Functional Strategies and Competitive Strategy: Testing Differences between Family and Nonfamily Firms in Ghana

Kwasi Amoako-Gyampah (kwasi_amoako@uncg.edu) and Moses Acquaah
Bryan School of Business & Economics, University of North Carolina at Greensboro, NC 27402

Jayanth Jayaram
Moore School of Business, University of South Carolina, Columbia, SC 29208

Abstract

The study examines the role of human resource management (HRM) and manufacturing strategies on competitive strategy development and how they differ between family and nonfamily firms. Using data from 122 family and nonfamily firms in Ghana, the findings show that HRM and manufacturing strategies have different influences on competitive strategy. These findings also indicate that there is no consistent pattern with regard to the relationships between the two functional strategies and competitive strategy for family and nonfamily firms.

Keywords: human resource strategy, manufacturing strategy, competitive strategy, family firms

Introduction

Researchers from various disciplines in business have emphasized the important role that functional area strategies play in the formulation and implementation of competitive strategy. Operations management researchers have demonstrated that manufacturing strategy and the integration of decisions between manufacturing and human resources can have a significant impact on an organization's ability to achieve competitive advantage (e.g., Jayaram et al. 1999). Similarly, human resource management (HRM) and other researchers have observed that the use of HRM practices and the availability of human capital can have significant effects on organizational performance (Acquaah and Amoako-Gyampah 2003; Youndt et al. 1996). Despite the numerous studies examining the role functional strategies play in the formulation and implementation of competitive strategy in organizations, little attention has been devoted to family businesses. Given the significant role that family businesses play in the economies of developing countries, an understanding of the differences between family firms (FFs) and nonfamily firms (NFFs) will help mangers in those environments develop appropriate strategies that will make them successful. The objective of this paper is to examine how the effects of manufacturing and HRM strategies on competitive strategy differ between FFs and NFFs in a developing economy.

Family firms are ubiquitous organizations in both advanced and developing economies and are credited for fuelling the engine of entrepreneurship and economic development (Rogoff et al.). Given that FFs and NFFs differ in terms of their organizational structures, access to capital and other resources, entrepreneurial orientation, risk taking, and innovation (Naldi et al. 2007), their functional and competitive strategies may also be different. This may be especially

pronounced in developing economies where most FFs face huge obstacles compared with NFFs. Developing economies are characterized by shortage of managerial and technical skills expertise, funding sources, technology, and there exist high levels of market imperfections. They suffer from "institutional voids" – the absence of market-supporting institutions, contract-enforcing mechanisms, and efficient transportation and communication networks (Khanna and Palepu 1997). With most of the research comparing the strategic organization of business activities between FFs and NFFs focusing on advanced economies, there is the need for empirical research that examines and compares the linkages between different functional strategies and the effect of these linkages on competitive strategy in FFs and NFFs in developing economies.

This study uses data from Ghana, a sub-Saharan African developing economy, to examine the differences in the relationship between manufacturing and HRM strategies, and competitive strategies in FFs and NFFs. The study will contribute to the literature on the role functional strategies play in competitive strategy development in the family business literature in two significant ways. First, this study introduces and examines a research topic of both theoretical and practical significance but which has received relatively little attention in the family business literature. Second, most family business studies have focused on firms in the United States, and other advanced economies in Europe. There is the need to understand how existing theories might differ under different environmental contexts such as those in Sub-Saharan Africa for FFs and NFFs so as to strengthen these theories.

