Innovative low-cost strategy and firm performance of restaurants

The moderation of competitive intensity

Collins Kankam-Kwarteng
Department of Marketing, Kumasi Technical University, Kumasi, Ghana

Barbara Osman
Department of Hospitality Management, Takoradi Technical University, Takoradi, Ghana, and

Jacob Donkor
Department of Marketing and Entrepreneurship, Ghana Baptist University College, Kumasi, Ghana

Abstract

Purpose – The purpose of this paper is to improve the appreciation of the moderating role of competitive intensity on the relationship between low-cost strategy and firm performance of restaurants.

Design/methodology/approach – The study uses empirical data collected from 118 restaurants operators, Ghana. The effects of relationships and the interaction of low-cost strategy and competitive intensity were tested using regression analysis.

Findings – The findings indicate the existence of a significant positive relationship between low-cost strategy and firm performance. The effect of competitive strategy on firm performance was found to be partially significant. The findings revealed that competitive intensity does moderate the relationship between low-cost strategy and firm performance of restaurants.

Practical implications – Implications of the findings for restaurant operators suggest that effective application of low-cost strategy and monitoring and managing competitive intensity results in high performance.

Originality/value – This study contributes to the existing literature on low-cost strategy, competitive intensity and firm performance. More specifically, the interaction terms of low-cost strategy and competitive intensity have been explored in this study and can be used for further investigations.

Keywords Innovation, Firm performance, Restaurants, Competitive intensity, Low-cost strategy

Paper type Research paper

Introduction

In spite of the importance of competitive strategies, research on the strategic activities of businesses in Ghana is now taking shape. Among the few studies focusing on Ghana, include Acquaah et al. (2008); Acquaah, (2011); Acquaah and Yasai-Ardekani (2008), Dadzie et al. (2013); Acquaah and Agyapong (2015), Amoako-Gyampah and Boye (2001); as well as
Acquah et al. (2008). Agyapong and Boamah (2013) have also studied the competitive nature of the business environment and their effect on the performance of firms in the country. Unfortunately, previous studies do not converge on the individual effect of innovation low-cost strategies among firms in Ghana; although generally the significance of implementing coherent innovation strategies is supported by these extant studies. Gunday et al. (2011) stated that innovation assists service firms to reduce the cost of production and delivery as well as enhance quality features.

Additionally, Hilman and Kaliappan (2014) mentioned that innovation in the hospitality industry allows the organization to achieve economies of scale, reducing the cost and gain market share. Alegre and Berbegal-Mirabent (2016) found management, core and support process in the restaurant industry that requires innovations in managing the costs. Acquah (2011) find that low-cost strategies have a strong positive effect on performance; Acquah and Agyapong (2015), Dadzie et al. (2013) and Agyapong and Boamah (2013) found that strategic cost leadership does not extract strong effects on firm performance. Based on the inconsistency in the results, there is a need for further investigation.

Perhaps the major limitation of the extant studies is that they overly focus on manufacturing oriented SME’s, (Oyewobi et al., 2016). There is not enough literature focusing on the strategic behavior of small-scale restaurants in Ghana. Conner (1991) posits that generally, conventional strategic management applies theories including contingency theory and industrial organization theory to explain performance differentials among firms. However, within the restaurants’ sector, there is generally limited research employing these theories (Hoskisson et al., 1999). Also little is known about the effect competitive intensity has on the strategic actions of a restaurant in the country. The dynamic nature of the hospitality industry coupled with the changing trends within the global economic landscape makes it significant for restaurants to formulate and implement a proactive position that response to the changes (Flint et al., 2002). In addition, Smith and Bashaw (2009) explain that the distinguishing nature of the restaurant sector is its fragmentation and uniqueness, characterized by some outfits that enter continuously due to the liberalized market. In effect, such firms need an efficient business operational strategy balanced on the dynamic competitive environment to achieve superior performance. Unfortunately, little is known concerning how restaurants deploy their strategic actions and whether or not such actions are instigated by the intensely competitive market. Among the previous known studies examining the strategic behavior of firms in Ghana, only Acquah (2011) attempted to control for the effect of competitive intensity. This work, therefore, attempts to close the gap in previous studies by focusing on the strategic actions of restaurants in Ghana. Specifically, the study investigates the performance of restaurants through the combined effects of innovative low-cost strategy and competitive intensity.

