Examination of Strategic Control and Continuous Improvement as Competition Enablers in Small and Micro Enterprises: A Study of Selected Pure Water Manufacturing Firms in Ebonyi State

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Abstract: This paper examined strategic control and continuous improvement as competition enablers among SMEs in Ebonyi state. The paper adopted a survey design, and the study was conducted using a sample of 79 middle and top level management staff drawn from a population of 89 respondents. Relevant data was collected using a five point likert scale questionnaire and the study covered 12 pure water processing firms across the three geopolitical zones in Ebonyi state. The statistical tool used for data analysis is the Non-Parametric Kruskalwallis test (H) using 20.0 version of statistical package for social sciences (SPSS). From the findings, the paper concludes that strategic control and continuous improvement are supportive and reinforces each other. It therefore recommends that for SMEs to enhance their competitiveness, it is important to closely monitor strategy implementations in order to timely identify areas of improvement that can guarantee competitive edge. Furthermore, the drive for market control especially by new entrants must be aligned to an internal cost efficiency programme, if such market control must be sustainable.

Keywords : competition, continuous improvement, cost efficiency, innovativeness, strategic control.

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Introduction

The competition in business environment has been likened to “theatre of war”. For any force (organization) to effectively combat her enemy (competitors), it requires a well-defined, flexible and timely implemented strategy. It is equally said in war that “the best defence is attack”. This simply implies that, for organizations to win, they must always be steps ahead of their competitors. However, this must not be in a misdirected step but in directions that accurately gauge the responds of competitors to earlier strategic moves while adjusting the present strategy to accommodate such changes. This may not be possible if there is no strategic control. Strategic control involves tracking a strategy as its being implemented. It is also concerned with detecting problems or changes in the strategy and making necessary adjustments. As a manager, you tend to ask yourself questions, such as whether the company is moving in the right direction, or whether your assumptions about major trends and changes in the company's environment are correct. Such questions necessitate the establishment of strategic controls. Furthermore, for organization to remain competitive and survive in the ever changing business environment, it is pertinent that such organization build a culture of reinventing their products and process to meet the present and future needs of its customers. This requires that such organization must be on the path of continuous improvement (CI). Continuous improvement therefore is the internal attitude organizations adopt in order to enable them continuously read the market trend and realign their operations with present and future market realities.

In Nigeria, the growth and possible internationalization of small and medium scale enterprises are hindered by the absence of certain competition enablers. For example, the absence of social capital which is supposed to be provided by the government has widened the production cost differential between locally made goods and imported goods. This has contributed to reducing the consumption of locally made goods beyond the quality argument; hence, they cannot compete favourably in domestic and international market. To survive therefore, SMEs in Nigeria must look inward to develop an internal device that can help them reduce cost and enhance their competitiveness.

In Ebonyi state and indeed the south-eastern part of Nigeria, one of the fastest growing industries is the water packaging industry. This may not be unconnected with topography of the state that has made independent drilling of bore holes and other sources of quality water difficult, hence the resort to pure water. The firms engaged in water processing and packaging operate majorly in small scale but in large numbers thereby making it imperative for constant review of operational strategies.

Objectives

The general objective of this paper is to examine strategic control and continuous improvement as competition enablers in the pure water industry in Ebonyi state. The researchers investigated the following specific objectives;

i. Examine the effects of innovativeness on the market competitiveness of pure water firms
ii. Examine the effects of cost efficiency on SMEs competitiveness in Ebonyi state

Hypotheses

H_{O1}: Innovativeness does not enable SMEs competitiveness in Ebonyi State
H_{O2}: Cost efficiency does not enable SMEs competitiveness in Ebonyi State

Review of Literature
Strategic Control
According to Ndegwa (2013), strategic control is a critical component of the strategic management process and in particular the implementation process, as it involves tracking, monitoring and evaluating the effectiveness of the implemented strategies, as well as making any necessary adjustments and improvements where necessary. Typically, strategic control is viewed as a tool of strategy implementation necessary to steer an organization through the changes that take place in response to the organization's external and internal situations while providing feedback or feed forward to the strategy management process. They are formal target-setting, measurement, and feedback systems used by managers to evaluate whether a company is achieving desired behaviour and implementing its strategy successfully**.** Evaluation and control is the process in which corporate activities and performance results are monitored so that actual performance can be compared with desired performance. Managers at all levels use the resulting information to take corrective action and resolve problems. Although evaluation and control is the final major element of strategic management, it also can pinpoint weaknesses in previously implemented strategic plans and thus stimulate the entire process to begin again (Hunger and Wheelen, 2011). Its importance lies in its ability to coordinate the tasks performed by managers through the control of performance. In the absence of coordinating and controlling mechanisms, managers may pursue goals, which are inconsistent with the overall objectives of the organization (Kazmi, 2008). The process of evaluation involves four steps namely; setting standards of performance, measuring Performance against pre-set standards, Analyzing variances between standards and results; and Taking corrective action on the identified undesirable variances. It is an important process since it provides feedback, validates strategic choices, and ensures congruence between decisions and strategic intentions and feed forward information to new strategy formulation.

