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## Determinants of Investing in Operating Capacity Decisions Among Tourist Facility Operators Based in Kumasi Metropolis

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### ABSTRACT

Decisions of managers relating to investments made on the operating capacities of firms have become a critically important issue in the corporate life because of their impact on firm's value, financing source availability, earning potential and related issues. Based on prevailing view(s) in extant literature associating inherent risks and bankruptcy with capital structure of firms, this current study argued that the bankruptcy risks should be traced to inability of firms to invest in adequate operating capacity so as to generate adequate turnover. Apparent lack of much empirical study to integrate investing in operating capacity with all these variables, suggests the need for this study. Based on the foregoing argument, this study integrates resource-based view, internalization and portfolio theories as the theoretical lens to examine the relationship between turnover, financing and cost of finance, and investing in a firm's operating capacity. The results of this study based on binary regression of data generated from a survey of 100 tourist facility operators revealed that annual turnover, age of the business, financing availability and financing cost together and/or on their own likely to influence tourist facility operators' decision to invest in their operating capacity. The study's contributions to previous financing, investment and capital structure literature is well noted.

**Keywords:** Investing in operating Capacity; decisions; tourist facility operators; Kumasi Metropolis.

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### 1. Introduction

The recent realization that private sector investment benefits an economy more than that of public sector investment has led to preference for private investment to public sector investment (Agyei, 2017). According to Agyei (2017), this observed trend, especially within the Sub-Sahara Africa economies, has necessitated the need to revisit investment and related issues; the purpose of which is to unearth new knowledge and approaches to investment management that impacts a firm's value positively. Investment and investing activities, including acquisition of operating and/or production

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capacity of firms, provides great opportunities for the varying stakeholders of corporate firms to earn income and create value or wealth.

Furthermore, investing in a firm's operating capacity does not only impact a firm's value but also the quantum, availability and timing of a firm's distributable values (that is the firm's solvency). Most solvency or corporate failures, including bankruptcy and related problems in corporate organizations, have their roots in the inability of directors of firms to utilize available scarce resources or procure them strategically. This underscores the importance of investing in a firm's operating and/or production capacities. For instance, according to Chen (2012) as reported in Munjal, Requejo and Kundu (2018), Apple Corporation's investment in production capacity in China produces a turnover that yields about \$14 million profit each year. The question, however, is: how do firms generate and/or guarantee profit or income? The obvious answer is investment.

Despite the importance of turnover, financing and investment in a firm's operating capacity on earning potential and value, there has not been much empirical study that integrates all these variables. Most prior studies have focused on capital structure, cost of capital, a firm's value and performance, corporate failure, among others, in isolation. In addition, most of these prior studies ignored turnover: meanwhile it is its residual value that produces the desired profitability and a firm's value, that remains their focus. It could be averred that, without adequate and appropriate investment in the operating capacity by firms, little can be achieved in terms of liquidity to support other aspects of the a firm's activities including dividend function, working capital management and future expansions, among others. Thus, for a firm to avoid both default and failure bankruptcies, it is important that it produces necessary revenue and profitability. Similarly, a firm cannot support its shareholders' value maximization agenda without these. This therefore highlights importance of investing in operating capacity of firms.

Although previous studies recognized value of the firm as the main motivation that underpins most interactions and exchanges within corporate organizations (Gbadago, 2018), they failed to identify one of its principal drives: that is, revenue generated by investment in operating capacity. Furthermore, a review of existing literature suggests capital structure and investment researchers are yet to integrate key finance and investment concepts such as turnover, financial and related costs, investing in operating or production capacity and their possible effect on a firm's value (see Shibata & Nishihara, 2018). This suggests the inconclusive nature of prior studies on capital structure and corporate failures. This may explain the counter-arguments and/or opposing views prevailing in literature on most of the above mentioned concepts.

On the basis of the foregoing, this current study argues that concerns and views prevailing in extant literature about inherent risks (or bankruptcy concerns) as being associated with capital structure of firms, could be linked to the inability of firms to invest in adequate operating capacity so as to generate adequate turnover. More than sufficient revenue may help pay off cost of capital, finance working capital needs and related activities so as to avoid overtrading and finance further expansion, be it internally or externally (see Gbadago, 2018; Shibata & Nishihara, 2018; Watson & Head, 1998). We therefore posit that a firm's value creation and maximization schema cannot be sustained without thorough understanding of these variables. Based on the foregoing discussions, the purpose of this current study is to examine the relationship between turnover, financing and cost of finance, and investments in a firm's operating capacity.