**Literature review and hypothesis development**

The conceptual framework of the study establishes a literature review of the path relationship between low-cost strategy, competitive intensity and firm performance. This leads to the development of the three study hypotheses.

**Low-cost strategy and firm performance**

Optimizing cost is significant in contemporary business operations, especially restaurants, since it is the foundation for maximization of profitability. Kraja and Osmani (2013) explained that low-cost strategies boost firm performance, mostly financial performance. Similarly, Dumbu and Chadamoyo (2012) confirmed that a positive relationship exists between low-cost strategy and operational and financial performance.
Torgovicky et al. (2005) stated that costs leadership strategies address operations, facilities, overhead, costs saving from experiences and being relatively prudent in areas such as R&D, salesforce, service, training and development. Thus, due to the returns that firms accrue by adopting cost-saving practices and technologies they can control prices that are closer to the industry average (Acquaah et al., 2010; Akingbade, 2014). With price-sensitive customers, they can capture a chunk of the market share leading to higher returns. Acquaah (2011) contend that cost leadership strategies are applied broadly by organizations in Ghana. This is because the revenues levels of most Ghanaians are very low; therefore, consumption decisions of most buyers are dependent on price and not quality (Amoako-Gyampah and Acquaah, 2008). As a result, once small-scale restaurants are more focused on customers within the informal sector, the application of a cost leadership strategy would be more relevant to their business than otherwise. It is therefore hypothesized that:

**H1.** There is a positive relationship between low-cost strategy and firm performance.

**Competitive intensity and firm performance**

Murray et al. (2011) argue that as competition increases organizations become more aggressive to counter rivals. Zahra and Covin (1995) and Pearce and Robinson (2011) noted that rivalry implies the behavior that an organization’s competitors display in areas of controlling the industry by seeking, on a continuous process, to gain an advantage over the others. Such behavior is articulated based on the number of firms competing in such a market, nature of the technology used, product differentiation, competitive prices, value for money and provision of better services (Zúñiga-Vicente and Vicente-Lorente, 2006).

An organization is not likely to achieve its objectives when the managers fail to implement strategies required to effectively stand its competitors (Amoah-Mensah, 2016; Panayides, 2003). Grawe et al. (2009) argue that with high competitive intensity managements are always on the lookout for best ways to sustain or improve existing market share. Acquaah et al. (2008) find that competitive intensity results in high performance among firms in Ghana. This assertion further corroborated by Auh and Menguc (2005) and Dibrell (2007) who argue that generally, firms develop way-out to achieve targets due to the threat of deterioration in profitability as a result of firms passively operating in such a market. The study, therefore, hypothesizes that:

**H2.** There is a positive relationship between competitive intensity and firm performance.

**Moderating of competitive intensity and low-cost strategy on firm performance**

The intensity of competition within an industry can serve as a motivation for firms to implement strategic actions. Literature suggests competition brings some level of uncertainty which inevitably affects business decisions. Acquaah et al. (2007) stress that in a fiercely competitive environment, firms that adopt a coherent competitive strategy are likely to succeed. That is intense competition motivates firms to aggressively utilize strategies actions to outplay rivals rather than being passive. Murray et al. (2011) also suggest firms cannot afford to be lethargic in a highly competitive environment. Those applying competitive strategies are projected to benefit from enhanced performance than organization doing the same when encountering less competition.
In Ghana, due to globalization consumer preferences are very high. Consumers are not only concerned about how good the food tastes but issues of the cost of food services is also paramount (Blankson et al., 2018). The increased number of new entrants and period fold up of existing restaurants coupled with the preferences of consumers justifies the need for implementing cost leadership strategy of small scale restaurants who have a relatively price conscious client base. Miller (1988) has also posited that the impact of business activities on performance is dependent on the nature of competitive intensity in the market. The dynamic level of the market influences the strategic operation to pursue. The study, therefore, hypothesizes that:


Methodology

Population and sample issues
The target population of the study was limited to restaurants in Ghana. Given the difficulty in collecting data and conducting research in the small-scale restaurant industry, a convenience sample was used as suggested in related research by Elbanna (2009). This sampling technique has been applied widely in similar studies in Ghana. Again, convenience sampling was used because of the difficulty of acquiring a full list of all the small-scale restaurants in the country to perform a random sampling procedure. A total number of 150 questionnaires were sent out, 118 of them were returned and used for the analysis representing a response rate of 79 per cent. Meanwhile, because this research focused on an organizational level unit of analysis; all the information required concerning operations of the restaurant were based on organizational unit.

