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Impact of Internationalization on Firm Performance in Botswana

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Botswana Institute for Development Policy Analysis

BIDPA

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ABSTRACT

Internationalization can affect a firm's performance. This study determines how a firm's engagement in international business activities affects its performance in Botswana. The study uses the Ordinary Least Squares method to regress firm performance over the degree of internationalization index (DOI), a composite variable of export intensity, import intensity and FDI intensity and control variables, size of the firm and the industry in which the firm operates. The results show that there is a positive relationship between firm performance and the degree of internationalization. This implies that among other growth strategies, internationalization can be considered as an important strategy to improve firm performance. The policy implication of these results is that efforts should be made to assist firms to internationalize their operations as a way of improving their performance.

1. INTRODUCTION

Globally, international trade has grown at an unprecedented rate over the years. There have been numerous international trade reforms, including the elimination of trade barriers, tariffs, and quotas, which have encouraged the free movement of goods and services between countries. Moreover, technological advancement has contributed to the development of a global market where communication is faster and easier. These developments have opened domestic markets for international competition and owing to this, domestic firms have to increasingly seek means to strengthen their capacities as well as maintain competitive advantage. Similarly, due to the limited capacity of domestic markets, enterprises are forced to search for opportunities for growth and wealth creation by entering foreign markets.

The extent to which a firm is involved in international business is termed internationalization (Chelliah et al, 2010; Lu and Beamish, 2001). It involves expansion of an economic activity beyond the borders of the domicile economy (Mikic et al, 2016; Krasnika and Glod, 2013; Vilas-Boas and Suarez-Gonzalez, 2007). Earlier studies (Geringer et al, 1989; Grant 1987) show that firms adopted exporting as the most common foreign market entry mode. This is because it was seen as the fastest and easier way to enter foreign markets (Lu and Beamish, 2006). However, recent studies (Wiersema and Bowen, 2011) show that internationalization is more than just selling goods and services in foreign countries, but includes all foreign aspects of the firm's value chain. Just like exporting, firms may use importing as a driver of knowledge and technology transfer across borders. Firms can also invest abroad through mergers and acquisitions, establishment of subsidiaries and selling their stake to foreign individuals and companies.

By entering foreign markets, a firm may tend to enjoy a wider customer base (Hajela and Akbar, 2007). Since some foreign inputs may be cheaper than domestic ones (Tambunnan, 2007), a firm may benefit from improved cost efficiency. Investing in foreign countries also has the potential to promote organizational learning among firms. While satisfying the needs of a large customer base and responding to different competitors in the international market, a firm may enjoy tremendous learning opportunities (Pangarkar, 2008). Nonetheless, internationalization may pose challenges to the firm. Due to the extra costs of transportation, marketing and distribution in a foreign country, small and less profitable firms may find it difficult to enter a foreign market. Moreover, internationalization may exhaust the already stumpy managerial resources of small firms, since it requires a lot of synchronization.

In light of this, governments around the globe have been propelled to establish institutional frameworks that shape firm internationalization and develop an attractive business environment. In Botswana, the government has been progressively promoting trade and investment as well as encouraging export development with an endeavor to encourage

firms to enter foreign markets. Some of the institutions governing these endeavors include the Botswana Investment and Trade Centre (BITC), Business Botswana (BB) and the Private Sector Development Programme (PSDP). Furthermore, the government of Botswana promotes export-led growth through National Development Plans. The need for active participation in economic activities through the route of private foreign investment is highly emphasized among firms in Botswana.

Given the conducive environment created by the government and the regularly mentioned benefits of internationalization to the firm, it is surprising that most firms in Botswana are still reluctant to engage in international business practices. According to the World Bank (2010), the percentage of firms exporting in Botswana is only 9.6%, which is a clear indication that the participation of firms in the global market is low. Besides, it is only at a macroeconomic level that the impact of international trade has been studied extensively in Botswana (Mpatane and Choga, 2015; Sekakela, 2014; Fidzani et al, 1997). The impact of internationalization with particular emphasis on firm performance remains an under-researched area. Therefore, this study is devoted to determine how engaging in international business activities affects firm performance in Botswana, with the view of drawing policy recommendations on how best to enhance the domestic business environment through foreign market penetration.

The rest of the paper is organized as follows. Section 2 reviews the literature on the impact of internationalization on firm performance, while section 3 discusses the methodological approach used in the study. The findings of the study are presented in section 4, while section 5 presents the conclusions and policy implications.