## 2. Theoretical bases

In studying this identified research gap and variables (that is, turnover, financing and cost of finance, and investments in a firm's operating capacity), this current study integrates resource-based view, internalization and portfolio theories as the theoretical lens in understanding their relationships and their effects on firm's value. Thus, from a resource-based perspective, a firm's ability to generate more turnover, such that it can use the surplus to finance itself and other critical resources and activities, is dependent on the investment they made in their operating capacity (Munjal et al., 2017; Barney, 1996). Investing in these assets will guarantee a firm's continual competitive advantage and survival in its chosen market space. Hence, there may be an increased market share and consequential positive effect on cash flow. Increased market share, holding all other things constant, may amount to a continuous increase in both revenue and profits. Thus, investment in the operating capacity of firms

guarantees long-term survival and firm performance as this is able to make the firm more responsive to manage its risk-return profile, achieve the optimal capital structure and hence firm value.

Similarly, internalization explains the rationale for the capital outlay or expenditure required to invest in the firm's operating capacity and related activities (Munjal et al., 2017; Buckley & Casson, 1976). The decision to approve and allocate finance for an identified operating capacity project is a question of adequacy of the generated revenue from the past and expected projects. That is, so long as past investments and/or proposed projects are able to produce enough cash flow, they will remain appealing. The emphasis is on cash flow due to the fact that it is out of the cash flow, that capital outlaid could be recouped. Similarly, the required rate of return expected to compensate the providers of finance, as well as retained earnings necessary to finance working capital requirements and related expansions are all dependent on the quantum and timing of this said cash flow. Risk, as associated with capital project investment (that is financing operating and/or production capacity) and its related cost of capital (otherwise known as bankruptcy) concerns have their threshold in Markowitz's (1958) portfolio theory. From the viewpoint of the portfolio theory, investments that meet acceptance criteria yield more than adequate cash flow; hence not only appeal to management for financing but also avoids bankruptcy concerns.

However, investment in operating capacity as critical resource for strategic and competitive advantage reasons, requires financing, which most of the time is not readily available within the firm. Consequently, the firm must adopt strategic options of co-operating, forming an alliance or being dependent on key stakeholders who own or control these financial resources and, hence, must compensate them via cost of capital. Cost of capital has remained a critical decision variable when it comes to sourcing for finance and investment decisions in firms. Similarly, it is a key determinant that influences the finance providers' decision to make finance available to firms for investment.

Financing and investing functions, as part of the four most critical functions that occupy much of corporate organizations and their managers' attention, is expected to address this (Gbadago, 2018). The investing function in most firms, especially long term capital assets acquisition, results in securing adequate operating and/or production capacities of firms. Thus, it helps firms to become more responsive and, in turn, enhances their earning potential, which defines their profitability and, hence, value.

### **3. Review of empirical literature**

Literature suggests that the basic objective of firms and their stakeholders, irrespective of what name they use to refer to it, is profit or income (Gbadago, 2018). This can only be earned if goods are produced and sold or services rendered by firms. However, these can only happen if corporate organizations have the capacity to operate or produce the goods and services. These require that firms invest in their operating and production capacities. Thus, firms can more than adequately generate income, finance operating activities and capacities and, at the same time, retain enough for compensating the providers of scarce resources.

Substantial evidence (both empirical and theoretical) available in this domain suggests that firms cannot invest without sourcing for finance and incurring corresponding costs (Capital structure of firms, as it is, mostly refers to). It is obvious that, without these, firms may not be able to invest in their operating or production capacities. Capital structure of firms, and its proxies (namely, financing options and related cost of capital) have been observed as key determinant of a firm's value. In addition, availability of operating capacity in a firm guarantees the firm their critical cash flows and sales necessary for financing the working capital needs as well as servicing maturing obligations and, hence, the ability to earn the desired profitability. Impliedly, a firm's value and its maximization cannot be achieved without investing in its operating capacity.

Furthermore, financing and associated costs have been ascribed to the risk-return profile of firms as well as their bankruptcy (default as seen in financial distress or failure leading to liquidation) based on Markowitz's (1958) portfolio theory. A firm's risk-return dynamics give an indication of the entity's ability and willingness to invest. Thus, the ability to invest and generate adequate revenue as well as attain a certain level of profitability is an indication of the fact that their liquidity position may support such decisions and/or actions. This may be seen as insurance for further investing activities of

the firm. This is critical to firms and their varying stakeholders as it is fundamental to their complex interactions and motives.

Drawing on a prevailing body of knowledge in the domain of this current study, a conceptual framework of four determinants of a firm's decision to invest in operating capacity and underlying hypotheses is proposed as shown in Figure 1. Based on existing studies, we link financing sources availability, financing cost, age of the business and annual turnover to investment in operating capacity decisions of firms. We likewise demonstrate the direction of the relationships between these variables. We thus aver based on prior literature supported by the adopted theories that, availability of financing sources coupled with reduced financing cost, age of the business and annual turnover as contingent factors for investment in operating capacity decisions.