The survey respondents were 84.7 per cent (representing 100 respondents) of the total sample were females whereas only 15.3 per cent (representing 18 out of 118) were males. The respondents were between the age brackets of 31-40 years representing 48.3 per cent. This is followed by the respondents who were between 21-30 years of age (representing 28.4 per cent of the total sample). The respondents who answered the survey questions were mostly owner-managers of their restaurants 47.5 per cent or managers who were also relatives to the founders 40 per cent. The proportion of respondents who held executive positions but were not related to the founders constituted only 12.5 per cent of the sample.

Questionnaire development
The survey questionnaire was designed based on the construct available from the extant literature. All the variables: low-cost strategy, competitive intensity and firm performance were measured using a seven-point Likert-scale, ranging from strongly agree to strongly disagree. Firm size, firm age and firm ownership were all included in the questionnaire as control variables.

Low-cost strategy. The low-cost strategy was measured using 11 items adapted from previous such as Dess and Davis (1984), Kim and Lim (1988) and Robinson and Pearce (1988). This was based on the information in the available literature. The items have been summarized as developing new services, segmenting the services, offering special services, Innovations in operations, and offering competitive prices.

Competitive intensity. The competitive intensity was measured using seven items. The instruments have also been used by Murray et al. (2011); Jaworski and Kohli’s (1993) and management researchers (Auh and Menguc, 2005) to study the moderating effect of
competitive intensity. These included frequency of change in customer demands, the degree of change in market structure, service innovation in the market, level of change in technology and radical changes in customer attitudes and unpredictability of encounters in the industry.

**Firm performance.** The items for financial performance were adopted and refined from the scale of Kokkinaki and Ambler (1999) and Shin and Lee (2016), resulting in 10 items. The items included sales volume, profit levels, growth in profitability, ROI, ROS, market share and growth in ROI. Operational performance (10 items) items were refined constructs from previous studies (Morgan and Turnell, 2003; Al Mamun and Fazal, 2018; Cho and Lee, 2018). The 10 items listed included flexibility in service delivery processes, consistency in providing the needs of customers, a variety of services, the time it takes to serve customers, nature of service to support customers’ resource utilization, cost of operation, reduced service failure, introducing new services and the ability to handle customer needs.

**Control variables.** To avoid model misspecification, control variables, firm size, firm age and firm ownership were included in the study. Firm size was measured based on the number of employees of the restaurants (Birley and Westhead, 1990; Sharma, 2000). Firm age was measured on how long the restaurants have been operating in the industry (Mata, 1994; Almus and Nerlinger, 1999). Firm ownership has an impact on performance (Randøy and Goel, 2003; Durand and Vargas, 2003) and was coded in the questionnaire as “1” sole proprietorship, “2” partnership and “3” family business.

**Reliability and internal consistency of study variables**
Cronbach’s alpha was used to evaluate the reliability of the various dimensions of the study variables. Hair et al. (2009) posit that a Cronbach Alpha value above 0.70 exhibits ‘acceptable’ reliability; above 0.80 is ‘good,’ and a value above 0.90 represents ‘excellent’ reliability. All the variables understudy loaded above the acceptable level, as suggested in the literature. The screening of the 7 items that measure competitive intensity recorded high 0.851. The low-cost strategy was acceptable with a Cronbach’s Alpha value for its 11 items at 0.782. Both financial and operational performance also recorded an accepted value. Ten items for financial performance dimensions recorded 0.811 and operational performance with 10 items recorded 0.712. The Variance Inflation Factors (VIF) values (Table III) indicated that there were no residual problems with the items used in measuring the firm performance.

