

Enterprise Ownership, Market Competition and Manufacturing Priorities in a Sub-Saharan African Emerging Economy: Evidence from Ghana

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Abstract:

The economic liberalization policies being implemented by many African economies have led to significant efficiency and performance improvements in the activities of privately owned enterprises. This study examines the effect of the economic liberalization policies on the entrepreneurial development of domestic-owned enterprises. This is done by examining how the type of enterprise ownership (wholly domestic-owned enterprises vs. foreign–domestic joint ventures enterprises), and the increase in competition affect the manufacturing priorities of privately owned enterprises in Ghana. The results show that the enhancement in manufacturing efficiency and quality improvement in privately owned enterprises could be traced to the activities of foreign–domestic joint venture enterprises. However, as market competition increases, wholly domestic-owned enterprises emphasize manufacturing efficiency and quality improvement more than foreign–domestic joint venture enterprises. Implications for policy are discussed.

Keywords: economic liberalization | foreign–domestic joint ventures | manufacturing priorities | market competition | Ghana | wholly domestic-owned enterprises

Article:

1. Introduction

With the economic transformation of many emerging economies from state-controlled capitalism towards entrepreneurial capitalism, economic liberalization and privatization of state-owned enterprises (SOEs) are seen as central mechanisms in promoting efficiency, productivity growth, economic development and international competitiveness of enterprises. The implementation of economic transformation policies imply the transfer of corporate ownership from the state to private entrepreneurs and with it arise new challenges about the strategic organization of activities. While it has been shown in the international management literature that private ownership has a positive impact on foreign direct investment (FDI), overall economic development and investment liberalization in the host country (Doh et al., 2004), numerous studies in economics, finance, and public policy have demonstrated that the economic liberalization and privatization policies in emerging economies have resulted in improvement in

the efficiency and performance of privately owned enterprises (Vining and Boardman, 1992; Galal et al., 1994; Megginson et al., 1994; Boubakri and Cosset, 1998; D'Souza and Megginson, 1999).

The economic transformation policies have led to the creation of different forms of business organizations with the principal forms being wholly owned enterprises by local entrepreneurs and joint ventures (JVs) between foreign firms/entrepreneurs and local firms/entrepreneurs (Beamish and Delios, 1997; Demirbag and Mirza, 2000). Thus, the economic transformation policies have important effects on private entrepreneurial development in the local economy. Nevertheless, the differential effect of the various ownership forms of business organization in improving the efficiency and performance of privately owned enterprises have received little attention. Strategy researchers have focused on issues such as the examination of the impact of foreign acquisition and effects of country characteristics of privatized firms on firm strategy and performance (De Castro and Uhlenbruck, 1997; Uhlenbruck and De Castro, 2000); the performance differentials between SOEs and privately owned enterprises (Ramaswamy, 2001); and the effect of strategic choices in explaining the performance changes in newly privatized firms (Andrews and Dowling, 1998). International management researchers, on the other hand, have focused on investigating the factors that influence multinational corporations (MNCs) foreign entry mode choice and performance (Dunning, 1980, 1988; Anderson and Gatignon, 1986; Tatoglu and Glaister, 1998; Brouthers, 2002; Datta et al., 2002; Yiu and Makino, 2002), and the motives for the formation of international joint ventures (IJVs) (e.g., Contractor and Lorange, 1988; Glaister and Buckley, 1996; Boateng and Glaister, 2003).

The importance of the economic transformation to the development of corporate entrepreneurial capabilities in emerging economies raise questions relating to how privately owned domestic enterprises are increasing their efficiency, productivity and competitiveness in the newly created competitive business environment. This is especially crucial in Sub-Saharan Africa (SSA) where many countries are transforming their economies by privatizing SOEs and promoting private enterprise development through economic liberalization policies. The structural and economic changes taking place in these economies have changed the way business is conducted. They have heightened the level of market competition in most sectors of SSA economies and thus, necessitated the adoption of proactive strategies designed to increase efficiency, improve quality, react and adapt quickly to technological and product changes in the business arena, and meet the needs of customers through fast and reliable delivery systems. The need to examine the impact of the economic transformation on entrepreneurial development of local enterprises and their value creation activities in SSA is therefore long overdue.

The objective of this study is to explore the entrepreneurial development of domestic-owned enterprises as a result of the implementation of economic liberalization policies by examining the ownership source of the efficiency and performance improvements in the privately owned enterprises using data from the manufacturing sector in Ghana. Specifically, I examine how the type of enterprise ownership (wholly domestic-owned enterprises (WDOEs) and foreign–domestic joint ventures enterprises (FDJVs)) and the increase in competition affect the manufacturing priorities of privately owned enterprises in Ghana. I also examine the interactive role of enterprise ownership and market competition in influencing the differential emphasis placed on manufacturing priorities between WDOEs and FDJVs. Manufacturing priorities refer

to the emphasis that enterprises place on achieving manufacturing efficiency and cost reduction, quality improvement, increasing the speed and reliability of product delivery, and ensuring flexibility in production processes so as to attain competitive advantage. Thus, the paper seeks to address the following questions: (1) Are the emphases being placed on manufacturing priorities by privately owned enterprises which lead to efficiency and performance improvements due to the activities of FDJVs (who have privileged access to superior resources in the form of capital, technology, and managerial skills and expertise) or that of WDOEs? (2) How does the increase in competition in the business environment generated by the economic transformation policies affect the manufacturing activities of WDOEs as compared to that of FDJVs?

This study contributes to the FDI and JV literatures by examining the effect of the competitive environment created as a result of the structural transformation in a SSA emerging economy in promoting domestic-owned private entrepreneurial development. The results of this research would not merely interest academic audiences, but will also be of considerable interest to international agencies, governments and public policy makers. The outcome of the study would enable governments in SSA economies and international institutions such as the International Monetary Fund (IMF) and the World Bank, who are involved in the structural reforms in many emerging countries to determine whether the economic transformation policies are yielding their intended benefits. These benefits include increasing the ability of wholly domestic-owned enterprises to improve efficiency, enhance productivity and manufacture products, which meet the test of international markets vis-à-vis joint venture firms, which have been receiving resource and technological assistance from foreign partner firms. Secondly, some public policy implications may be derived from this study. One of the objectives of the economic liberalization policies in SSA and other emerging economies is to attract FDI (Filatotchev et al., 1999). This is predicated on the belief that FDI would bring benefits in the form of capital inflow to supplement domestic investment, technological capabilities, management skills, etc., which are expected to spillover to the domestic economy to promote private enterprise development. The realization of the benefits from FDI would be achieved the higher the ability of wholly domestic-owned manufacturing firms to improve efficiency, quality, and reliability in delivering products, and flexibility in production processes.

