance measure. Dele (2012) gave a more liberal view by not undermining financial or non financial measures, but by recommending them as possible substitutes. Chong (2008) offered a compromise by forwarding the used of both financial and nonfinancial data to measure performance. This study adopts both financial (difference in net profit over two year period) and operational (strategy & direction, sales & marketing, team effectiveness, financial management, systems & processes, personal satisfaction) indicators of performance as suggested by Chong (2008) and to some extent, Loderer and Waelchli (2010).

2.3 Firm Age and performance

Researchers have begun to pay more attention in the role of age on performance of surviving firms (Coad, Segarra & Teruel, 2013). Studies have investigated age effects on young firms (Stam & Wennberg, 2009), performance and behavior across firms of different ages (Coad, et al, 2013), firm age and wage payment levels (Brown & Medoff, 2003). Hui, et al (2013) however pointed out the studies on organization age and performance is scarce in less developed parts of the world. More so among small businesses and in the context of Africa. From the perspective of a small business, a high level of performance is usually a critical prerequisite for its longevity (Storey, 1994). Past studies have shown that firm performance is a many-sided experience, as Delmar, Davidsson and Gartner (2003) revealed that firm performance patterns are connected to the demographic characteristics of firms such as firm age. Phillips and Kirchhoff (1989), agreeing with Storey (1994) and Esaete (2005) discovered that young firms that display high performance levels have twice the probability of survival as their less performing counterpart. They concluded that small businesses' performance is often closely linked with firm overall success and survival (Johannisson, 1993). It is therefore hypothesized that:

H_1: There is a significant difference between firm age and the level of performance.

Though there are studies that show the different relationship between business age and performance. The relationship between firm age and firm performance is well documented but presents contrasted results (Durand & Coeurderoy, 2001). Studies such as Coad, et al

(2013), Ismail, Che Rose, Abdullah and Uli (2010), Gaur and Gupta (2011), and Ericson and Pakes (1995) support the positive relationship, arguing that experience through age helps the business to perform better. Coad, et al (2013) found both positive and negative relationships. They found that ageing businesses experience increasing levels of productivity, profits, larger size, lower debt ratios, and higher equity ratios. On the other hand they also found that older businesses have lower expected growth rates of sales, profits and productivity, they have lower profitability levels. While studies such as Agarwal and Gort (2002) pointed out a negative relationship, arguing that there can be 'decay' as a result of age leading to poor performance. Pastor and Veronesi (2003) reported a similar effect. Loderer and Waelchli (2010) found that as the firm ages its performance drops, thus firm age having a negative effect on performance. This paper therefore hypothesized that:

H_2: There is a significant positive relationship between firm age and performance.

These empirical evidences that reveals there are contradictory results when it comes to firm age and performance and the limited research on small business age and performance, more so in the African context has inspired the interest for this study.

3.0 Methodology

This study adopted an ex post facto, descriptive correlation, descriptive comparative and cross-sectional survey design. The target population in this study involved 360,000 legally registered small businesses in Kampala (MFPED, 2008). The Slovin's formula was thus given as by Serakan (1992) cited in Dionco-Adetayo (2011): n = N / (1 + N × e2). Where *n* is the sample size, *N* is the population size, and *e* is the margin of error. Applying 5% error margin Slovin's formula recommended a minimum sample size of 400. In order to lessen the low response rates common in research of this nature (Forsman, Hinttu and Kock, 2002; Hashim and Hassan, 2008) 600 questionnaires were sent out to respondents. The total tally of attained response from the respondents was 409; this exceeded the minimum requirement of 400 as computed by the Slovin's formula. The overall response rate was 68.2% (409), thus meeting (and exceeding) the requirement as indicated by Holbrook, Jon, and Alison (2007), that emphatically stated that response rate lower than 54% were minimally less accurate.

Data was collected using standardized questions relating to the demographic characteristics of respondent and business performance (financial and non financial). The Cronbach's Alpha reliability coefficient test (α=0.884) exceeded the reliability coefficient of 0.70 which was stipulated by Creswell (2003) as acceptable in most social science research. The Content validity ratio (CVR) for the instrument on performance was 0.93 (Mean CVR=0.93). Lawshe (1975) argued that in the case of eight (8) subject matter experts, such as adopted in this study, a minimum CVR value of 0.75 is acceptable; this is also confirmed by Allahyari, Rangi, Khosravi and Zayeri (2011).

The more potent parametric statistical techniques were used due to the fact that the data met the stipulated requirements, such as normal distribution and sample size exceeding 30 respondents (Pallant, 2009). One way ANOVA was used to test hypothesis one (H_1); A simple regression analysis to test hypothesis two (H_2).