**Results**

**Descriptive and correlation analysis**
A descriptive statistics and correlation statistics of the variables were performed (Tables I and II). Table I indicates that low-cost strategy is implemented widely within the restaurants industry. The mean score of 5.10 shows that the application of low-cost strategy is high among the small-scale restaurants. The mean score of 4.91 for competitive intensity suggests a highly competitive industry. The mean scores of firm performance components were high (Financial Performance = 5.00; Operational Performance = 5.21; and Overall Performance = 5.12). The mean values for the control variables; Firm ownership (2.02), firm age (10 years) and firm size (10 employees) were also recorded.

Table II reports the correlation statistics among the independent variables and the outcome variables. Low-cost strategy has a strong positive relationship with all the performance; operational ($r = 0.552; p < 1$ per cent), financial ($r = 0.556; p < 1$ per cent) and overall performance ($r = 0.584; p < 1$ per cent) of restaurants. Low-cost strategy is shown to have a significant positive correlation with competitive intensity ($r = 0.456; p < 1$ per cent).
Competitive intensity has a strong positive relationship with performance components: operational ($r = 0.495; p < 1$ per cent), financial ($r = 0.330; p < 1$ per cent) and overall performance ($r = 0.440; p < 1$ per cent). Firm size has a positive relationship with financial ($r = 0.296; p < 1$ per cent) and overall performance of the restaurants ($r = 0.196; p < 1$ per cent) but a weak relationship with operational performance ($r = 0.035; p > 10$ per cent). Firm size and low-cost strategy ($r = 0.143; p < 5$ per cent). Firm age and financial performance ($r = 0.163; p < 1$ per cent) operational performance ($r = 0.035; p > 10$ per cent) and overall performance ($r = 0.117; p > 10$ per cent). Firm ownership does not have strong relationship with all the performance indicators; financial performance ($r = 0.036; p > 10$ per cent), operational performance ($r = -0.001; p > 10$ per cent) and overall performance ($r = 0.03; p > 10$ per cent).

Results and model estimation

The hierarchical multiple regression technique was used to estimate the effect of the cost leadership strategy and competitive intensity on the performance of restaurants.

Table III reports the results of the model estimation involving the effect of cost leadership and competitive intensity on financial performance. Model 1 exhibits that among the control variables, only firm size has a significant positive effect on financial performance ($\beta = 0.041, p < 0.01$). The effect of firm age ($\beta = 0.006, p > 0.10$) and the ownership ($\beta = -0.062, p > 0.10$) have no influence on financial performance. The model fit, overall $R^2$ is 0.091 explains 9.1 per cent of the variations in financial performance. Model 2 firm size has a significant positive impact on financial performance ($\beta = 0.035, p < 0.01$). Firm age ($\beta = 0.001, p > 0.10$) and ownership ($\beta = -0.217, p > 0.10$). The effect of low-cost strategy on the financial performance of the restaurants ($\beta = 0.609, p < 0.01$) was significant according to model 2 results. The model fit $R^2 = 0.334$ shows that the model determines 33.4 per cent of

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-cost strategy</td>
<td>5.1027</td>
<td>0.98518</td>
</tr>
<tr>
<td>Competitive intensity</td>
<td>4.9144</td>
<td>1.00849</td>
</tr>
<tr>
<td>Operational performance</td>
<td>5.2106</td>
<td>0.91439</td>
</tr>
<tr>
<td>Financial performance</td>
<td>5.0036</td>
<td>1.19542</td>
</tr>
<tr>
<td>Overall performance</td>
<td>5.1246</td>
<td>0.95042</td>
</tr>
<tr>
<td>Firm ownership</td>
<td>2.02</td>
<td>0.457</td>
</tr>
<tr>
<td>Firm age</td>
<td>8.03</td>
<td>11.278</td>
</tr>
<tr>
<td>Firm size</td>
<td>10.15</td>
<td>8.201</td>
</tr>
</tbody>
</table>