2. Background and Hypotheses

2.1. THE ECONOMY OF GHANA AND MANUFACTURING ACTIVITIES

The study is set in Ghana, an economy implementing the IMF/World Bank sponsored structural adjustment programs (SAP), which is characterized by the privatization of SOEs and liberalization of the domestic economy. After independence in 1957, Ghana pursued an inward-oriented state-controlled industrialization policy to modernize its economy. However, inefficiencies in the management of the state-owned manufacturing enterprises led to huge excess capacity and dependence on the government for subsidies and/or protection under the auspices of the infant industry argument to survive. Political instability and economic mismanagement from the mid-1960's to the early 1980's led to the deterioration of the economy, which adversely affected the manufacturing sector through the scarcity of foreign exchange to obtain the needed raw materials and inputs. In order to turn around the economic crises, the government started implementing the IMF/World Bank's led SAP in 1983 so as to promote

manufacturing efficiency, productivity growth, privately owned enterprises development, economic growth, and trade and investment. The contents of SAP include: monetary and banking reforms to improve access to capital; privatization of unprofitable state-owned enterprises; removal of import controls and foreign exchange restrictions; and removal of price controls and local production subsidies (Debrah, 2002).

Although the government of Ghana started the implementation of the IMF/World Bank SAP in 1983, serious commitment to the privatization of the SOEs did not start until 1988. This was due to concerns about (1) the balance between the involvement of foreign investors and domestic entrepreneurs and other domestic investors; and (2) the opposition to privatization by SOEs employee unions (Bennell, 1997). The reforms paved the way for foreigners to set up business enterprises in Ghana in the form of either a joint venture with a domestic company, or a wholly foreign-owned company in almost all sectors of the economy. However, the *1994 Ghana Investment Promotion Act* requires foreigners to invest at least \$50,000 for a wholly foreign-owned business or a minimum of \$10,000 in the case of a joint venture with domestic enterprises in the mining and petroleum sectors, where a ministerial permission is also required (Debrah, 2002).

The economic liberalization policies have nurtured an open economy, making it easier for manufacturing firms to obtain raw materials and inputs for productive activities. However, it has also promoted an insatiable quest for imported goods from Western countries thereby generating an increase in competition both in the local business environment and from imported goods. For instance, the rate of growth of imports into the country between 1988 and 1999 was 7.3% as compared to 4.3% for gross domestic product (GDP) (Institute of Statistical, Social and Economic Research (ISSER), 2002). Although the manufacturing sector grew by 3.7% in 2001, its share of real GDP has remained constant at about 9.1% since 1996 (ISSER, 2002). Manufacturing firms are becoming more customer- and competitor-focused by developing strategies to enhance product quality, relationship with customers and suppliers, and distribution and delivery of their products in order to reduce operating cost, increase demand, and deal with the heightened competition in the domestic market and imports from abroad. The above analysis of the manufacturing environment in Ghana implies that the structural changes in the Ghanaian economy have affected manufacturing activities especially by intensifying the nature of competition in the business environment and challenging the newly privatized and domestic-owned enterprises to become sensitive to the needs of consumers and changes in the environment.

2.2. JOINT VENTURES AND WHOLLY DOMESTIC-OWNED ENTERPRISES

The pursuit of economic liberalization policies in emerging economies has opened-up their economies and led to the transfer of corporate ownership from the state to private entrepreneurs, and the development of private businesses. The dominant forms of enterprise ownership resulting from the economic liberalization policies for the strategic organization of business activities have been joint ventures and wholly owned enterprises (Beamish and Delios, 1997; Demirbag and Mirza, 2000). While the majority of local entrepreneurs in developing economies rely on wholly owned enterprises to develop their entrepreneurial capabilities, firms and other entrepreneurs from developed economies use IJV arrangements as a means of investing in

developing economies. For example, in Ghana the most common form of FDI from Europe, Asia, and North America is through the establishment of IJV's (Boateng and Glaister, 1999, 2003). An IJV is the creation of a separate organization whose stock is shared by two or more cross-border partners in which they both hold equity (Contractor and Lorange, 1988). An examination of the strategic management and international business literatures reveal that studies on MNCs FDI activities in emerging economies have focused primarily on foreign entry mode choice decision and the motives for the formation of IJVs. I present a brief review of the literature discussing the above issues here. For a detailed overview of the literature, the reader is referred to Datta et al. (2002) and Inkpen (2001) for MNCs foreign entry mode choice and IJV studies respectively.

Foreign entry mode choice is the “institutional arrangements for organizing and conducting international business transactions, such as contractual transfers, joint ventures and wholly owned operations” (Andersen, 1997, p. 29). Research examining the entry mode choice has shown that various firm-specific and host country level factors are important in determining the entry mode choice of MNCs. The firm-specific factors include the cost of finding, negotiating and monitoring the actions of potential partners (Anderson and Gatignon, 1986; Hennart, 1988, 1991); the need to gain access to deficient and complementary resources and capabilities (Madhok, 1997), the ability to exploit assets and experiences to develop differentiated products (Dunning, 1993), and the ability to transfer the MNCs firm-specific knowledge and capabilities to host country (Brown et al., 2003). Host country level factors include market knowledge, size and access, and investment risk (Tatoglu and Glaister, 1998); and the culture, law and regulations restricting mode choice, market infrastructure attractiveness, and the availability of lower operations cost (Dunning, 1993; Brouthers, 2002; Yiu and Makino, 2002). Enterprises basing their foreign entry mode choice decisions on these factors are reported to perform better than enterprises that do not use these factors in their entry mode choice decisions (Brouthers, 2002). Several studies have examined the performance implications of foreign entry mode decision of MNCs with a focus on the differences between wholly owned subsidiaries (WOS) and JVs (e.g., Shaver, 1998; Brouthers et al., 1999; Shrader, 2001; Brouthers, 2002;). The studies have shown that the impact of foreign entry mode choice on performance is dependent on the fit between type of entry mode choice (WOS vs. JV) and the institutional, cultural and transaction cost efficiency criteria. However, none of these studies examined the performance differences between either WOS and WDOEs or JVs and WDOEs. Thus, in this study I focus on the differential emphasis placed on manufacturing priorities by WDOEs and FDJVs as a result of the implementation of economic transformation policies.

Furthermore, the international management literature presents varied motives for using IJVs as a foreign entry mode choice by partners from developed and developing economies. The motives include (1) reducing costs and risks by sharing research and development, production, and marketing costs to realize economies of scale or scope (Porter and Fuller, 1986; Boateng and Glaister, 2003); (2) transferring and sharing of complementary resources such as technological skills and capabilities, market access and knowledge and managerial skills (Buckley and Casson, 1988; Luo, 2002); (3) overcoming government-enforced restrictive controls on foreign investments (Contractor and Lorange, 1988; Boateng and Glaister, 2003); (4) reducing competition by binding competitors to allies (Porter and Fuller, 1986; Glaister, 2004); and (5)

providing a fast, efficient and effective way of learning and appropriating knowledge (Inkpen and Crossnan, 1995; Inkpen and Dinur, 1998; Inkpen, 2000).