2. LITERATURE REVIEW

A number of studies have previously attempted to answer the question of whether there exists a linear or non-linear relationship between internationalization and firm performance. They have however failed to reach a consensus regarding the linkage between the two. Some studies (Mikic et al, 2016; Graves and Shan, 2014; Hsu et al., 2013; and Chelliah et al, 2008) reported the linear (positive or negative) form of relationship between internationalization and firm performance. Others (Ficici et al, 2014; Vilas-Boas and Saurez-Gonzalez, 2007; and Tallman and Li, 1996) discovered a non-linear (U-shaped, inverted U-shaped or sigmoid) form of relationship between internationalization and firm performance.

A positive relationship infers that the benefits of internationalization outweigh the costs hence positive returns, whereas a negative relationship implies that high levels of internationalization lead to negative returns. With a U-Shape form of relationship, it is assumed that firms initially experience negative returns due to costs of entering foreign markets. As the firm gets acquainted with the foreign market and gains international experience, its performance will increase and this explains the U-shape. On the other

hand, the principle of an inverted U-shape form of relationship lies on the fact that at low levels of internationalization, the benefits of expansion may outweigh the costs. However, as the firm engages in rigorous internationalization activities and enters more complex markets, the costs will outweigh the benefits, hence a decline in performance. Consequently, we consider both the linear and non-linear relationships in reviewing literature on internationalization and firm performance.

In their study, Mikic et al, (2016) demonstrated that internationalization has a positive impact on business performance of Croatian manufacturing SMEs. To prove that engaging in international activities helps maximize business opportunities, they implemented a multiple linear regression model to evaluate this relationship. In terms of the main independent variable, an index was used which consisted of both structural and performance indicators of internationalization. Business performance was also measured using an index which combined return on equity (ROE) and return on assets (ROA). It was found that both structural and performance indicators of internationalization had a positive effect on business performance.

In order to analyze the internationalization-performance relationship in the European agribusiness cooperatives, Heyder et al, (2011) applied a combination of the foreign sales index and the network spread index for measuring the degree of internationalization (DOI). The notion behind this was to capture both the depth and breadth of internationalization. The study deployed both the return on assets (ROA) and return on sales (ROS) to measure performance and it was found that internationalization has a significant positive impact on firm performance.

Chelliah et al, (2010) also demonstrated that internationalization relates positively with firm performance. Their study combined the average sales growth, return on sales and staff turnover rate to formulate an index of performance. An index combining percentage of sales from international sources and the percentage of profit from international sources was also used to measure the degree of internationalization. The findings of the study showed a positive relationship between internationalization and firm performance of Malaysian SMEs. It was concluded that there is need to motivate firms to engage in international activities so as to increase their revenue from the international market.

Based on an analysis of 94 survey responses for Singapore SMEs, Pangarkar (2008) regressed a multi-item measure of performance over the degree of internationalization. The study used a composite variable that is a summation of return on sales, growth of sales, foreign profits as percentage of total profits, growth of profits, return on assets and experience gained as a result of entering foreign markets. The results supported the central argument that better performance goes hand in hand with investing in attractive environments. As a result, Pangarkar (2008) suggested that firms should indeed internationalize given that the benefits of internationalization outweighed the costs.

Lu and Beamish (2001) explored the performance implications of various internationalization strategies used by SMEs. Using 164 Japanese SMEs, they modelled return on assets (ROA) over exporting activities and foreign investment as the main independent variables. The joint effect of both exporting and foreign direct investment (FDI) strategies on firm performance was also considered and it was found that the positive impact of internationalization on performance extends primarily from the extent of a firm's FDI activity. In their other study, Lu and Beamish (2006) examined the differential effects of internationalization on both growth and profitability. It was found that exporting activity had a positive impact on growth, but a negative effect on profitability. On the other hand, FDI was found to be positively related with growth, but had a non-linear relationship with profitability.

Ficici et al, (2014) formally set up two models in order to capture the linear and curvilinear relationship between internationalization and performance of emerging market firms of the BRIC countries. Their study measured performance using return on assets (ROA), return on equity (ROE) as well as return on sales (ROS). The proportion of foreign sales to total sales (FSTS) was used as a measure of the degree of internationalization (DOI). The results supported the U-shaped form of relationship between performance and internationalization. It was found that at low levels of internationalization firm performance declines, but increases as the firm increases its level of internationalization.

In order to examine the relationship between internationalization and firm performance, Pan et al, (2010) regressed return on equity (ROE) as a measure of firm performance over foreign sales to total sales (FSTS) and the number of regions in which the firm operated. Firm size and debt ratio were also included in the model to control for other factors that might have an effect on firm performance. The study found an inverted U-shape relationship between regional diversification and firm performance. That is, the benefits of regional diversification increased to a certain threshold after which they declined and the firms experienced negative returns.