Table I. Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm ownership</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.213**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm age</td>
<td>0.01</td>
<td>0.386**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-cost strategy</td>
<td>0.137*</td>
<td>0.143*</td>
<td>0.117</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive intensity</td>
<td>-0.012</td>
<td>0.113</td>
<td>-0.005</td>
<td>0.456**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational performance</td>
<td>-0.001</td>
<td>0.035</td>
<td>0.035</td>
<td>0.552**</td>
<td>0.495**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial performance</td>
<td>0.036</td>
<td>0.296**</td>
<td>0.163**</td>
<td>0.526**</td>
<td>0.330**</td>
<td>0.639**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Overall performance</td>
<td>0.03</td>
<td>0.196**</td>
<td>0.117</td>
<td>0.584**</td>
<td>0.440**</td>
<td>0.876**</td>
<td>0.931**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table II. Correlation matrix

Notes: *Significant at the 0.05 level (two-tailed); **significant at the 0.01 level (two-tailed)
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1a</th>
<th>Model 2a</th>
<th>Model 3a</th>
<th>Model 4a</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.507 (19.40)***</td>
<td>1.736 (4.974)***</td>
<td>1.430 (3.624)***</td>
<td>1.292 (3.148)***</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.006 (0.847)</td>
<td>0.001 (0.231)</td>
<td>0.002 (0.399)</td>
<td>0.003 (0.475)</td>
<td>1.082</td>
</tr>
<tr>
<td>Ownership</td>
<td>-0.062 (−0.391)</td>
<td>-0.217 (−1.577)</td>
<td>-0.193 (−1.400)</td>
<td>-0.189 (−1.369)</td>
<td>1.207</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.041 (4.239)***</td>
<td>0.035 (4.173)***</td>
<td>0.033 (3.987)***</td>
<td>0.033 (3.941)***</td>
<td>1.263</td>
</tr>
<tr>
<td>Low-cost (LC)</td>
<td>0.609 (9.675)***</td>
<td>0.556 (7.857)***</td>
<td>0.576 (7.931)***</td>
<td>0.576 (7.931)***</td>
<td>1.395</td>
</tr>
<tr>
<td>Competitive intensity (CI)</td>
<td></td>
<td>0.112 (1.642)</td>
<td>0.112 (1.636)</td>
<td>0.112 (1.636)</td>
<td>1.292</td>
</tr>
<tr>
<td>Low-cost × CI</td>
<td></td>
<td></td>
<td>0.065 (1.213)</td>
<td>0.065 (1.213)</td>
<td>1.081</td>
</tr>
<tr>
<td>R-square</td>
<td>0.091</td>
<td>0.334</td>
<td>0.341</td>
<td>0.344</td>
<td></td>
</tr>
<tr>
<td>ΔR-square</td>
<td>0.091</td>
<td>0.243</td>
<td>0.007</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>8.604***</td>
<td>32.169***</td>
<td>26.444***</td>
<td>22.323***</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** ***p < 0.01
the variation in performance. The change in $R^2$ showing 72.75 per cent (0.243/0.334 × 100) of the total predictive power of the model and determined 24.3 per cent of the total variations in performance of small-scale restaurants.

In model 3, firm size has a significant positive impact on financial performance ($\beta = 0.033, p < 0.01$). Firm age ($\beta = 0.002, p > 0.10$) and the ownership ($\beta = -0.062, p > 0.10$) have no influence on financial performance. The model fit, $R^2$ is 0.341 and explains 34.1 per cent of the variations in financial performance. Low-Cost has significant positive impact on financial performance ($\beta = 0.556, p < 0.01$). Competitive intensity has a positive but weak impact on financial performance ($\beta = 0.112, p > 0.10$) and a change in $R^2$, accounting for 2.05 per cent (0.007/0.341*100) of the total predictive power of the model 3 and explains 0.7 per cent of the total variation in performance.

Model 4, competitive intensity and low-cost strategy do not have moderating influence on financial performance ($\beta = -0.065, p > 0.10$) and $R^2$ change of 0.004 exhibits that the predictive power of the model is 0.4 per cent.

Table IV captures the results specifying the impact of low-cost strategy on operational performance using four interconnected models. From model 1, firm size ($\beta = 0.003, p > 0.10$), firm age ($\beta = 0.002, p > 0.10$) and ownership ($\beta = -0.013, p > 0.10$) have a significant influence on operational performance. ($\beta = 0.021, p < 0.01$) with overall $R^2$ 0.002 (0.2 per cent) of the variation in operational performance.