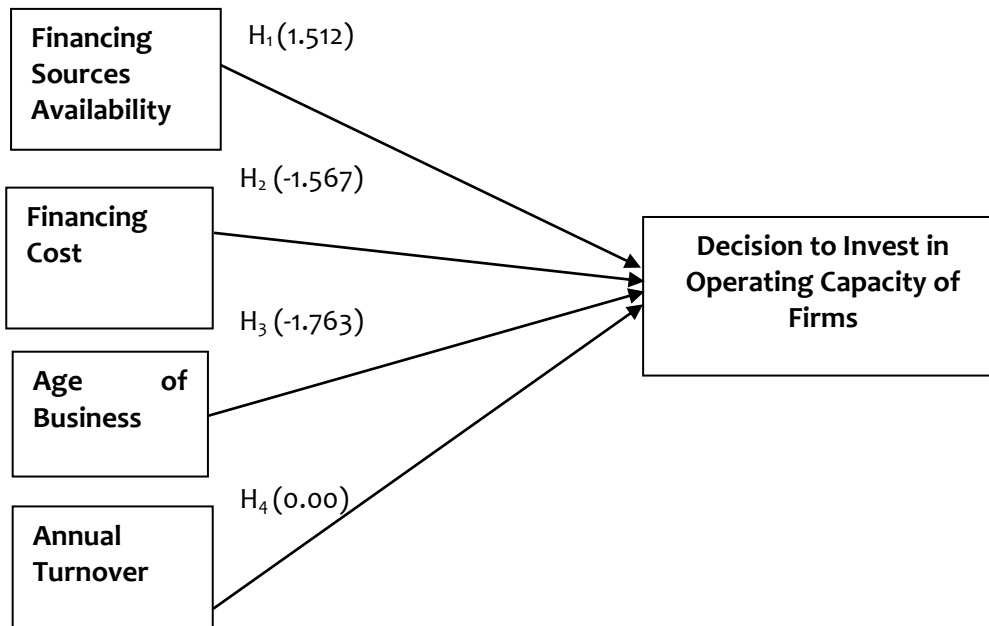


Figure 1: Conceptual Framework & Hypotheses.

Source: Authors' Construct based on prior literature

#### 4. Methodology

This study used a survey research design where a self-administered structured questionnaire was used as the data collection instrument based on assertions by Robertson and McCloskey (2002) and Babbie (2012) on the potency of the instrument in collecting data of high quality within the shortest possible time with minimal costs without the physical presence of the researcher. The data collection was part of a larger study conducted among tourist facility operators within Kumasi Metropolis, Ghana. The population consisted of respondents representing their entities. Overall, 100 usable sets of the instrument were used for the analysis. The above mentioned sample is seen as a reasonable size, large enough to permit the statistical analysis adopted for this study based on the Central Limit Theorem assumption about a sample of 100 or more (Grinstead & Snell, 2006; Opong-Boakye, Appiah & Afolabi, 2013; Gbadago, 2015; Gbadago, Morrison & Donkor, 2017). The data obtained were analyzed using regression with the help of SPSS version 21.

#### 5. Model specification

Data were analyzed using Binary Regression as well as correlation analyses as shown under empirical results and discussions. However the choice of this analytical technique for this study is as a result of the fact that the regressors of the model are binary (Anang, Dawuda, & Imoro, 2015) and its potency to predict categorical outcome using multiple categorical and/or numeric predictors. Guided by related prior studies, the logistic regression model is thus specified as:

$$\ln \left( \frac{P_i}{1 - P_i} \right) = \lambda_0 + \lambda_1 \text{Turnover} + \lambda_2 \text{Age of the business} + \lambda_3 \text{Financing availability} + \lambda_4 \text{Financing Cost} + \mu \quad (1)$$

where,

P<sub>i</sub> = is the probability that a respondent tourist facility operator will invest in the operating capacity of their entities or not;

μ = Error or random disturbance term;

λ<sub>0</sub> = Constant term;

λ<sub>1</sub>... λ<sub>10</sub> = The logistic regression coefficients estimated

Thus regression analysis was carried out between each dependent variable (decision to invest in operating and/or production capacity) and the independent variables such as turnover, age of the business, financing availability, and financing cost as based on conceptual frameworks as shown in Table 1.

### 6. Results and discussions

The results of this study based on data generated from the responses of the study respondents were analyzed using statistical analysis supported by SPSS version 21 as accordingly presented and discussed under this section.

Table 1.