Several theoretical perspectives including the transactions cost (TC) (Hennart, 1988, 1991; Kogut, 1988), resource-based view (Eisenhardt and Schoonhoven, 1996; Das and Teng, 2000), organizational learning (Kogut, 1988; Inkpen and Crossnan, 1995; Inkpen and Dinur, 1998; Inkpen, 2000) and institutional perspectives (Brouthers, 2002; Yiu and Makino, 2002) have been used to explain the internationalization activities (entry mode choice decision and formation of IJVs) of MNCs. Although the theoretical perspectives examine the internationalization activities from different angles, they all focus on an enterprise's decision to obtain and control critical resources and capabilities so as to improve its efficiency, competitiveness and performance. I focus on the resource-based view (RBV) to explain how the type of enterprise ownership (WDOEs and FDJVs) and the increase in competition affect the manufacturing priorities of privately owned enterprises.

According to the RBV, enterprises are fundamentally heterogeneous in terms of their resource endowments and capabilities (Wernerfelt, 1984; Barney, 1991). These heterogeneous resources and capabilities persist over time because of factors such as historical conditions, path-dependency, social complexity, time compression diseconomies and causal ambiguity (Barney, 1991; Reed and DeFillippi, 1990). An enterprise's resources and capabilities position can lead to sustainable competitive advantage if they are valuable, rare, difficult to imitate and organized, combined and deployed appropriately (Barney, 1991). Thus, the RBV posits that enterprises are driven to engage in IJVs because of the need to either fill a resource and capability gap or obtain a critical complementary resource and capability. This is especially true when "competitive advantage requires the synergistic combination of resources which a firm is unable to purchase through a market transaction or to develop internally in a timely and cost-effective manner" (Madhok, 2000: 76), as it exists in most SSA emerging economies.

Resources and capabilities of particular interest to enterprises in emerging economies in the formation of IJVs include financial resources, technical capabilities, managerial capabilities, and firm and product reputational advantages; while those from advanced economies seek local market knowledge and access (Beamish, 1993; Hitt et al., 2000). Therefore, enterprises that are jointly owned by foreigners and domestic entrepreneurs will have access to valuable resources and capabilities that will allow them to effectively compete in the domestic and international markets. Moreover, JV with foreign firms would enable the domestic partners to develop new capabilities through the rapid and inexpensive combination of sets of resources that are not available to the foreign and domestic partner individually, but which are in some way complementary (Tallman, 2000). In summary, the RBV posits that the heterogeneity in resource endowments and access to resources and capabilities between FDJVs and WDOEs creates opportunities for FDJVs to have competitive advantages over WDOEs. Collaboration provides FDJVs with access to deficient and complementary resources and capabilities, which are either not available through market transactions, or are too costly, difficult or slow to develop internally for the strategic organization of activities.

2.3. ENTERPRISE OWNERSHIP AND MANUFACTURING PRIORITIES

The above analyses indicate that access to and deployment of resources and capabilities are required by the privatized enterprises and the newly developed domestic-owned private enterprises to achieve operating efficiency, improve productivity and create value. I argue that the different ownership forms of privately owned enterprises have different resources and capabilities that are leveraged to enhance their entrepreneurial activities so as to make them competitive both in the local and international markets. The possession and deployment of various resources and capabilities in the different ownership structures will determine the extent to which a specific privately owned enterprise (WDOEs or FDJVs) will be able to improve efficiency and other manufacturing priorities.

The structural changes taking place in emerging economies such as the privatization of SOEs, removal of trade barriers, and the elimination of foreign restrictions on ownership of enterprises have created a business environment where wholly domestic owned enterprises (WDOEs) and foreign-domestic joint venture enterprises (FDJVs) compete with one another. Although the efficiency and performance levels of privately owned enterprises have improved, WDOEs and FDJVs efficiency and performance levels would not be the same. Since WDOEs lack adequate resources and capabilities in the form of financial resources and working capital, technology, and managerial skills and expertise, they are more likely to place less emphasis on manufacturing priorities and thus would under-perform FDJVs. Some WDOEs were formed before the initiation and implementation of the privatization and economic liberalization programs. These WDOEs have evolved without the benefit of market-imposed competition and therefore developed a level of comfortable inefficiency (Foster, 1992). Thus, the managers of these enterprises have not renewed their mindset to focus their attention on manufacturing efficiency, quality and reliability issues in production processes. Furthermore, these enterprises have had little opportunity to develop the managerial, technical, marketing and other skills required for succeeding in the new economy.

In contrast, the limited evidence available strongly suggests that FDJVs enjoy reputational advantages from their foreign partners' superior access to financial resources, advanced technology, managerial skills and technical capabilities that position them to outperform WDOEs (Grant, 1987; Hill, 2000). The advantages enjoyed by FDJVs enable them to emphasize activities relating to operational efficiency, improvements in quality of products, flexibility in production processes, and delivery speed and reliability more than WDOEs. For instance, Prochno and Correa (1995) have indicated that in the Brazilian manufacturing sector, multinational corporations usually make use of expatriate executives with managerial and technical skills to perform their manufacturing activities during turbulent periods such as dramatic changes in import tariffs. Uhlenbruck and De Castro (2000) have shown that when firms from Western economies acquire newly privatized firms from emerging economies, they transfer financial resources, new technologies, and managerial skills, which enable the acquired firms to improve their performance. Matthews et al. (1996) found that due to the economic reforms being implemented in both China and Russia enterprises that are jointly owned by foreign investors and local entrepreneurs have experienced significant performance improvements as compared to those that are owned by local entrepreneurs (township and village enterprises in China, and cooperatives in Russia). Doh (2000) has argued that strategic partnering arrangements between firms from advanced economies and local enterprises in emerging economies enable the local

enterprises to experience greater benefits as a result of their resource superiority during economic liberalization and privatization programs. Thus:

Hypothesis 1: Foreign–domestic joint venture enterprises will place more emphasis on achieving manufacturing priorities (manufacturing efficiency and cost reduction, delivery speed and reliability, flexibility in production, and quality improvement) than wholly domestic-owned private enterprises, *ceteris paribus*.

2.4. MARKET COMPETITION AS A MODERATING FACTOR

What then is the impact of the increasing competitive rivalry in the business environment on the manufacturing priorities of WDOEs when compared to that of FDJVs? With the increasing competition resulting from factors such as the increase in imports into the country, increase in the number of businesses now manufacturing the same products, technological changes in production processes, and changes in government regulations, WDOEs are forced to develop and adopt proactive strategies that would enable them to improve upon their manufacturing activities. These strategies include increasing manufacturing efficiency, paying closer attention to issues relating to cost, and improving the quality of the products being manufactured. Moreover, enterprises are paying more attention to the needs of customers by increasing the speed and reliability of delivery systems, and reacting to and embracing technological and product changes quickly in the business environment because of increasing market competition. Intense competition in the product market of a firm may further intensify the reforms taking place in an economy by eliminating poorly managed enterprises (Armstrong et al., 1994). Thus the viability of WDOEs dictates that they focus attention on increasing efficiency, improving quality, delivery reliability and ensuring flexibility in production processes. It has been proposed by Ramamurti (2000) that in economies implementing privatization and economic liberalization policies, enterprise ownership structure and market competition should be closely linked together in order to produce the greatest performance improvements. This is because enterprise ownership structure interacts positively with market competition to increase operational efficiency, productivity and performance (Ramamurti, 1996).