Model 2 indicates that the implementation of low-cost strategy augments operational performance ($\beta = 0.527, p < 0.01$). The change in $R^2$ accounting for 99.32 per cent (0.310/ 0.312 × 100) of the total predictive power of the model 2 and explains 31 per cent of the variation in operational performance. Firm-specific variables were however found not to have a significant impact on operational performance: firm size ($\beta = -0.002, p > 0.10$), firm age ($\beta = -0.002, p > 0.10$) and ownership ($\beta = -0.147, p > 0.10$).

In Model 3, competitive intensity has a strong influence on operational performance ($\beta = 0.278, p < 0.01$). The change in $R^2$ indicating 18.96 per cent (0.073/0.385 × 100) of the total predictive power of the model and determined 7.3 per cent of the variation in operational performance. The impact of low-cost on operational performance ($\beta = 0.394, p < 0.01$) was found to be significant and $R^2$ 0.385 (38.5 per cent) of the variations in operational performance.

In model 4, the interactions of competitive intensity and low-cost strategy do not have a significant influence on operational performance ($\beta = -0.035, p > 0.10$). The effect of low-cost on operational performance of the restaurants ($\beta = 0.383, p < 0.01$) was found to be significant and positive. The results of the model show that competitive intensity has a strong positive impact on operational performance ($\beta = 0.297, p < 0.01$).

Table V, model 1 shows that firm size has a positive and significant impact on the overall performance ($\beta = 0.021, p < 0.01$). The effect of firm age ($\beta = 0.004, p > 0.10$) and ownership ($\beta = -0.019, p > 0.10$) were found not to have any effect on overall performance. The model fit $R^2$ is 0.040 (4 per cent) showing that the model determines 4 per cent of the variation in overall performance.

Model 2 results show that the inclusion of low-cost variable enhances the predictive power of the estimated model. The change in $R^2$ revealing 88.86 per cent (0.319/0.359 × 100) of the total predictive power of the model 2 and determines 31.9 per cent of the total variations in overall performance. Meanwhile, the effect of low-cost on the overall performance ($\beta = 0.555, p < 0.01$) was found to be significant with the model fit $R^2$ 0.359 (35.9 per cent) of the variation in overall performance. Firm size was shown to have a significant positive impact on overall performance ($\beta = 0.015, p < 0.05$), firm age
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1c</th>
<th>Model 2c</th>
<th>Model 3c</th>
<th>Model 4c</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta (t-values)</td>
<td>Beta (t-values)</td>
<td>Beta (t-values)</td>
<td>Beta (t-values)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>5.163 (27.73)**</td>
<td>2.768 (10.20)**</td>
<td>2.009 (6.893)**</td>
<td>2.084 (6.864)**</td>
<td>1.082</td>
</tr>
<tr>
<td>Age</td>
<td>0.002 (0.361)</td>
<td>-0.002 (-0.406)</td>
<td>0.001 (0.140)</td>
<td>0.002 (0.083)</td>
<td>1.207</td>
</tr>
<tr>
<td>Ownership</td>
<td>-0.013 (-0.101)</td>
<td>-0.147 (-1.371)</td>
<td>-0.087 (-0.855)</td>
<td>-0.089 (-0.877)</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.003 (0.388)</td>
<td>-0.002 (-0.374)</td>
<td>-0.006 (-0.982)</td>
<td>-0.006 (-0.946)</td>
<td></td>
</tr>
<tr>
<td>Low-cost (LC)</td>
<td>0.527 (10.756)**</td>
<td>0.394 (7.535)**</td>
<td>0.278 (5.511)**</td>
<td>0.279 (5.514)**</td>
<td>1.302</td>
</tr>
<tr>
<td>Competitive intensity (CI)</td>
<td></td>
<td>0.383 (7.124)**</td>
<td>0.279 (5.514)**</td>
<td>0.279 (5.514)**</td>
<td></td>
</tr>
<tr>
<td>Low-cost × CI</td>
<td></td>
<td>-0.035 (-0.883)</td>
<td>0.385</td>
<td>0.387</td>
<td>1.081</td>
</tr>
<tr>
<td>$R$-square</td>
<td>0.002</td>
<td>0.312</td>
<td>0.385</td>
<td>0.387</td>
<td></td>
</tr>
<tr>
<td>Δ $R$-square</td>
<td>0.002</td>
<td>0.310</td>
<td>0.073</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>$F$-statistic</td>
<td>0.154</td>
<td>29.091***</td>
<td>32.007***</td>
<td>25.779***</td>
<td></td>
</tr>
</tbody>
</table>