Hsu et al, (2013) demonstrated that internationalization alone cannot influence firm performance. Their study examined the impact of Chief Executive Officer (CEO) attributes of 187 Taiwanese SMEs as moderating factors of the internationalization-performance relationship. The argument was that CEOs play a vital role in the internationalization of SMEs, and their attributes should therefore be included in such analysis. In addition to integrating foreign assets to total assets and foreign sales to total sales to form a composite measure of internationalization, the CEOs age, tenure, educational level, international experience and duality were included as moderators. In order to capture the management effectiveness and efficiency, ROA was used as a measure of performance. The study found that the differences in CEO attributes may result in varying performances, even in two firms with the same level of internationalization.

3. RESEARCH METHODOLOGY

3.1 MODEL SPECIFICATION

In line with previous studies (Lu and Beamish, 2001; Mikic et al, 2016) modelling the impact of internationalization on firm performance, this study adopts a multiple regression analysis using the Ordinary Least Squares (OLS) method. The empirical model is specified as:

$$P_{j} = \beta_{0} + \sum_{i=1}^{n} \beta_{i} X_{ij} + \varepsilon_{j}$$

Where: P_j denotes performance for firm j, X_{ij} represents the value of explanatory variable i for firm j, β_0 and β_i are parameters to be estimated and ε_j is a random error term. The variables used in the model are as defined below.

Firm Performance

Consistent with the literature (Ficici et al, 2014 and Heyder et al, 2011;) and availability of data, return on sales (ROS) is used as a proxy for firm performance. Return on sales is an accounting based measure which is often referred to as the operating profit margin. It is used to evaluate the operational efficiency of a firm by analyzing the percentage of its revenue that is converted into profits, i.e. it shows the profit earned per unit of turnover (Heyder et al, 2011). Compared to other accounting based measures like return on assets (ROA) and return on equity (ROE), ROS is preferred because sales are expressed in more current monetary terms than are assets and equity.

Internationalization

This study adopts an index to measure the degree of internationalization (DOI) of the firm. Selected variables to form the index include export intensity, import intensity and foreign direct investment (FDI) intensity. Export intensity captures the level of engagement in exporting activities by the firm. The study uses the proportion of foreign sales to total sales (FSTS) to measure this variable. Import Intensity accounts for the firm's level of engagement in import activities. We use the proportion of foreign inputs to total inputs to measure this variable. FDI intensity measures the firm's level of engagement with international stakeholders. We use the percentage of shares in the firm owned by foreigners to proxy this variable. A simple average of these variables was taken to form an index of internationalization.

Control Variables

In order to control for other factors that could have a bearing on firm performance, this study includes firm-size and industry as control variables. Firm-size is a continuous variable measured by the number of employees in the firm, whereas industry represents the sector in which the firm operates. This is a categorical variable divided into three industries; manufacturing, retail and other-services. A detailed definition of the variables is as shown in Table 1.

Table 1: Definition of variables used in the model

Variable	Definition		
Dependent Variable			
Return on Sales (ROS)	The ratio of net income to total sales		
Independent Variable			
Degree of Internationalization (DOI)	Composite variable that is an index of: export intensity, import intensity and FDI intensity. Export intensity is the proportion of foreign sales to total sales (FSTS); import intensity is the proportion of foreign inputs to total inputs and FDI intensity is the percentage of shares in the firm owned by private foreign individuals, companies or organizations		
Control Variables			
Size	Number of employees in the firm		
Industry			
Manufacturing	1 if firm operates in the manufacturing industry, 0 otherwise		
Retail	1 if firm operates in the retail industry, 0 otherwise		
Other-Services	1 if firm operates in other services, 0 otherwise		

3.2 DATA AND DESCRIPTIVE STATISTICS

This study uses data from the 2010 World Bank Enterprise Survey to examine the impact of internationalization on firm performance in Botswana. The data has a sample of 268 firms spread across large, medium and small enterprises. Firms in the sample are also spread across the manufacturing, retail and other service industries. The data captured firms that are involved in various internationalization strategies including exporting, importing and engagement in foreign direct investment activities. As shown in Figure 1, majority of the firms do not engage in international business activities. Only 12% of the firms were involved in export activities. Similarly, only 29% of the firms were engaged



in import activities, with 82% of them involved in direct importing and only 18% in indirect importing. Likewise, only 49% of firms in the sample were engaged in foreign direct investment activities.