Recent research has shown that the increase in market competition in most product markets in Ghana due to SAP implementation have exposed consumers to a variety of choices, putting pressure on most WDOEs to place more emphasis on innovativeness and quality enhancement programs in production (Steel and Webster, 1992). Furthermore, domestic-owned private enterprises have adopted managerial attitudes and strategies to deal with the weak demand, increasing operating costs and competition in the domestic market and from imports (Appiah-Adu, 1998). In contrast, due to the first-mover advantages enjoyed by FDJVs due to learning opportunities afforded by their more resource-rich foreign partners (Hitt et al., 2000), they would not place as much emphasis in improving manufacturing priorities as WDOEs. For instance, Doh (2000) argues that being a first-mover in the privatization process provides substantial resource benefits to enterprises and that the benefits are greater when the enterprise enters into a partnership with an incumbent. Thus, most FDJVs enterprises may already be implementing strategies that place emphasis on manufacturing priorities which allow them to maximize efficiency, increase delivery speed and reliability, increase flexibility in their production processes and improve product quality as compared to WDOEs. Therefore:

Hypothesis 2: Market competition will moderate the relationship between enterprise ownership and manufacturing priorities (manufacturing efficiency and cost reduction, delivery speed and reliability, flexibility in production, and quality improvement). The relationship will be stronger for wholly domestic-owned enterprises when market competition is high.

3. Research Methods

3.1. DATA AND SAMPLE

The data used in this study were obtained from a personally administered questionnaire survey of manufacturing firms in Ghana in 1999. Through the cooperation of the Association of Ghana Industries (AGI), surveys were sent to the 78 manufacturing firms of AGI which were (1) wholly domestic-owned enterprises; (2) joint-venture between foreign owners and domestic owners; and (3) wholly foreign owned enterprises. We excluded enterprises with partial government ownership since we were interested in how the economic liberalization process has affected purely private enterprises development. The AGI is a professional organization whose membership is made up of all major manufacturing firms in Ghana. At the time of the study, AGI had about 100 members. The survey questionnaire was administered to the production managers (equivalent to vice president of manufacturing or its equivalent in the United States) in each of the manufacturing firms. After a series of follow-ups spanning a period of 3 months, we received a total response of 61 surveys of which 58 were fully completed. The useable response rate of 74% is highly favorable compared to previous research in the area (e.g., 37% for Appiah-Adu (1998)). The sample size of 58 also compares favorably with sample sizes used in previous studies on manufacturing strategy (Ward et al., 1994; Jayaram et al., 1999) and in similar environments (e.g., 47 firms for both Sawyerr (1993) and Sawyerr et al. (2003)). The sample comprised of enterprises operating in six industries broadly classified as building and wood products, chemicals and allied products, food and kindred products, metals and allied products, printing, and textiles. The demographic characteristics of the enterprises are presented in Table I.

3.2. MEASUREMENT OF VARIABLES

The variables in the research were operationalized using multi-item scales intended to capture the underlying constructs. All the scale items were adapted from a previously validated instrument in the operations management literature and have been used extensively (e.g., Ward et al., 1995; Badri et al., 2000). The measures for manufacturing priorities and market competition are similar to those used by other researchers in operations management (e.g., Kathuria, 2000; Amoako-Gyampah and Boye, 2001; Schroeder et al., 2002). The internal consistency of the scales of the variables was examined by calculating Cronbach's alphas which ranged from 0.66 to 0.79. Although some of the Cronbach's alphas are below 0.70 (Nunally & Bernstein, 1994), it has been argued that the lower limit of acceptability for exploratory research is generally around 0.60 (Kathuria, 2000) making the values acceptable taking into consideration the nature of the research environment. The measures are presented in the Appendix.

Table I. Demographics characteristics of enterprises

Panel A: Industry		
<i>Industry profile</i>	<i>Number of enterprises</i>	<i>Percentage</i>
Building and wood products	10	17.2
Chemicals and allied products	9	15.5
Food and kindred products	11	19.0
Metals and allied products	9	15.5
Printing	8	13.8
Textiles	6	10.3
Others	5	8.6
Total	58	100
Panel B. Enterprise ownership structure		
<i>Enterprise ownership</i>	<i>Number of enterprises</i>	<i>Percentage</i>
Wholly domestic-owned enterprise	32	55.2
Foreign-domestic joint venture enterprise	26	44.8
Total	58	100
Panel C: Employees		
<i>Number of employees</i>	<i>Number of enterprises</i>	<i>Percentage</i>
Less than 50	7	12.1
50–99	16	27.6
100–199	19	32.8
200–499	9	15.5
500–1000	4	6.9
> 1000	3	5.1
Total	58	100

Perceptual measures have been used and recommended as substitutes when objective measures are either not available or difficult to obtain (Dess and Robinson, 1984; Wall et al., 2004). However, the use of perceptual measures could lead to the common method variance problem, which was tested using the Harman (1967) one-factor test. The rationale behind the test is that if common method variance is a problem, then all the measures would tend to load on a single factor when both the dependent and independent variables are factor analyzed together. A factor analysis of the items of the manufacturing priorities and market competition variables yielded five factors with eigenvalues greater than one and the first factor explaining 17% of the variance. Moreover, the manufacturing priorities and market competition variables loaded on different factors. Thus, common method variance is not likely to be causing the relationships between the dependent and independent variables.

3.2.1. Manufacturing Priorities

Manufacturing priorities refer to the emphasis that firms place on achieving manufacturing efficiency and cost reduction, quality improvement, increasing the speed and reliability of product delivery, and ensuring flexibility in production processes so as to attain competitive advantage. It has also been referred to as manufacturing strategy, manufacturing performance, and competitive priorities in the operations management literature (e.g., Jayaram et al., 1999; Kathuria, 2000; Amoako-Gyampah and Boye, 2001; Lindman et al., 2001; Schroeder et al., 2002; Ahmad and Schroeder, 2003). Despite the fact that objective firm-level manufacturing priorities data would be preferable, it is very difficult to obtain this type of information from

manufacturing firms in Ghana. Thus, perceptual measures of manufacturing priorities were solicited from the respondents on the dimensions of manufacturing efficiency and cost reduction, quality improvement, delivery speed and reliability, and flexibility in production processes. Perceptual measures of manufacturing priorities covering these dimensions have been used extensively in the literature to measure manufacturing performance, manufacturing strategy, or competitive priorities in situations where it is difficult to obtain objective measures both in advanced industrialized countries and emerging economies (e.g., Flynn et al., 1995; Jayaram et al., 1999; Klassen and Whybark, 1999; Cua et al., 2001; Lindman et al., 2001; Schroeder et al., 2002; Ahmad and Schroeder, 2003). In fact, Wall et al. (2004) have recently provided strong support (convergent validity, discriminant validity and construct validity) for the use of subjective measures of performance as a substitute for objective measures in studies where objective measures are not feasible, unavailable or difficult to obtain.