Note: ***p < 0.01
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1b Beta (t-values)</th>
<th>Model 2b Beta (t-values)</th>
<th>Model 3b Beta (t-values)</th>
<th>Model 4b Beta (t-values)</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.84 (25.509)*****</td>
<td>2.315 (8.509)*****</td>
<td>1.779 (5.910)*****</td>
<td>1.729 (5.512)*****</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.004 (0.717)</td>
<td>-0.003 (-0.007)</td>
<td>0.002 (0.380)</td>
<td>0.002 (0.415)</td>
<td></td>
</tr>
<tr>
<td>Ownership</td>
<td>-0.019 (-0.144)</td>
<td>-0.160 (-1.488)</td>
<td>-0.118 (-1.117)</td>
<td>-0.116 (-1.100)</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.021 (2.645)*****</td>
<td>0.015 (2.393)****</td>
<td>0.013 (1.982)****</td>
<td>0.012 (1.955)***</td>
<td></td>
</tr>
<tr>
<td>Low-cost (LC)</td>
<td></td>
<td>0.555 (11.304)*****</td>
<td>0.461 (8.547)*****</td>
<td>0.469 (8.437)*****</td>
<td></td>
</tr>
<tr>
<td>Competitive Intensity (CI)</td>
<td></td>
<td></td>
<td>0.197 (3.773)*****</td>
<td>0.197 (3.765)*****</td>
<td></td>
</tr>
<tr>
<td>Low-cost × CI</td>
<td></td>
<td></td>
<td></td>
<td>0.024 (0.573)</td>
<td>1.081</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.040</td>
<td>0.359</td>
<td>0.393</td>
<td>0.394</td>
<td></td>
</tr>
<tr>
<td>Δ R-Square</td>
<td>0.040</td>
<td>0.319</td>
<td>0.034</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>3.627**</td>
<td>36.065***</td>
<td>33.135***</td>
<td>27.595***</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** ***p < 0.001; **p < 0.05; *p < 0.10**
Model 3, indicate that competitive intensity has a strong influence on the overall performance ($\beta = 0.197$, $p < 0.01$) and the change in $R^2$ indicating 8.65 per cent ($0.034/0.393 \times 100$) of the total predictive power of the model and determined 3.4 per cent of the variation in the overall performance. The effect of low-cost on the overall performance ($\beta = 0.461$, $p < 0.01$) was found to be significant. Firm size ($\beta = 0.013$, $p < 0.05$) was shown to have a significant effect on overall performance but firm age ($\beta = 0.002$, $p > 0.10$) and the ownership ($\beta = -0.118$, $p > 0.10$) have no influence on overall performance.

Model 4, competitive intensity and low-cost strategy do not have moderating influence on overall performance ($\beta = 0.024$, $p > 0.10$) and the change in $R^2$ indicating 0.25 per cent ($0.001/0.394 \times 100$) of the total predictive power of the model and explain 0.1 per cent of the variation in overall performance. Meanwhile, the effect of low-cost strategy on the overall performance ($\beta = 0.469$, $p < 0.01$) was found to be significant. Competitive intensity has a strong positive impact on overall performance ($\beta = 0.197$, $p < 0.01$).

Meanwhile, the effect of firm size was also found to be significant on overall performance ($\beta = 0.012$, $p < 0.10$).

### Evaluation of hypothesis testing and discussion of results

Based on the results of the regression analysis, it can be summarized that the pursuit of low-cost strategies augments the performance of restaurants in Ghana. Performance of a restaurant implementing a low-cost strategy is expected to be enhanced (Cadogan et al., 2003). Thus, $H1$ which states low-cost strategy is positively related to firm performance is supported. This is consistent with the results of the empirical studies on Ghana; including the studies of Acquaah et al. (2008) and Duran and Akci (2015).