The Economic and Manufacturing Environment in Ghana
Ghana is a relatively small Sub-Saharan African emerging economy. The country pursued a state-oriented industrialization policy after independence from colonial rule in 1957. Several state-owned manufacturing enterprises, which depended on the government for huge subsidies and protection from the global economy, were established throughout the country. However, in the 1970's to the 1980's, severe economic declines led to huge excess capacity and inefficiencies in the manufacturing sector. In order to turn around the economic crises, the government in the 1980s started implementing IMF/World Bank led structural adjustment programs (SAP). These programs were initiated to promote the liberalization of the domestic economy, operations efficiency, productivity growth, privately-owned enterprises development, economic growth, and trade and investment. The economic liberalization policies have created an unprecedented change in the business environment through increased competition both in the domestic market and from imports into the country. The government also has been implementing policies targeted at the development of entrepreneurs and the promotion of small- and medium-sized businesses. These changes have led to proliferation of both family and family business. But no studies have been done on how they pursue HRM and manufacturing strategies.

Theoretical Background and Hypotheses
In this study we define a family firm as a firm that is owned and controlled by a specific family, and where family members are involved in the firm's management and decision-making processes (Chua, Chrisman, and Sharma 1999).

Human Resource Management (HRM) Strategy and Competitive Strategy
Human resource management (HRM) strategy consists of a set of employee recruitment and selection procedures; incentive compensation and performance management policies; and extensive employee training, participation and involvement in decision-making. HRM strategy

plays an important strategic role for firms because it is designed to provide internally consistent policies and practices that ensure that a firm's human capital contributes to the achievement of its strategic objectives. Thus, high-involvement HRM practices or strategies promote employees' commitment and attachment to their organizations (Huselid 1995).

Several researchers have demonstrated a theoretical link between HRM strategy and business strategy (e.g., Lengnick-Hall and Lengnick-Hall 1988). However, the empirical evidence to corroborate the theoretical propositions have been scanty (example.g, Bae and Lawler 2000; Khatri 2000). Miles and Snow (1984) have argued that efficiency-oriented competitive strategy like cost leadership works best with a high-involvement HRM strategy that seeks to emphasize building existing human resources and focusing on internal training and promotion, while minimizing high-involvement HRM practices such as highly selective recruiting practices to reduce employee-related costs. On the other hand, a competitive strategy like differentiation is associated with a high-involvement HRM strategy that emphasizes employee skill acquisition, thus placing more emphasis on recruitment and selection practices, and participation and involvement. Bird and Beechler (1995) also assert that cost leadership works best with low levels of high-involvement HRM strategy, while a differentiation strategy could be effectively supported by high levels of high-involvement HRM strategy. In this study we focus on two high-involvement HRM strategies: employee recruitment and selection, and employee participation and involvement. These two HRM strategies are considered important practices and have received a significant amount of interest in the family business literature (e.g., Carlson et al. 2006; Kotey and Folker 2007).

Although both FFs and NFFs will select HRM strategies that fit with their competitive strategy, the relationship between HRM strategy and competitive strategy will be stronger for NFFs firms because of their ability to employ and retain talented and skilled employees. HRM issues pose unique challenges for FFs more than NFFs because of the former's lack of resources (e.g. Eddleston et al. 2007). Moreover, family firms tend to be at a disadvantage at attracting, recruiting, and developing skilled and talented nonfamily human resources. This is because such employee recruitment and development activities involve extensive financial investment which is usually beyond the means of family firms. It has therefore been argued that FFs are either ill-equipped to build human capital because of lack of resources or over-concerned with wealth preservation (Carney 2005). In fact, Carlson et al. (2006) argue that although both small and medium-sized FFs and FFs in the US identify shortages of skilled employees as a major concern, FFs singled out attracting and retaining highly qualified nonfamily managerial personnel and dealing with insufficient or poorly trained employees as the major barriers to business success and growth. Thus, family firms do not have the HRM capabilities and the organizational resources to engage in sophisticated recruitment and selection programs for talented and skilled employees, offer attractive remuneration, motivational and participation programs that will link HRM strategy to competitive strategy effectively. We therefore hypothesize that:

H1a. HRM strategy will have a stronger influence on cost leadership strategy for NFFs than FFs.

H1b. HRM strategy will have a stronger influence on differentiation strategy for NFFs than FFs..

