Statistical Analysis of the Relationship between Strategic Planning and the Performance of Poultry Farming Cooperatives in Gitega Province (Burundi)

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Abstract
The purpose of this study was to analyze the relationship between strategic planning and the performance (both financial and non-financial) of poultry farming coopera-
tives in Gitega province (Burundi). The study used descriptive and correlational research designs. The population of this study comprised of members of seven poultry farming cooperatives from two communes of the province of Gitega, in Burundi. The total number of the members was 3252. From a total number of 3252 members of seven poultry farming cooperatives, a sample of 356 was obtained using Slovin’s formula. From 356 questionnaires that were administered, 352 were returned and analyzed. The findings revealed the existence of a significant positive relationship between strategic planning and the performance of poultry farming cooperatives in Burundi, rs=.394, n=352, p<0.01.

**Keywords:** Strategic planning, cooperative, performance

### 1. Introduction

Nowadays, there is a strong emphasis by the Burundian government on developing and strengthening the cooperative movement. For example, the government allocates BIF 10 million (around USD 5000) to each cooperative created on each Burundian hill. So, there is an urgent need to evaluate the performance of these cooperatives.

A good number of authors (e.g., Gomes et al., 2004; Kennerley and Neely, 2003; Cumby and Conrod, 2001; Medori and Steeple, 2000) have criticized the use of financial performance indicators and have suggested the use of non-financial performance indicators. They argue that, financial performance indicators are irrelevant in measuring the performance of an organization in today’s business environment which is very turbulent and highly competitive. Cumby and Conrod (2001) remark that the limits of financial measures are even more important or blatant for innovative companies, whose value is strongly linked to intangible assets and intellectual capital factors, such as the loyalty of customers, employee satisfaction, internal processes and the degree of innovation of the company. In order to remedy to the above disagreement, this study prefers to use both financial and non-financial indicators to measure the relationship between strategic planning and the performance of poultry farming cooperatives in Burundi. Therefore, the Robert Kaplan and David Norton’s balanced scorecard theory (see Kaplan & Norton, 1996) has been chosen to measure the performance of poultry farming cooperatives in this study because it takes into consideration both financial and non-financial performance measurements. The balanced scorecard is a performance measurement instrument facilitating a pro-active management of one or more activities as part of a progress approach. This instrument contributes to reducing uncertainty and facilitates the risk-taking inherent in all decisions. The theory of balanced scorecard is based on a multidimensional vision of performance by taking into consideration four main axes of analysis namely
finance, learning and growth, internal business processes, and customer satisfaction. According to Kaplan and Norton (1996) Financial perspective is about measuring financial performance and ensuring the efficient use of financial resources. The learning and growth perspective is about the organizational performance seen from the perspective of human capital, the information system, and the organizational culture. The business processes perspective is about the performance of key internal business processes in terms of efficiency and quality of delivered products and services. The customer perspective is concerned with the perception of performance from the customer’s point of view.

Strategic planning is an important management tool for a good organizational performance. Khoshtaria (2018) conducted a study of 104 Georgian companies and concluded that companies that value strategic planning have better results than those which do not. It is very interesting to discover that strategic planning is able to assist organizations in managing crisis and thence improving their performance. In their research in GAZA strip, Al Shobaki, Amuna, and Naser (2017) found strategic planning to be an important tool for an organization’s performance because it can help in crisis management. So, strategic planning can be a very helpful management tool for a country like Burundi which has been experiencing so many crises.

Insofar as cooperatives are concerned, strategic planning enhances their performance by showing them the direction in order to achieve their goals. Soboh et al. (2009) measured the performance levels within planning farming cooperatives and found a high-performance rate with regard to the achievement of their goals. But, beyond the mere achievement of goals, strategic planning can assist farming cooperatives to achieve sustainable development. Research conducted by Baumgartner and Rauter (2017) revealed a strong relationship between strategic planning and organizational performance for sustainable development.

From the so far mentioned scholars, one may be tempted to hastily conclude that strategic planning is the panacea for an organization’s performance. However, a number of other scholars disagree on the fact that strategic planning always improves the organization’s performance. For example, a study conducted by Ali (2018) analyzed 15 research papers from well-renowned electronic academic resources and databases and concluded that majority of them showed no relationship between strategic planning and organizational performance. Some scholars (Bresser & Bishop, 1983) have gone even very far to find a negative relationship between strategic planning and organizational performance. They strongly criticized strategic planning because of its uncertain effects on the organizational performance. They believe that strategic planning in uncertain and complex environment can cause more complications than the solutions it can provide. According to them strategic planning
tends to constrain creativity and spontaneity by creating rigidity and encouraging excessive bureaucracy.

In view of the above empirical results, it is clear that the question of the relationship between strategic planning and organizational performance remains unresolved and problematic.