*Specification of variables for the model.*

S#	Variables	Description of measurement item	Measurement
Category A: Dependent Variable			
1.	Decision to invest in operating capacity of an operator	Capital investment projects	(Yes; No)
Category B: Independent Variable			
2.	Age of the business	How long have you been in operation as business entity	0-5yrs; 6-10yrs; 11-15yrs; 16-20yrs; 21yrs & above
3.	Annual turnover	Total annual sales value	500K-600k; 600k-700k; 700k-800k; 800k-900k; 900k-1,000k; Above1,000k
4.	Financing cost	Interest or dividend paid to providers of finance	0-20%; 21-30%; 31-40%; 41% & above
5.	Financing availability	Sources of funding available for financing capital investments	Retained earnings; Extra funding from Equity owners; Bank borrowings; Others

Source: Author's Design, August, 2017

The Binary Logistic Regression model is as specified in equation 1. The variables are as shown in Tables 1 to determine the Odd likelihood of the independent variables influencing the decisions of the tourist facility operators to invest in operating capacity as reported above. The Binary Logistic Regression was performed using the specified model. From Tables 3 and 4, the model and its variables are statistically significant in explaining the relationship as hypothesized and indicated in the conceptual framework as in Figure 1 and subsequently depicted in the model. The model's predictive potency is 36.10% and 27.10% in terms of Nagel Kerke R square and Cox & Snell R square values, respectively, with -2 log likelihood value of 106.921 as reported in Table 2. The predictive potency is further confirmed by Hosmer and Lemeshow's test with a value of 30.464, which is statistically significant (see Table 3). Accordingly, the model overall accurately classify the tourist operators into those who are likely to invest in their operating and/or production capacity so as to enhance their earning potentials; and those who are not. As such, the proposed model has predicted about 68% of the tourist operators' likelihood to invest (see Table 4).

Table 2.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	106.921 <sup>a</sup>	0.271	0.361

a. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

Source: Author's Design, August, 2017

Table 3.

Hosmer and Lemeshow Test.

Step	Chi-square	Df	Sig.
1	30.464	7	0.000

Source: Author's Design, August, 2017

Table 4

Classification Table<sup>a</sup>

Observed	Predicted		Percentage Correct
	Capi		
Step 1	No	Yes	
	Capi	No	40
	Yes	24	28
	Overall		68
	Percentage		

a. The cut value is .500

The result of the regression assessing the hypothesized relationships is as shown in Table 5. Thus, the hypothesized predictor variables (namely, age of business (in years), sources of finance (in Ghana cedi), cost of finance (as percentage (%) of financing received), annual turnover (in Ghana cedi)) as well as the constant, correctly predicted the relationship as specified in our proposed model. The result revealed that all the independent variables influence the operators' decisions in regard to investing in their operating capacity. Although the co-efficients in column B i.e., age of business (-1.763) and cost of finance (-1.567), are statistically significant in predicting the investment decisions of operators, they are negatively related. However, sources of finance (1.512), annual turnover (0.000) and constant (0.345) are all positively related to the dependent variable (see Table 5). Thus, the explanatory variables determine a firm's decision or otherwise to invest in operating and production capacity of tourist facility operators. The above results are consistent with the views of prior researchers and scholars such as Gbadago (2018), Shibata and Nishihara (2018), Munjal et al. (2017) among others.

Table 5.  
Variables in the Equation.

	B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 <sup>a</sup> How long have you been in business	-1.763	0.770	5.239	1	0.022	0.171
Sources of capital for financing	1.512	0.559	7.305	1	0.007	4.535
Cost of Finance (or capital)	-1.567	0.563	7.746	1	0.005	0.209
Annual turnover	0.000	0.000	3.986	1	0.046	1.000
Constant	0.345	0.924	0.140	1	0.709	1.412

a. Variable(s) entered on step 1: How long have you been in business, Sources of capital for financing, Cost of capital, Annual turnover.

Source: Author's Design, August, 2017

## 7. Conclusions and recommendation

Based on the proposed objectives and hypotheses as shown in the conceptual framework (Figure 1), various analysis was performed to confirm whether the explanatory variables are able to predict the dependent variable. The results as reported in Tables 2 to 5 confirmed same. The result of this study has some theoretical and managerial implications as well as post fundamental questions to earlier studies and prevailing theories such as optimal capital structure and cost of capital and corporate failures.

Overall, the findings obtained in this current study enable the researchers to make several additional contributions to previous financing, investment and capital structure literature: first, it is shown that investing in operating or production capacity is a strategic option for firms from emerging markets to improve their performance and hence values; and second, the results highlight the importance of financing investment in operating capacity as a strategy for firms from emerging economies to avoid risks and bankruptcy concerns. Therefore, the findings are contrary to the orthodox academic perspective on bankruptcy and corporate failures, which has traditionally focused on optimal capital structure and cost of capital. From our findings, we confirm that organizations are moving away from the traditional view on capital structure, cost of capital and firms value.

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