Manufacturing Strategy and Competitive Strategy
Manufacturing strategy refers to the specific competencies (especially in the areas of low cost, quality, delivery, and flexibility) that are developed around the manufacturing function aimed at

the achievement of the competitive priorities of the organization. Manufacturing strategy represents a consistent pattern of decisions that are linked to the business strategy of the firm (Hayes and Wheelwright 1984). There has been some work suggesting that manufacturing strategy can shape competitive strategy (e.g., Hayes and Wheelwright 1984; Gupta and Somers 1996; Ward and Duray 2000). Collectively, this body of knowledge argues that a strong relationship exists between manufacturing strategy and competitive strategy.

There is, however, very sparse theoretical literature that could help predict and explain the differences between the strength of the relationship between manufacturing strategy and competitive strategy among FFs and NFFs. In most developing countries, FFs have the potential to contribute tremendously to the economic growth of those countries. This is because of the transfer of wealth and asymmetric and inimitable capabilities within the FF as a result of succession decisions and the desired objective of maintaining family control over the business (Wu, Chua, and Chrisman 2007). FFs are expected to be more agile in possessing the ability to adapt to changes and make decisions quickly. Thus, FFs are expected to make strategic choices that take advantage of such strengths. Based on this argument, one would expect to find a stronger relationship between manufacturing flexibility and differentiation for FFs than NFFs. FFs are also expected to possess the disadvantages of inadequate technological capabilities, lack of financial strength, and can suffer disproportionately from lack of appropriate infrastructure in their operating environments. Thus, one cannot expect strong relationships between manufacturing strategies and cost leadership strategies for FFs when compared to NFFs.

An additional argument can be borrowed from the literature on organizational routines. One would expect that organizational routines are more embedded in NFFs and thus, NFFs are likely to enjoy a stronger alignment between manufacturing strategy and competitive strategy because of their ability to routinize the decisions linking manufacturing strategy with competitive strategy (Nelson and Winter 1982). However, an alternate view can be that informality, as present in FFs, makes them more adaptive to changes in competitive landscapes making the alignment of manufacturing strategy with competitive strategy stronger in FFs than in NFFs. The above arguments show that there is not a consistent pattern of explanations that might favor one category of firms over the other with regard to the relationship between manufacturing strategy and competitive strategy. For example, while NFFs can take advantage of their bargaining strength and stronger relationships with suppliers to drive material costs down and thus attain cost leadership advantages, FFs can use their closer relationships with customers to pursue delivery strategies that lead to the attainment of a differentiation competitive advantage. Thus, we expect that the strength of the association between manufacturing strategy and competitive strategy for FFs and NFFs will depend on the specific nature of the manufacturing strategy and the competitive strategy being emphasized by the firm. Accordingly we propose that:

> *H2a. Manufacturing strategy will have a stronger influence on cost leadership strategy for NFFs than FFs.*
> *H2b. Manufacturing strategy will have a stronger influence on differentiation strategy for FFs than NFFs.*

Method

This study involved hand delivery of questionnaires to 170 manufacturing organizations in Ghana. The entire data collection process took three weeks. Each organization was given two different questionnaires. The questionnaire focusing on HRM strategy was completed by an HR manager while a manufacturing manager answered the questionnaire on manufacturing strategy.

Each questionnaire had common components on competitive strategy, firm demographics, and business environment. Thus, multiple responses were obtained from the same firm on these measures. There was very high inter-rater reliability on the questions with multiple respondents. A total of 130 completed surveys were returned representing a response rate of 76.5 percent. Surveys from eight firms were discarded for incomplete information resulting in a final usable sample size of 122. We took several steps to check for common method variance (CMV). First, the study included several different items focusing on HRM, manufacturing and competitive strategies which were responded to by different individuals within the firm. Second, some of the scales were reversed so one end of the responses did not always correspond to a larger effect. Third, the respondents were assured of the anonymity of their responses as well as given the assurance that their companies will not be individually identified in any reports. These techniques are among established means by which CMV is minimized (Podsakoff et al 2003).