The production managers were asked to assess the extent to which their firms place emphasis on the four manufacturing priorities (efficiency and cost reduction, quality improvement, delivery speed and reliability, and flexibility) at the time of the survey on a five-point Likert scale ranging from (1) “no emphasis” to (5) “extreme emphasis”. Using this approach to measure manufacturing priorities is consistent with practice in the operations management literature (e.g. Hayes & Wheelwright, 1984; Ward et al., 1995; Kathuria 2000). *Manufacturing efficiency and cost reduction* captures the importance of efficiency and cost minimization and was measured using four items dealing with minimizing unit costs, material costs, overhead costs, and inventory levels. Higher values of manufacturing efficiency and cost reduction indicate that a firm places more emphasis in efficiency and cost minimization in its productive activities. *Quality improvement* was measured using five items which deals with reducing defect rates, improving product performance and reliability, improving vendor quality, implementing quality control circles, and obtaining ISO 9000 certification. Higher values of quality indicate that a firm places more emphasis on improving the quality of the goods it manufactures. *Flexibility in production processes* was measured using four items. The items deal with reducing manufacturing lead-time, procurement lead-time, new product development cycle, and setup and/or changeover time. Higher values of flexibility indicate that a firm places more emphasis on improving the flexibility of its manufacturing processes. Delivery speed and reliability was measured using four items, which assesses increasing delivery reliability and delivery speed, and improving pre-sale service and technical support, and after sales service. Higher values of delivery indicate that a firm places more emphasis on the speed and reliability in being able to meet delivery and service deadlines for the goods it supplies to its customers.

3.2.2. Enterprise Ownership

Enterprise ownership was defined as a dummy variable that was coded zero (0) to indicate a foreign–domestic joint venture enterprise (FDJVs) and one (1) to indicate a wholly domestic-owned enterprise (WDOEs). We received only one response from a wholly foreign owned enterprise, but because of incomplete responses, it was excluded from the analyses.

3.2.3. Market Competition

Market competition was assessed using five items, which were intended to measure the impact of competition on the business environment of a firm. The items deal with the extent to which the respondents were concerned with increasing competition in the domestic market (industry), declining demand for firm's products in the domestic market, declining profits margins, increasing quality standards in the domestic market, and finding reliable suppliers in the domestic market. The items were measured using a Likert scale, which ranged from (1) 'very unimportant' to (5) 'very important'.

3.2.4. Control Variables

Several variables that prior theory and empirical research suggest impact on manufacturing performance were included as controls. The control variables were the number of employees, investment in fixed assets, business costs, and industry characteristics. The *number of employees* and the *investments in fixed assets* were used to control for the effect of size. Larger firms are often assumed to have more resources and possess the ability to better deal with increased competition and uncertainties in the marketplace than smaller firms. Consistent with Amoako-Gyampah and Boye (2001), firms in Ghana with 100 employees or more were considered large (coded=1) while firms with employees less than 100 were considered small (coded=0). Investment in fixed assets was measured in hundred millions of Ghanaian Cedis (at the time of the questionnaire administration, US\$1=2300.00 Ghanaian Cedis).

A *business costs* variable was included to assess the cost of doing business in Ghana. This variable was included because it has been argued in the operations management literature that the cost of doing business in an economy has the potential to affect the strategic priorities emphasized by manufacturing firms (Badri et al., 2000; Ward et al., 1995). The respondents were asked to indicate the extent to which they were concerned with eight items which affect the cost of doing business in Ghana. The items were the rising costs of labor, materials, transportation, telecommunications, utilities, health care, rental costs, and the strength of the local currency. A five-point Likert-type scale was used with responses ranging from (1) "very unimportant" to (5) "very important". Industry characteristics were included to control for the potential industry effects such as the level of growth, technology usage, demand cycles, etc. in the six industries represented in the sample using dummy variables.

3.3. STATISTICAL ANALYSIS

The hypotheses posit that foreign–domestic joint venture enterprises (FDJVs) will place more emphasis on achieving manufacturing priorities than wholly domestic-owned enterprises (WDOEs) in the business environment in Ghana. However, the intensity of competition will moderate the extent to which enterprise ownership impacts on manufacturing priorities. To test these hypotheses, a hierarchical multiple regression model with an interaction term was used to better depict the variance explained by the different set of predictor variables. The general model was estimated in the following manner: (1) control variables (including market competition); (2) control variables and enterprise ownership; and (3) control variables, enterprise ownership, and the interaction between enterprise ownership and market competition. To minimize the potential problem of multicollinearity between the interaction term and its constituent variables (enterprise ownership and market competition), we created the interaction terms by centering the enterprise

ownership and market competition variables by taking away the respective mean from each value as suggested by Aiken and West (1991) and Neter et al. (1996).

Table II presents the descriptive statistics and the correlation matrix of the variables in our study. The correlations among the variables in Table II are generally low indicating the absence of multicollinearity. The only exception is the correlation between the two variables, which were used to measure firm size (number of employees and investment in fixed assets) with a correlation coefficient of 0.57. Further diagnostics of the collinearity among the variables using the variance inflation factors (VIF's), indicated very low VIF's for all the variables with the largest being that of assets of 2.1. Because each of the VIF's is less than 10, there is little reason to suspect the problem of multicollinearity in the model (Neter et al., 1996). In addition, I performed diagnostic tests to determine whether the assumptions of homoscedasticity and normality of the residuals were violated. A regression of the predicted values of the dependent variables on the square of the residuals indicated that heteroscedasticity was not a problem (Frees, 1996). A plot of the standardized residuals against the predicted values of the dependent variables also indicated that the normality assumption is not violated (Neter et al., 1996).

Table II. Descriptive statistics and correlation¹

Variables	Mean	S.D.	1	2	3	4	5	6	7	8
1. Manufacturing efficiency and cost reduction	3.88	0.78	0.71							
2. Quality improvement	3.83	0.66	0.48	0.66						
3. Flexibility in production processes	3.51	0.89	0.34	0.52	0.79					
4. Delivery speed and reliability	4.05	0.79	0.56	0.38	0.26	0.72				
5. Market competition	3.50	0.65	0.36	0.38	0.43	0.28	0.69			
6. Business cost	3.98	0.53	0.42	0.13	-0.10	0.32	0.21	0.71		
7. Number of employees ²	0.60	0.49	0.10	-0.11	-0.07	-0.16	-0.12	-0.17		
8. Fixed assets	3.38	0.83	-0.11	-0.02	-0.01	-0.11	-0.21	-0.09	0.57	
9. Enterprise ownership ³	0.55	0.50	-0.26	-0.29	0.01	-0.02	-0.19	-0.29	-0.29	-0.34

¹n=58. Correlations greater than 0.30 are significant at $p < 0.05$. Values in diagonals are internal consistency coefficients (Cronbach's alphas).