Furthermore, it was shown that competitive intensity has a positive relationship with performance (Auh and Menguc, 2005). However, the level of impact is mixed. It is shown that whereas competitive intensity has a strong and positive effect on operational ($\beta = 0.279$, $p < 0.01$) and overall performance ($\beta = 0.197$, $p < 0.01$), its effect on financial performance was rather insignificant ($\beta = 0.112$, $p > 0.10$). Based on this $H2$ which stated that competitive intensity has a positive influence on restaurant performance is partially supported. Mahmoud (2010) found that competitive intensity influence performances of small and medium scale enterprises in Ghana; and found that competitive intensity has a strong positive influence on business performance (Langerak, 2003). The findings of this current study reveal that the effect of competitive intensity is likely to enhance overall performance through its impact on operational performance (Grawe et al., 2009) but not through financial performance; as it effects on financial performance is weak.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Statement</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1$</td>
<td>There is a positive relationship between low-cost strategy and firm performance</td>
<td>Supported</td>
</tr>
<tr>
<td>$H2$</td>
<td>There is a positive relationship between competitive intensity and firm performance</td>
<td>Partially supported</td>
</tr>
<tr>
<td>$H3$</td>
<td>Competitive intensity moderates the relationship between low-cost strategy and firm performance</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

### Table VI. Hypotheses test results
Finally, all three model estimations consistently proved that the interaction of competitive intensity and low-cost strategy does not impose any significant influence on the performance of small scale restaurants industry. The result, therefore, does not provide adequate evidence to support $H_3$ which states that competitive intensity moderates the relationship between low-cost strategy and performance. Table VI provides a summarized result of hypotheses testing.

**Managerial implications**

In practical terms, the result reminds operators of restaurants the significance of low-cost strategy as well as designing programs to improve their competitiveness. Restaurant operators should notice the important role innovative low-cost strategy plays in further shaping their operational and financial performance (Campbell-Hunt, 2000). This research findings exhibit that competitive intensity does not strengthen the positive effects of low-cost strategy on firm performance. However, the fact that the competitive intensity alone contributes to firm performance points to strong internal capabilities in the restaurant industry (Acquaah and Yasai-Ardekani, 2006; Bowman and Ambrosini, 1997). Significantly, for the restaurant industry, the dimensionality of competition can still not be underestimated even though it has statistically shown that it has no role in performance outcomes.

This finding suggests that managers of restaurants can build strong organizational capabilities in the direction of achieving low-cost leadership and competitiveness. For instance, they can be involved in innovative competitive strategies such as sustainable customer-focused activities, structuring and improving brand or organizational identification, delivering a broad range of products or services, emphasizing controls of operations and overhead costs, improving existing customer service. The control of operating and overhead cost involved in these internal activities would help managers of the restaurants to appreciate the effort towards building organizational capabilities for low-cost strategies aimed at achieving competitiveness in the industry.

**Conclusion**

The purpose of this study was to investigate the effects of innovative low-cost strategies and competitive intensity on performance of restaurants in Ghana. Based on the study results, it can be concluded that the pursuit of low-cost strategy is extremely relevant to restaurants in Ghana. Concerning the effect of competitive intensity, it is observed that though it is positively related to all the performance indicators, the strength of the impact is weak in terms of financial performance. The effect of the relationship supports the findings Cadogan *et al.* (2003).

Though competitive intensity has been widely acknowledged to have a positive influence on firm performance, we can conclude per the findings of this current study that the effect of competitive intensity on firm performance is possible through its effect on operational performance rather than through financial performance. Competitive intensity is found not to statistically moderating the relationship between low-cost strategy and performance and is found not to support the findings of Slater *et al.* (2006). This implies that the effectiveness of the low-cost strategic activities of the restaurants is immune to the level of competition in the market. That is whether competition increases or decreases, so far as the restaurant is found to pursue the appropriate strategic actions, it is guaranteed to survive and become relevant in the market.
References


Further reading

Corresponding author
Collins Kankam-Kwarteng can be contacted at: colkamm@gmail.com