Measurement of Variables
We measured competitive strategy by using Porter's generic typology. Most of the items used in measuring the two constructs have their origins in the work of Dess and Davis (1984) who developed these measures to assess Porter's (1980) generic competitive strategies. The respondents were asked to indicate the importance of 14 competitive items to their firms' strategy with a seven point Likert-type scale ranging from 1 (not important) to 7 (extremely important). A factor analysis of the competitive strategy items resulted in two factors representing cost leadership and differentiation. Four items loaded on cost leadership, six on differentiation. Four cross-loaded items were dropped from the subsequent analysis. *Cost leadership strategy* was assessed with four items: competitive pricing, procurement of raw materials, reduction of production costs, and minimization of operations costs. *Differentiation strategy* was assessed with six items: advertising, developing innovative marketing techniques, influencing/controlling channels of distribution, utilizing highly skilled sales force/agents, customer service, and product quality to the organization.

HRM strategies in the two areas of *recruitment and selecti*on, and *participation and involvement in decision making* commonly considered to affect competitive strategy in the human resource (HR) literature were included in the study (e.g., Bae and Lawler 2000; Khatri 2000). The HR managers in each firm were asked to indicate the extent to which they "agree" or "disagree" with statements that describe employee practices in their organization with a seven-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). *Recruitment and selection* was measured with four items: hire applicants with long-term potential to company; employees are given the chance to fill vacant positions; the use structured interviews to select applicants; and the use rigorous criteria in recruiting and selecting new employees. *Participation and involvement* was measured with six items: employees participate in a wide range of issues facing the company; employees share information and work together; employees are given a lot of discretion in doing their work; employees have a reasonable process for making their concerns known; employees receive formal communication about company goals and performance; and employees receive formal appraisal of their performance regularly. Because low values for all the items were consistent with a high-involvement HRM strategy, we reverse coded the items so that high values will represent a high-involvement HRM strategy.

Manufacturing strategy was assessed through the four commonly accepted dimensions of cost, delivery, flexibility, and quality. A 14-item scale adapted from the work of Ward and Duray (2000) was used to assess manufacturing strategy with a 7 point Likert-type scale ranging

5

from 1 (no emphasis) to 7 (extreme emphasis). *Cost manufacturing strategy* was assessed with two items measuring the amount of emphasis placed on reducing material costs and overhead costs. *Delivery* was measured with two items that assessed the emphasis placed on meeting delivery promises and providing faster deliveries. We measured *flexibility* by asking respondents on the amount of emphasis that their firms placed on handling changes in product mix, reducing lead time, handling variations in customer orders, making changes in product design as desired by customers, and ability to adjust capacity rapidly within a short time period. *Quality* was measured using six items that assess conformance quality. The items were using statistical process control methods, updating process equipment, and technology, reducing defect rates, developing new processes for products, and obtaining quality certifications.

Reliability and Statistical Analyses
The reliability of the measures was assessed through the determination of the Cronbach alpha coefficients. Our previous description of the various constructs and their use in several past research studies provide evidence of the validity of the scales (Swink et al 2005). The reliability coefficients of each measure are shown on the diagonal in Table 1. The reliability coefficients range from 0.58 - 0.86. Although one of them is slightly below 0.60, several researchers have noted that alphas of between 0.50 - 0.60 are generally acceptable for exploratory research (Nunnally and Bernstein 1994).