4.0 Findings

4.1 Demographic Profile

Sole proprietorships made up a majority of 52.8% of the responding firms, with partnerships, 32.6% and (Limited) Companies were the least represented with 14.5%. A cumulative percentage of 92.2 of the firms employ less than 30 people each and only 2.1% or 4 exceed 49 employees (having 50 employees). Most businesses have 5 to 9 employees (46.6%), followed by those employing 10 to 19, accounting for 33.2%. Though in terms of employees, small businesses employee 5 to 50 employees, the facts point to fewer small businesses employing close to 50 employees and more employing closer to 5 employees. Industry/sector types consisting of hardware and machinery accounted for 17.1% respondents; followed by the food and beverages which makes up 15.0% respondents; printing and publishing sector accounted for the least represented respondents at 5.7% respondents.

4.2 Difference between firm age and the level of performance

One way ANOVA of Firm Age and Performance (in terms of Financial and Nonfinancial)

		Sum of Squares	df	Mean Square	F**	Sig.**
NPBT (FY2-FY1)	Between Groups	8.058E17	5	1.612E17	8.879	.000
	Within Groups	7.315E18	403	1.815E16		
	Total	8.121E18	408			
Non-Financial Performance	Between Groups	3.166	5	0.633	5.858	.000
	Within Groups	43.561	403	0.108		
	Total	46.726	408			

**Significant at 0.01

A one-way between-groups analysis of variance was conducted to explore the impact of Firm age on performance, in terms of financial performance (NPBT FY2-FY1) and nonfinancial performance. Firms were divided into six groups according to their age (Group 1: 1 to 5; Group 2: 6 to 10; Group 3: 11 to 15; Group 4: 16 to 20; Group 5: 21 to 25; Group 6: 26 and above).

There was a statistically significant difference at the $p<.01$ level in both financial [F=8.88; $F_{5,403;0.01} = 3.06$] and nonfinancial performance [F =5.86; $F_{5,403;0.01} = 3.06$] indicator scores for the six age groups. Despite reaching statistical significance in both cases, the actual difference

in mean scores between the groups was medium in the case of nonfinancial performance. The effect size, calculated using eta squared (η^2), was 0.07. While in the case of financial performance (NPBT), the difference in mean scores was large (η^2 = 0.99). Using both performance indicators, a significant difference was registered between firm age and performance. This finding rejects the null hypothesis and accepts the alternative, thus confirms hypothesis (H_1) that states: There is a significant difference between firm age and the level of performance.

4.3 Relationship between firm age and performance.

Simple Regression results of Firm Age on Performance (in terms of Financial and Nonfinancial)

	Net Profit Before Tax (FY2-FY1)			**Nonfinancial Performance**		
Variable	**B**	**SE B**	**β**	**B**	**SE B**	**β**
(Constant)	-2.883E7 (-2.015)	1.431E7		3.291 (94.319)	0.035	
Firm Age	3.638E7 (5.897)	6.169E6	0.281**	0.068 (4.503)	0.015	0.218**
R^2		0.079			0.047	
F		34.775**			20.276**	
Observations		409			409	

t values in bracket; **Significant at 0.01

Table above reveals that the explanatory variable (firm age) explains only 7.9 percent of the variance in financial performance (NPBT) and 4.7 percent of the variance in nonfinancial performance. Though this might appear low, but according to Higgins (2005) it is a common fact in physics and engineering research for R^2 values greater than 0.9 to be expected; due to the dynamics social sciences however, researchers are delighted with statistically significant R^2 values as low as 0.2 or even lower. The same sentiment was echoed by Newman and Newman (2000) among other social science scholars. The table confirms a positive relationship and in both cases (financial and nonfinancial performance) the models were significant. This finding further confirms the hypothesis (H_2) that states: There is a significant positive relationship between firm age and performance. The null hypothesis is rejected and the alternative accepted.

5.0 Conclusion

In this empirical analysis, we sought to provide new evidence on the effects of firm age on performance in the context of Kampala, Uganda. The finding of the study reveals that there is a significant difference in both levels of performance of firsm on the basis of their age and the age of the firm has a significant positive effect on the performance of this firm. The finding confirms the claims made by Ismail, et al (2010), Gaur and Gupta (2011), and Ericson and Pakes (1995) that experience through age helps the business to perform better. The study is not in agreement with Loderer and Waelchli (2010), Pastor and Veronesi (2003) and Agarwal and Gort (2002), all of whom suggested a negative relationship between firm age and performance. The study also confirmed that both financial and nonfinancial measures of performance are effective as opined by Dele (2012) and Chong (2008), since in this study they both yielded similar results.

It is therefore suggested that emphasis should not only be placed on startups, but also on the sustainability and longevity of the firms in Kampala, Uganda. This can be done through management support systems, such as financing, management training and government policies such as taxation. Since firm age significantly and positively influences performance, a firm that fails in its early years will surely not see improved performance or create more jobs for that matter. This might even suggest that the number of business startups is not as important as the number of businesses that remain in operation.

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