Therefore, this paper intends to find out how strategic planning relates to the performance of Burundian poultry farming cooperatives. In order to achieve this objective, the following question is going to guide our work: is there any significant relationship between strategic planning and the performance of poultry farming cooperatives in Burundi?

2. Methods

This study used quantitative method where descriptive and correlational research designs were applied. The population of this study comprised of members of seven poultry farming cooperatives from two communes of the province of Gitega (in Burundi) namely: commune Bugendana and commune Gitega. The total number of the members was 3252. From this population, a sample of 356 was obtained using Slovin’s formula \( n = \frac{N}{1+N(e)^2} \) where \( n \) is the desired sample size; \( N \), the population size; \( e \), the margin error. So, this study tolerated 5% of the margin error. The sample size was therefore computed as follows: \( n = \frac{3252}{1+3252(0.05)^2} = 356.18 \). The selection of the participants to this study was done using the probability sampling technique where simple random sampling method was applied. 356 questionnaires were administered to respondents where 352 questionnaires were returned. The data gathered from the field were edited, coded and analyzed using SPSS (Statistical Package for Social Sciences) version 25.0. The validity of the instrument was verified using the expert judgment method. Using Excel 2016, a Content Validity Index of 0.94 was found which is greater than 0.7. The reliability of the instrument was performed using SPSS where the Cronbach’s Alpha Coefficient was above 0.7 as shown in the table 1 below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha Coefficient</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic planning</td>
<td>0.767</td>
<td>16</td>
</tr>
<tr>
<td>Poultry farming cooperatives’</td>
<td>0.752</td>
<td>16</td>
</tr>
</tbody>
</table>
Statistical analysis of the relationship between strategic planning and ...

Spearman rank correlation, a nonparametric statistic, was used because the test of normality which was performed using SPSS revealed that the population was not normally distributed. To test the normality, we used the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality as shown in the table below:

Table 2. Tests of Normality

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnova</th>
<th></th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Df</td>
<td>Sig.</td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>.132</td>
<td>352</td>
<td>.000</td>
</tr>
<tr>
<td>PFC_Performance</td>
<td>.151</td>
<td>352</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

The rule is that, for normally distributed population, the Kolmogorov-Smirnov and Shapiro-Wilk tests would be non-significant. Therefore, since these tests are significant, our population is not normally distributed.

3. Results and discussion

This section presents and discusses the results from the primary data collected from the field.

3.1 Gender of the respondents

Table 3. Gender of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>143</td>
<td>40.6</td>
<td>40.6</td>
<td>40.6</td>
</tr>
<tr>
<td>Female</td>
<td>209</td>
<td>59.4</td>
<td>59.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>352</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

As we can realize in the table 3 above, females (59.4%) were more than males (40.6%). These findings show that females are more interested in cooperative’s businesses unlike their counterpart males. Therefore, the cooperative movement should be encouraged in order to strike a good gender balance.
3.2 Relationship between strategic planning and the performance of poultry farming cooperatives in Burundi

Spearman’s rank-order correlation was performed to examine the relationships between strategic planning and the performance of poultry farming cooperatives in Burundi as shown in the table below.

**Table 4.** Relationship between strategic planning and the performance of poultry farming cooperatives in Burundi

<table>
<thead>
<tr>
<th>Spearman's rho</th>
<th>Strategic_Planning</th>
<th>PFC_Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.394**</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>352</td>
</tr>
<tr>
<td>PFC_Performance</td>
<td>Correlation</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td>.394**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>352</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

As we can see in the correlation table above, there was positive and significant correlation between strategic planning and the performance of poultry farming cooperatives in Burundi, rs=.394, n=352, p<0.01.

The findings of this study contradict the findings from research studies conducted by Bresser and Bishop (1983), and by Ali (2018). In their studies, Bresser & Bishop (1983) found a negative relationship between strategic planning and organizational performance; while Ali (2018) found no relationship at all between strategic planning and organizational performance.

However, these findings concur with the findings from three different studies conducted on three different parts of the Globe. The first study was conducted by Khoshtaria (2018) in Georgia and concluded that companies that value strategic planning have better results than those which do not. The second one was conducted by Soboh et al. (2009) and found a high-performance rate within planning farming cooperatives as compared to those which are not. The third one was conducted by Baumgartner and Rauter (2017) and revealed a strong relationship between strategic planning and organizational performance for sustainable development.
4. Conclusion

This study set out to find out whether or not there is a relationship between strategic planning and the performance of poultry farming cooperatives in Burundi. From the findings of this study, we can conclude that there is a positively significant relationship between strategic planning and the performance of poultry farming cooperatives in Burundi, rs=.394, n=352, p<0.01.

References


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