Table 1: Means, Standard Deviations, Correlations, and Reliability Coefficients

Variables	1	2	3	4	5	6	7	8	9	10	11
1. DFS [a]	**0.69**										
2. CLS [a]	0.37	**0.58**									
3. Delivery	0.29	0.42	**0.73**								
4. Flexibility	0.36	0.50	0.44	**0.64**							
5. Cost	0.26	0.57	0.49	0.49	**0.77**						
6. Quality	0.31	0.38	0.49	0.50	0.45	**0.69**					
7. HRM-P [a]	0.30	0.22	0.15	0.26	0.14	0.06	**0.82**				
8. HRM-R [a]	0.14	0.05	-0.04	0.09	-0.02	0.03	-0.60	**0.69**			
9. Ownership	-0.02	-0.08	-0.13	-0.04	0.03	0.00	-0.09	-0.11			
10. Firm Size [b]	0.12	0.11	-0.14	0.13	-0.12	0.08	0.01	-0.06	0.27		
11. Family [c]	-0.03	-0.10	0.05	0.09	-0.01	0.09	0.10	-0.00	-0.26	0.18	
Mean	5.53	6.29	6.23	5.61	6.23	5.27	5.06	5.00	0.35	0.26	0.46
S.D.	0.96	0.63	0.94	0.86	0.93	1.06	1.25	1.34	0.48	0.44	0.50

[a] DFS = Differentiation strategy; CLS = Cost leadership strategy; HRM-P = HR Participation; HRM-R = HR Recruitment. [b] Firm size: 0 if number of employees is <100, 1 otherwise. [c] Family firms =1, Nonfamily firms =0 . Significance: $r > 0.25$, $p < 0.01$; $r > 0.17$, $p < 0.05$. Bold values in diagonals are Cronbach alpha (α) coefficients.

To test the hypothesized relationships we performed several hierarchical regression analyses. We run separate analysis for each functional strategy (HRM and manufacturing) with cost leadership as the dependent variable for both FFs and NFFs. We also run a regression analysis for each functional strategy with differentiation as the dependent variable. We used a *t*-test to check for statistical differences between the beta coefficients for FFs and NFFs (Cohen and Cohen 1983).

Results

Table 2A shows the results of the regression analysis of the relationship between the functional strategies and CLS for FFs and NFFs. For both FFs and NFFs the two controls of firm size and ownership were not significant. We then added the functional strategies individually to test for H1a and H2a. Since the difference between the FFs and NFFs was tested by subtracting the betas of the FFs from that of the NFFs, we expect a positive and significant difference between the betas in order for H1a and H2a to be supported. The relationship between HR recruitment strategy and CLS is not significant for both FFs and NFFs. However, for HR participation strategy there is a significant relationship for FFs but no significant relationship for NFFs, though the difference was not significant. Thus, H1a cannot be confirmed.

Table 2A: Human Resource Management and Manufacturing Strategies on Cost Leadership Strategy [a]

Variables	Model 1		Model 2			Model 3		
	FFs	NFFs	FFs	NFFs	T-test [b]	FFs	NFFs	T-test [b]
Controls								
Firm size	0.13	0.13	0.20	0.15		0.07	0.10	
Ownership	-0.03	-0.14	0.06	-0.17		-0.01	-0.25*	
HRM Strategy								
HRM-P			**0.47****	0.26	-1.18			
HRM-R			0.02	-0.08	-0.54			
Manufacturing								
Delivery						**0.31***	0.04	**-1.85***
Flexibility						0.10	**0.25+**	1.02
Cost						**0.33***	**0.37****	0.24
Quality						0.15	-0.03	-1.20
R^2	0.02	0.03	0.25	0.09		0.57	0.33	
ΔR^2				0.06		0.55	0.30	
F	0.40	0.80	3.83**	1.33		9.93**	4.09**	
N	50	61	51	60		51	57	

[a] Coefficients are standardized variables. HRM-P = HR Participation; HRM-R = HR Recruitment; FFs = Family Firms; NFFs = Nonfamily Firms.
[b] The formula for the *t*-test which was conducted to examine the difference between the betas of the NFFs and FFs subgroups is as follows. The *t*-test is a one-tailed test.

$$ t = \frac{\beta_1 - \beta_2}{\sqrt{\frac{SSE_1 + SSE_2}{N_1 + N_2 - 4} \; X \; \frac{\sum X_1^2 + \sum X_2^2}{(\sum X_1^2)(\sum X_2^2)}}} \qquad \text{d.f.} = N_1 + N_2 - 4 $$

Where β is the beta, *SSE* is the sum of squared errors, *X* is the functional strategy variables (HRM or manufacturing), *N* is subgroup sample size, and 1 and 2 are the NFFs and FFs subgroups respectively.
$+ \, p < 0.10$; $* \, p < 0.05$; and $** \, p < 0.01$.