²Dummy variables coded (1) if number of employees ≥ 100 , and (0) if number of employees < 100 .

³Dummy variables coded (1) if wholly domestic-owned enterprise (WDOEs) and (0) if foreign-domestic joint venture enterprise (FDJVs).

4. Results and Discussion

The regression results of the model are presented in Table III. In each of the estimations, Model 1(a, b, c, & d) represents the baseline models that test the relationship between the controls and manufacturing priorities. Model 2 (a, b, c, & d) is used to investigate Hypothesis 1 (H1) and examines the relationship between the controls, intensity of market competition and enterprise ownership on the manufacturing priorities of manufacturing efficiency and cost reduction, quality improvement, delivery speed and reliability, and flexibility in production processes. In Model 3 (a, b, c, & d), I include the interaction between enterprise ownership and intensity of market competition to test Hypothesis 2 (H2).

Table III. Regression Results of Enterprise Ownership and Market Competition on Manufacturing Priorities¹

Variables	Efficiency			Delivery			Flexibility			Quality		
	Model 1a	Model 2a	Model 3a	Model 1b	Model 2b	Model 3b	Model 1c	Model 2c	Model 3c	Model 1d	Model 2d	Model 3d
Business cost	0.38**	0.36**	0.34**	0.34*	0.38**	0.36**	-0.22 ⁺	-0.24 ⁺	-0.23 ⁺	-0.03	-0.04	-0.07
Number of employees	0.34*	0.33*	0.31*	-0.15	-0.12	-0.14	-0.16	-0.14	-0.14	-0.25 ⁺	-0.28*	-0.28*
Fixed assets	-0.25*	-0.25*	-0.25*	0.07	0.11	0.13	0.06	0.10	0.09	0.18	0.11	0.13
Market competition	0.45**	0.44**	0.41**	0.32*	0.36*	0.36*	0.50**	0.53**	0.53**	0.42**	0.36**	0.32*
Building & wood products	-0.04	-0.04	-0.01	0.25	0.24	0.25	0.19	0.18	0.17	0.07	0.09	0.15
Chemicals & allied products	-0.03	-0.02	-0.03	0.10	0.08	0.12	0.12	0.11	0.10	0.05	0.09	0.16
Food & kindred products	0.22	0.22	0.22	0.39*	0.39*	0.38*	0.26 ⁺	0.25 ⁺	0.25 ⁺	0.36*	0.37*	0.36*
Metals & allied products	0.02	0.03	0.10	0.24	0.22	0.24	-0.19	-0.20	-0.21	0.01	0.04	0.13
Printing	0.08	0.09	0.16	0.01	0.02	0.04	-0.01	-0.03	-0.05	-0.12	-0.06	-0.03
Textiles & allied products	-0.04	-0.03	-0.02	-0.05	-0.09	-0.04	-0.03	-0.05	-0.06	0.05	0.09	0.16
Enterprise ownership		-0.31*	-0.34*		-0.14	-0.10		-0.12	-0.13		-0.28*	-0.31*
Enterprise ownership × market competition			0.39**			0.17			0.05			0.32*
R ²	0.46	0.51	0.60	0.29	0.31	0.32	0.40	0.41	0.41	0.31	0.37	0.45
ΔR ²		0.05	0.09		0.02	0.01		0.01	0.00		0.06	0.08
F test for ΔR ²		4.67*	10.11**		1.33	0.67		0.78	0.00		4.38*	6.56*

¹Reported coefficients are standardized coefficients. INDUSTRY PROXIES: Dummy variables (1 if the respective industry such as Building & wood Products, Chemicals & allied Products, Food & kindred Products, etc., 0 otherwise).

⁺p<0.10.

*p<0.05.

**p<0.01.

4.1. MANUFACTURING EFFICIENCY AND COST REDUCTION

In both Models 1a and 2a business cost, the number of employees and intensity of market competition are significant and positively related to the emphasis placed on efficiency and cost reduction, while investment in fixed assets is significant but negatively related to the emphasis placed on efficiency and cost reduction. The results indicate that as the cost of doing business increases, firms tend to place more emphasis on increasing efficiency and reducing cost. Furthermore, the larger the firm (in terms of the number of employees), the higher the degree of emphasis they place on efficiency and cost reduction as a manufacturing priority. Firms with more employees appear to have the means and know-how to reduce manufacturing cost. At the same time the larger the fixed assets of a firm, the less the emphasis they place on efficiency and cost reduction. It appears that firms which have already made large investments in fixed assets obtain a cost advantage, perhaps as a result of investment in modern and technologically sophisticated equipment that increase efficiency and reduce cost, and thus do not place any more emphasis on efficiency and cost reduction. Model 2a further shows that enterprise ownership is significant and negatively related to the emphasis placed on efficiency and cost reduction. In Model 3a, the enterprise ownership variable is still negative and significant indicating that foreign-domestic JV enterprises (FDJVs) place more emphasis on manufacturing efficiency and cost reduction than wholly domestic-owned enterprises (WDOEs). The result provides support for H1. Furthermore, the interaction between enterprise ownership and intensity of market competition is positive and significantly related to the emphasis placed on efficiency and cost reduction by manufacturing firms in Ghana, providing support for H2. The proportion of the

variance explained increased significantly by including the interaction term. The moderating effect of market competition is illustrated graphically in Figure 1. Figure 1 was plotted by converting market competition into a categorical variable using the median to distinguishing between low and high competitive environments. Figure 1 shows that under low market competitive conditions the emphasis placed on manufacturing efficiency diverge significantly between FDJVs and WDOEs, but are much closer together with increasing competition.

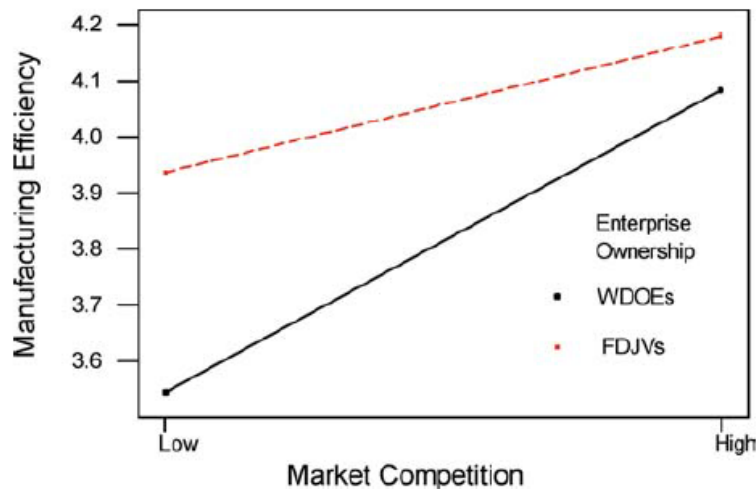


Figure 1. Moderating effects of market competition on enterprise ownership-manufacturing efficiency relationship.