100% 71% 80% 51% 60% 49% 40% 29% 20% 12% 0% **Export Activities** Import Activities **FDI** Activities ■ Yes ■ No

Figure 1: Percentage of Firms Involved in International Business Activities

Source: Author computed from World Bank Enterprise Survey (2010)

Table 2 presents the descriptive statistics of variables used in the model. As seen, the average return on sales (ROS) is 52.52%. On average, the degree of internationalization for firms in Botswana is 21.64%. With regard to firm-size, the average number of employees for a firm is 77, with the smallest firm having no employees and the largest 3,600 employees. Turning to the business industry, majority (35%) of the surveyed firms operated in the retail industry, followed by other services industry (33%) and manufacturing industry (32%). The analysis of the distribution of internationalizing firms according to the industry in which they operate show that most exporting firms (49%) are in the manufacturing industry, followed by the other-services industry (32%) and the retail industry (19%). Interestingly, all importing firms are in the manufacturing industry. On the other hand, firms with shares owned by foreigners mostly trade in the retail industry (36%), followed by those in the manufacturing and other services industry (32%) respectively.

Table 2: Descriptive Statistics of variables used in the model

Variable	Mean	Standard Deviation	Min	Max
ROS	52.53	46.52	-336	100
DOI	21.64	21.46	0	99.67
Size	77.18	258.76	0	3600
Manufacturing	0.32	0.47	0	1
Retail	0.35	0.48	0	1
Other Services	0.33	0.47	0	1

^{*}n=268

4. EMPIRICAL RESULTS AND DISCUSSION

Table 3 reports the results of the OLS regression analysis. The results indicate that the contribution of independent variables to the explanation of firm performance is satisfactory (R-squared =0.19). The F-statistic is 14.90 and is significant at p<0.01, implying that the explanatory variables have a joint influence on firm performance.

Analyzing the impact of internationalization on firm performance, we find a positive and significant influence of DOI on ROS. Our results indicate that a 1 percentage increase in DOI will increase ROS by 0.33 percentage points. This conforms to a number of studies (Heyder et al, 2011; Chelliah et al, 2010) which showed that there is a positive relationship between internationalization and firm performance. The results further support Pangarkar (2008) who found that better performance goes hand in hand with investing in attractive environments. It is for this reason that we conclude that engaging in international business practices is positively related to firm performance. Hence among other growth strategies, internationalization can be considered as an important aspect of maximizing a firm's performance in Botswana.

On the other hand, firm-size which is measured by the number of employees does not have an influence on the performance of the firm. With regard to the industry in which the firm oprates, the dummy variable for manufacturing firms was omitted and served as a reference variable. Firms which operate in the retail industry attained 47.22 percent higher return on sales than those which operate in the manufacturing industry. Similarly, firms which operate in other-services attained 48.16 percent higher return on sales than those in the manufacturing industry. The results imply that operating in any industry other than manufacturing leads to a significant increase in a firm's return on sales. This could be explained by the small size of the manufacturing industry in Botswana which calls for intensification of efforts by the government towards the development of this sector.

Table 3: OLS estimates of Firm Performance (ROS)

	Coefficient	P-Value
Independent Variable		
Degree of Internationalization (DOI)	0.328	0.019**
Control Variables		
Size	0.008	0.418
Industry (Manufacturing omitted)		
Retail	47.215	0.000***
Other-Services	48.163	0.000***
Constant	12.599	0.070*
F-Statistic	14.90	0.000***
R^2	0.185	
Adjusted R ²	0.172	
Number of Observations	268	
Note: p<0.01*** p<0.05**	p<0.10*	

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5. CONCLUSIONS AND POLICY IMPLICATIONS

The main objective of this paper was to examine the impact of internationalization on firm performance in Botswana. It was found that internationalization positively affects firm performance. This result may be a guideline for firms in Botswana to embrace and practice internationalization, since a limited number of them engage in foreign business activities. Regardless of the several constraints they face, firms in Botswana should be encouraged to expand internationally. For example, the shortage of raw materials locally should provide incentives for firms to penetrate foreign markets. Likewise, the limited size of the domestic market should motivate firms to engage in export-led expansion so as to enhance their performance.

Generally, effort should be made to assist firms to expand their business across borders as a way of improving their performance. By using an index, the paper suggests that firms should employ different internationalization strategies to penetrate foreign markets so as to ensure increased growth. As a result, public policy must emphasize business diversification among firms in order to augment their operations. There is also need to further investigate other aspects of foreign expansion by the firm. Studies in future might explore effects of international marketing strategies, international technology as well as international certification on firm performance. Moreover, it may be important to consider the reverse causality between internationalization and firm performance since different firms may pursue different levels of internationalization given their performance levels.

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