For H1a to be supported, we expect a positive and significant difference between the betas for NFFs and FFs, while a negative and significant difference between the betas will provide support for H2a. Delivery has a significant relationship with CLS for FFs but an insignificant relationship for NFFs. The t-test shows that the difference between the two is statistically significant. For flexibility, the relationship is significant for NFFs but insignificant for FFs, however, the t-test indicated that there is no significant difference between the betas. Cost

manufacturing strategy is significantly related to CLS for both FFs and NFFs, but the difference between the betas is not significant. The relationship between quality and CLS is not significant for both FFs and NFFs. Thus we did not find support for H2a.

We present the results of the relationship between the functional strategies and differentiation strategy in Table 2B. HR participation strategy is significantly related to DFS for FFs but not significant for NFFs. The difference between the two beta is negative and statistically significant, contrary to our expectations. HR recruitment strategy has no significant relationship with DFS for both FFs and NFFs. These results indicate that H1b cannot be supported. Delivery strategy has no significant relationship with DFS for both FFs and NFFs. There is no significant relationship between low cost manufacturing strategy and DFS for both FFs and NFFs. However, the difference between the two betas is positive and significant. This means that it appears differences exist in the relationships between cost manufacturing strategy and DFS for FFs and NFFs. Quality is not significantly related to DFS for both FFs and NFFs. For FFs, flexibility is significantly related to DFS while for NFFs the relationship is not significant. The difference between the two betas is negative and statistically significant. Overall, the manufacturing strategy results indicate that H2b cannot be rejected.

Table 2B: Human Resource Management and Manufacturing Strategies on Differentiation [a]

Variables	Model 1		Model 2			Model 3		
	FFs	**NFFs**	**FFs**	**NFFs**	**T-test**	**FFs**	**NFFs**	**T-test**
Controls								
Firm size	0.22	0.04	0.25+	0.06		0.07	0.06	
Ownership	-0.14	0.01	-0.06	-0.02		-0.08	-0.09	
HRM Strategy								
HRM-P			**0.44****	0.12	**-1.75***			
HRM-R			0.01	-0.06	-0.38			
Manufacturing								
Delivery						0.25	0.03	-1.28
Flexibility						**0.38***	0.04	**-1.95***
Cost						-0.20	0.11	**1.79***
Quality						0.21	0.07	-0.83
R^2	0.06	0.00	0.25	0.01		0.38	0.01	
ΔR^2			0.19	0.01		0.31	0.01	
F	1.61	0.05	3.88**	0.19		4.49**	0.43	
N	52	62	51	61		51	58	

[a] Coefficients are standardized variables;   + $p < 0.10$; * $p < 0.05$; and ** $p < 0.01$.

Discussion

This study examined the role of functional strategies in developing competitive strategy in FFs and NFFs. Our results demonstrate that differences exist in the relationships between functional strategies and competitive strategies for FFs and NFFs in Ghana. The findings indicate that while HR participation and involvement strategy influences the development of both CLS and DFS for FFs, it has no impact on the two competitive strategies for NFFs. Thus, FFs in Ghana are more likely than NFFs to align their HR participation and involvement strategy with both CLS and DFS. This result is interesting because it is contrary to our expectations.

Despite the perceived view in the literature that FFs lack quality nonfamily human capital because of their self-imposed HR selection criteria (e.g., Chrisman et al. 2004), it appears that the

"familiness" culture in family firms encourages employee participation and involvement in strategic decision-making. Thus, while FFs in Ghana may not have the resources to develop sophisticated HRM strategies, it appears that the close-nit nature facilitates greater involvement in decision making. This is a significant contribution of our study.