Moreover, the significant variables in Model 1a maintained their levels of significance and directions adding credence to the robustness of the model. The results indicate that wholly domestic-owned firms (WDOEs) in Ghana place more emphasis in minimizing cost of production than foreign–domestic joint venture firms (FDJVs) when they perceive that the competition in the business environment is high. Thus, the increase in competition is injecting some level of discipline into the operations of wholly domestic-owned enterprises to generate efficiency and pay more attention to the economic viability of their products.

4.2. DELIVERY SPEED AND RELIABILITY

The results in Models 1b and 2b indicate that business cost, the industry that manufactures food and kindred products, and intensity of market competition were positive and significantly related to the emphasis placed on the manufacturing priority of delivery. However, enterprise ownership is not significantly related to delivery in Model 2b. In Model 3b, where we include the interaction between enterprise ownership and intensity of market competition, the results show that both enterprise ownership and the interaction between enterprise ownership and intensity of market competition are not significantly related to delivery. However, the significant variables in Model 2b and 3b maintained their directions and levels of significance. The hypotheses (H1 and H2) were not supported for delivery speed and reliability, indicating that there is no difference on the emphasis placed on delivery speed and reliability between WDOEs and FDJVs. Moreover, the extent to which enterprise ownership affects delivery speed and reliability is not dependent on competitive intensity. This may be due to the fact that delivery of goods in the manufacturing environment in Ghana is not dependent on technology as much as the cost of doing business in

general and the degree of market competition. The use of bar codes, radio frequency technology and electronic data interchange (EDI) which have been introduced into the manufacturing environment by FDJVs are in their infancy and thus do not have a significant effect on delivery. When the cost of doing business is increasing and market competition is intense, firms are more likely to implement manufacturing strategies that increase the speed, reliability and dependability of their deliveries. The enterprises manufacturing food and kindred products places more emphasis on delivery compared to enterprises in other industries because of issues relating to the perishability of their products.

4.3. FLEXIBILITY IN PRODUCTION PROCESSES

Models 1c, 2c and 3c indicate that business costs, the intensity of market competition and the food and kindred industry are significantly related to the emphasis placed on flexibility by manufacturing firms in Ghana. Rising business costs make it difficult for firms to become flexible in their manufacturing processes. Enterprises producing food and related products place more emphasis on flexibility in their manufacturing process than those in other industries. The hypotheses regarding flexibility in production processes were therefore not supported. Apart from the impact of increasing competition in the business environment, measures that lead to flexibility in production processes may depend on variables such as investments and/or improvements in machine tools and new tooling and the use of work cells and teams, which are non-existent in most wholly domestic-owned enterprises in Ghana. Furthermore, the private enterprises which are jointly owned by foreign and domestic partners may not have completely altered their manufacturing processes to deal with flexibility. These may explain the reason why enterprise ownership is not significantly related to flexibility, and the interaction between enterprise ownership and intensity of market competition do not also affect flexibility.

4.4. QUALITY IMPROVEMENT

Models 1d, 2d and 3d show that the food and kindred industry and market competition are positive and significantly related to the manufacturing priority of quality improvement. At the same time, the number of employees is negatively related to quality improvement. The results indicate that small firms place more emphasis on improving quality than large firms. Perhaps in order for small firms to compete effectively with large firms they will need to use quality as a strategic tool. Model 2d also indicates that enterprise ownership is negatively related to quality improvement. Model 3d shows that enterprise ownership is still negative and significant, while the interaction between enterprise ownership and intensity of market competition displays a positive and significant relationship to the emphasis placed on quality improvement. The proportion of the variance explained improved significantly when I included the interaction term in the model. The results confirm the hypotheses (H1 and H2) regarding quality improvement. The moderating effect of market competition on the relationship between enterprise ownership and quality improvement is further illustrated in Figure 2. Figure 2 indicates that under low market competitive conditions FDJVs emphasize quality improvement more than WDOEs, but as competition increases WDOEs place more emphasis on quality improvement than FDJVs.

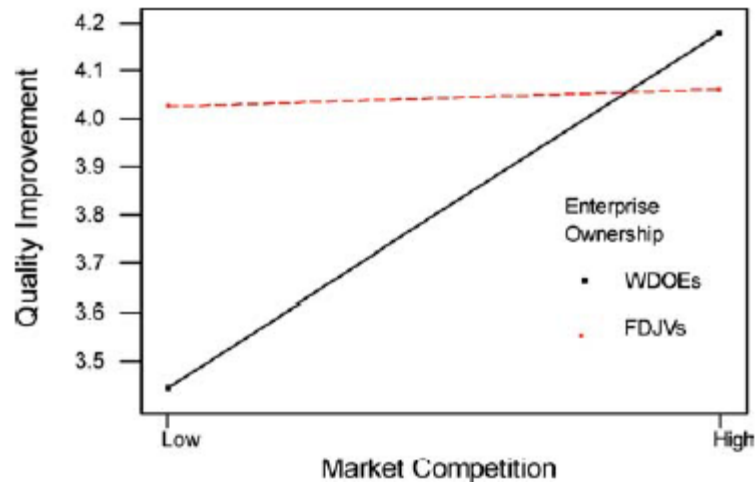


Figure 2. Moderating effects of market competition on enterprise ownership-quality improvement relationship.

The result indicates that, all things being equal, FDJVs place more emphasis on quality improvement than WDOEs. However, when WDOEs perceive that the level of competition in the business environment is high and/or increasing, they place more emphasis in manufacturing products of high quality standards than FDJVs. This suggests that the increase in market competition brought about by the economic liberalization policies is infusing competitiveness into the operations of WDOEs when it comes to improving product quality. This may be due to the fact that FDJVs are already making use of the technological capabilities and other competencies they have acquired from their foreign partners to manufacture high quality products and there is no need to be concerned about improving product quality. However, for WDOEs, the drive to improve the quality of their products is necessary since it has been shown in recent studies that Ghanaian consumers are becoming more prudent in their purchasing behavior and placing more emphasis on the quality of the products they purchase (Appiah-Adu, 1997; Steel & Webster, 1992).

5. Conclusion

Prior studies have found that efficiency and performance improves in privately owned enterprises after the implementation of economic liberalization and privatization programs in emerging economies. Despite the importance of these results, no empirical evidence exists concerning the ownership source of the efficiency and performance improvements in the privately owned enterprises in emerging economies. This study attempts to fill that void by providing empirical evidence on the enterprise ownership source (foreign–domestic joint venture enterprises versus wholly domestic-owned enterprises) of the emphasis placed on manufacturing priorities using 58 manufacturing enterprises in Ghana.