The literature points out that manufacturing strategy is a mechanism through which a firm makes its strategic competitive choices. Because FFs and NFFs have different levels of resources, capabilities, absorptive capacities and might respond differently to the business environmental conditions, we posited that differences will exist in the relationships between manufacturing strategy and competitive strategy for the two types of firms. Our findings revealed that FFs in Ghana rely on delivery to develop their CLS more than NFFs. By developing the ability to provide fast and reliable deliveries, FFs may be able to reduce their operating and inventory related costs and thus help achieve CLS. NFFs emphasize flexibility through adjustments in capacity, product mix, and product design to develop CLS. These modifications in flexibility provide the potential to reduce overall costs in the long term. Both FFs and NFFs emphasize cost manufacturing strategy when the intention is to pursue a CLS. Quality does not influence CLS for both FFs and NFFs. This is possible because quality has become a qualifier in the business environment in Ghana and is thus not recognized as providing any specific competitive advantages.

Delivery has no impact on DFS for both FFs and NFFs. This is perhaps due to the many logistics and infrastructural challenges that manufacturers face in Ghana and thus are unable to use delivery to differentiate themselves from their competitors. FFs use flexibility to achieve a DFS. This is because FFs may have the ability to respond to short term changes in demand and thus able to respond quickly to customers' needs. Moreover, FFs have less span of control, so they will be agile and more likely to gain cooperation from their employees to recognize the ability to change volumes quickly and adapt to demand changes as important aspects of a DFS. NFFs are more likely than FFs to emphasize cost manufacturing strategy when developing a DFS. Quality is not emphasized by FFs and NFFs when pursuing DFS.

There are some limitations in the study that offer opportunities for future studies. First, the sample sizes are relatively small, reducing the power of the analyses, and thus it is possible that our inability to detect differences in some of the tests might have been due to the limited sample size. Second, we also examined the functional strategies separately. It will be worthwhile to examine the interaction of the functional strategies and their impact competitive strategy development. Third, this study did not delve into the specific ownership structure and level of involvement within family firms and as these might impact the types of strategies pursued, they should be included in future studies.

In conclusion, the findings of this study show that there are differences in the way functional strategies influence competitive strategy for FFs and NFFs. However, there is not a consistent pattern with regard to the relationships between the functional strategies and competitive strategy. Thus, additional studies are needed to shed more light on functional strategies and their role in formulating competitive strategy for FFs and NFFs. Such studies are likely to enhance our understanding of how the impact of functional strategies on competitive strategy differs between FFs and NFFs and thus contribute to the development of theory in the field of family business.

References
Acquaah, M., and K. Amoako-Gyampah (2003). "Human capital availability, competitive intensity and manufacturing priorities in a Sub-Saharan African Economy," *Journal of Comparative International Management* 6(2), 65-88..
Amoako-Gyampah, K., and Meredith (2007). Examining cumulative capabilities in a developing economy. *International Journal of Operations & Production Management*, 27(9), 928-950.

Bae, J., and J. J. Lawler (2000). "Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy," Academy *of Management Journal* 43(3), 502-517.

Bird, A., and S. Beechler (1995). "Links between business strategy and human resource management strategy in U.S. based Japanese subsidiaries: An empirical investigation," *Journal of International Business Studies* 26(1), 23-46.

Campbell-Hunt, C. (2000). "What have we learned about generic competitive strategy? A meta-analysis," *Strategic Management Journal* 21(February), 127-154.

Carlson, D.S., N. Upton, and S. Seaman (2006). "The impact of human resource practices and compensation design on performance: An analysis of family-owned SMEs," *Journal of Small Business Management* 44(4), 531-543.

Carney, M. (2005). "Corporate governance and competitive advantage in family-controlled firms," *Entrepreneurship Theory and Practice* 29, 249-266.

Chua, J. H., J. J. Chrisman, and P. Sharma (1999). "Defining the family-owned firm by behavior," *Entrepreneurship: Theory and Practice* 23(4), 19-39.

Cohen, J., and P. Cohen (1983). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. Second Ed. Hillsdale: Lawrence Erlbaum Associates.

Dess, G., G., and P. S. Davis (1984). "Porter's (1980) generic strategies as determinants of strategic group memberships and organizational performance," *Academy of Management Journal* **27**, 467-488.

Eddleston, K. A., F. W. Kellermanns, and R. Sarathy (2007). "Resource configuration in family firms: Linking resources, strategic planning, and technological opportunities to performance," *Journal of Management Studies*.

Gupta, Y. P., and T. M. Somers (1996). "Business strategy, manufacturing flexibility, and organizational performance relationships: A path analysis approach," *Production and Operations Management* 5, 204-233.

Hayes, R. H., S. C. Wheelwright (1984). *Restoring our Competitive Edge: Competing through Manufacturing*. New York: John Wiley and Sons.

Huselid, M. A. 1995. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38: 635-670.

Jayaram, J., C. Droge, and S. K. Vickery (1999). "The impact of human resource management practices on manufacturing performance," *Journal of Operations Management* 18(1), 1-20.

Khanna, T., and K. Palepu (1997). "Why focused strategies may be wrong for emerging economies," *Harvard Business Review* 75(4), 41-49.

Khatri, N. (2000). "Managing human resource for competitive advantage: A study of companies in Singapore," *International Journal of Human Resource Management* 11(2), 336-365.

Kotey, B., and C. Folker (2007). "Employee training in SMEs: Effect of size and firm type – family and nonfamily," Journal *of Small Business Management* 45(2), 214-238.

Lengnick-Hall, C. A., and M. L. Lengnick-Hall (1988). "Strategic human resource management: A review of the literature and a proposed typology," *Academy of Management Review* 13, 454-470.

Miles, R. E., and C. C. Snow (1984). "Designing human resource systems," *Organizational Dynamics* 13(1), 36-52.

Naldi, L., M. Nordqvist, K. Sjoberg, and J. Wiklund (2007). "Entrepreneurial orientation, risk taking, and performance in family firms" *Family Business Review* 22(1), 33-47.

Nelson, R. R. and S. G. Winter (1982). *An Evolutionary Theory of Economic Change.* Cambridge: Belknap.

Nunnally, J. C.and I. H. Bernstein (1994). *Psychometric Theory*, 3rd Ed. New York: McGraw-Hill.

Podsakoff, P.M., S. B. MacKenzie, Y. Y. Lee, and N. P. Podsakoff (2003). "Common method biases in behavioral research: a critical review of the literature and recommended remedies," *Journal of Applied Psychology* 88(5), 879-903.

Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*., New York: Free Press.

Rogoff, E.G., R. Kay, and Z. Hech (2003). "Evolving research in entrepreneurship and family business: Recognizing family as the oxygen that feeds the fire of entrepreneurship," *Journal of Business Venturing* 18, 559-566.

Swink, M., R. Narasimhan, and S. W. Kim (2005). "Manufacturing practices and strategy integration: effects on cost efficiency, flexibility, and market-based performance," *Decision Sciences*, 36(3), 427-57.

Ward, P. T. and R. Duray, (2000). "Manufacturing strategy in context: Environment, competitive strategy and manufacturing strategy," *Journal of Operations Manag*ement 18, 123-138.

Wu, Z., J. H. Chua, and J. J. Chrisman (2007). "Effects of family ownership and management on small business equity financing," Journal *of Business Venturing* 22, 875-895.

Youndt, M., S. Snell, J. Dean, and D. Lepak (1996). "Human resource management, manufacturing strategy, and firm performance," *Academy of Management Journal* 39, 836-866.