The results reveal that enterprise ownership has an important effect on the manufacturing priorities of efficiency and cost reduction, and quality improvement. Specifically, the results show that with the implementation of privatization and economic liberalization policies in the Ghanaian economy, foreign–domestic joint venture firms emphasize efficiency and cost reduction and quality improvement more than wholly domestic-owned enterprises in the business

environment. This is consistent with Doh et al. (2004) who found that private ownership in a liberalized environment is positively associated with joint venture infrastructure projects in the telecommunications industry. At the same time, the increase in the level of competition in the business environment due to the privatization and economic liberalization policies energizes wholly domestic-owned enterprises to become more competitive by placing more emphasis on efficiency and cost reduction and quality improvements than foreign–domestic joint venture firms. The results also show that the heightened level of competition in the business environment nurtured by the structural reforms have increased the emphasis enterprises place on the manufacturing priorities of efficiency and cost reduction, delivery speed and reliability, flexibility in production processes and quality improvement. Contrary to my hypotheses, the results also indicate that there is no difference in the emphasis placed on delivery speed and reliability, and flexibility in production processes by foreign–domestic joint venture enterprises and wholly domestic-owned enterprises. This may be due to the fact that delivery and flexibility are not as important as efficiency and cost reduction, and quality improvement in the Ghanaian economy during the early phase in the implementation of economic liberalization policies. Thus, while FDJVs use their superior resources and capabilities to emphasize efficiency and quality in their manufacturing activities, the increasing competitive intensity in the business environment forces WDOEs not only to become disciplined in their operations but also learn from FDJVs so as to become more efficient in their operations and improve the quality of products they manufacture.

These results indicate that the efficiency and performance improvements of privately owned enterprises found in the literature may be due to the involvement of foreign investors' more than domestic ownership of private enterprises. In spite of this, the introduction of superior technological and managerial skills and expertise by the foreign partners of foreign–domestic joint venture enterprises have injected discipline into the operations of wholly domestic-owned enterprises by raising the bar on efficiency and quality and therefore the level of competition. Consequently, wholly domestic-owned enterprises have been adopting proactive manufacturing strategies to increase efficiency, reduce costs, and improve the quality of products they manufacture.

From a public policy point of view the results of this study offer significant implications. First, the results reveal that the FDI that have been attracted into the country as a result of the privatization and economic liberalization programs have been yielding positive outcomes. The inflow of capital to supplement domestic investment, technological knowledge, and managerial skills and expertise has gradually spilled-over to the domestic economy to promote private enterprises development. Second, the reform is yielding their intended benefits of improving the efficiency and quality of products manufactured by wholly domestic-owned enterprises. Given the inability of the Ghana government to provide significant financial resources needed to restructure the remaining SOEs, it should take concrete steps to continue the process of privatizing them. The choice of a single country for the study does not only enhance the internal validity of the results, but may boost its external validity and applicability to other SSA economies, especially those implementing IMF/World Bank structural adjustment programs. It reveals that a firm commitment to the implementation of privatization and economic liberalization policies have the potential to increase efficiency, enhance productivity and improve

the quality of manufactured products by wholly domestic-owned enterprises, thus leading to private entrepreneurial development.

This study has some potential limitations. First, like most cross-sectional studies, this one establishes associations between the hypothesized variables, but not causality. However, the interaction effect between ownership structure and competitive intensity in predicting the emphasis placed on the manufacturing priorities of efficiency and quality improvement clearly indicates that ownership structure is an important determinant of manufacturing performance. Second, the sample size was small, although it was comparable to samples that have been used in similar studies on manufacturing strategy (e.g., Jayaram et al., 1999; Ward et al., 1994), and on management research in similar economic environments (e.g., Appiah-Adu, 1998; Sawyerr, 1993). Despite the fact that it is very difficult to obtain data in most Sub-Saharan African countries, future research designs in those environments should make an effort in increasing the sample size. Third, I used perceptual measures of manufacturing priorities instead of objective measures of manufacturing performance. Thus, I was limited to soliciting information on the emphasis the enterprises have placed on those manufacturing priorities instead of the actual manufacturing performance achieved by the enterprises. The choice was due to the difficulty of collecting objective manufacturing priorities or performance information from enterprises in Ghana. Nevertheless, this is not unique to this study since many studies in both advanced industrialized economies and emerging economies alike have been using perceptual measures of manufacturing priorities/performance by focusing on the emphasis placed on these activities (e.g., Kathuria, 2000; Ward et al., 1995). Fourth, the study did not examine the specific business strategies being pursued by FDJVs and WDOEs respectively and their impact on manufacturing priorities. Future studies could incorporate specific business strategic variables of the types of ownership structures to explore their manufacturing performance implications.

Notwithstanding the limitations, I have provided some empirical evidence which indicate that the efficiency and performance improvements of the privately owned enterprises that have been observed in emerging economies after the implementation of economic liberalization policies may be primarily due to the injection of foreign resources in the form of capital, technological know-how and managerial skills and expertise. Furthermore, with increase in competition due to the presence of foreign investment and imports which heightened demand standards of products by consumers in the local economy, wholly domestic-owned enterprises quickly learn from their foreign counterparts and increase their level of efficiency and quality. I believe that exploring the effects of the economic liberalization policies on domestic entrepreneurial development by framing the relationship between ownership structures (FDJVs and WDOEs), competitive intensity and manufacturing priorities in this way contributes to the IJV, FDI and manufacturing strategy literatures. This has the potential of aiding future theoretical and empirical investigations not only in SSA but also other emerging economies of Southeastern Asia, Central and Eastern Europe, and Central and South America pursuing economic liberalization and privatization policies.

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Appendix: Scales Items for Manufacturing Priorities, Market Competition, and Business Cost

5.1. A.1. MANUFACTURING PRIORITIES

Instructions: Indicate the extent to which your company places emphasis on the following manufacturing priorities (5 point scale: 1=“No emphasis”, and 5=“Extreme emphasis”).

Manufacturing Efficiency and Cost Reduction (a=0.71)

- Minimize unit costs
- Minimize materials costs
- Minimize overhead costs
- Reduce inventory levels

Quality Improvement (a = 0.66)

- Reduce defective rates
- Improve product performance and reliability
- Improve vendor’s quality
- Implement quality control circles
- Obtaining ISO 9000 certification

Flexibility in Production Processes (a=0.79)

- Reduce manufacturing lead-time
- Reduce procurement lead-time
- Reduce new product development cycle
- Reduce setup/changeover time

Delivery Speed and Reliability (a=0.72)

- Increase delivery reliability
- Increase delivery speed
- Improve pre-sale service
- Improve after sale service and technical support

5.2. A.2. MARKET COMPETITION AND BUSINESS COSTS

Instructions: Indicate the extent to which the following are of current concern to your company (5 point scale: 1= “Very unimportant”, and 5= “Very important”).

Market Competition (a=0.69)

- Increasing competition in local markets
- Low profit margin
- Declining demand in local markets

Producing to the required quality standards
Unreliable vendor quality

Business Costs ($\alpha=0.71$)

Rising labor cost
Rising materials cost
Rising transportation costs
Rising telecommunications costs
Rising utilities costs
Rising rental cost
Rising healthcare costs
Weak value of local currency (Cedi)

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