Strategic control entails the use of long-term and strategically relevant criteria for the evaluation of business-level managers' actions and performance (Hitt et al., 1996). In this case, measurement systems have to contribute to the implementation of the strategic orientations in guiding the action by ensuring short- and long-term performance evaluation. Therefore it can be construed that strategic control is aimed at monitoring the course of progress in the predetermined direction, and evaluation of organizational performance of organizational units to assess their contribution to the achievement of organizational objectives.

Types of Strategic Control

According to Schreyogg and Steinmann (1987), the different types of strategic control are;

Premise Control: Every strategy is based on certain planning premises or predictions. Premise control is designed to check methodically and constantly whether the premises on which a strategy is grounded on are still valid. If you discover that an important premise is no longer valid, the strategy may have to be changed. The sooner you recognize and reject an invalid premise, the better. This is because the strategy can be adjusted to reflect the reality.

Special Alert Control: A special alert control is the rigorous and rapid reassessment of an organization's strategy because of the occurrence of an immediate, unforeseen event. An example of such event is the acquisition of your competitor by an outsider. Such an event will trigger an immediate and intense reassessment of the firm's strategy. Form crisis teams to handle your company's initial response to the unforeseen events.

Implementation Control; Implementing a strategy takes place as a series of steps, activities, investments and acts that occur over a lengthy period. As a manager, you'll mobilize resources, carry out special projects and employ or reassign staff. Implementation control is the type of strategic control that must be carried out as events unfold. There are two types of implementation controls: strategic thrusts or projects, and milestone reviews. Strategic thrusts provide you with information that helps you determine whether the overall strategy is shaping up as planned. With milestone reviews, you monitor the progress of the strategy at various intervals or milestones.

Strategic Surveillance: Strategic surveillance is designed to observe a wide range of events within and outside your organization that are likely to affect the track of your organization's strategy.

It's based on the idea that you can uncover important yet unanticipated information by monitoring multiple information sources. Such sources include trade magazines, journals such as The Wall Street Journal, trade conferences, conversations and observations.

Continuous Improvement

Continuous improvement is an ongoing effort to improve products, services, or processes. It is more focused on customer service, process improvement, higher product quality and long-term strategies (summers, 2003). According to Boer et al. (2000), Continuous Improvement (CI) is a planned and organized system for ongoing changes in processes toward enhancing organization-wide performance. The purpose of CI programs is constant organizational renewal achieved by institutionalizing a system for dynamic change in relation to environmental requirements (Delbridge and Barton, 2002). These changes are made with the involvement of frontline employees in systematic learning closer to the point where the processes being improved are operating (Jorgensen et al., 2003).

Role of Continuous Improvement Programs

With the increasing role of frontline employees in designing their own work processes it is important to ensure that the dispersed changes being executed have a common direction. Thus, we can summarize the role of CI programs as (1) contributing to dynamic strategic capabilities (2) creating new knowledge and learning (3) aligning process improvement goals to overarching organizational objectives.

- Dynamic strategic initiatives: A majority of organizations today operate in ever-changing environments; as a result responsiveness and dynamic capabilities have become the norm for survival and growth (Source; Business Week story, "Speed Demons", 2006). The manoeuvres that organizations employ to utilize their capabilities in relation to their environments and to keep moving toward their goals are collectively referred to as strategy.

Conventional methods that assign the strategy formulation and implementation responsibilities to top management alone do not work well in ever-changing environments (Garvin, 1993). First, because information needs to pass through several layers, it takes longer for upper management decisions to reach operational front-lines and this affects the speed and accuracy of the communication (Beer et al., 2005). Second, different organizational levels are impacted by different and multiple environmental factors making it difficult for upper management to keep track. Third, a conventional top-down structure inhibits any bottom-up communication about environmental changes.

Overcoming these weaknesses of conventional methods requires the displacement of traditional 'strategy-structure-systems' frameworks, characterized by formulation of strategy at the top levels with directed implementation at the front-lines controlled via relationship structures and reporting systems. Such bureaucratic frameworks have had to be replaced with organic 'purpose-process-people' types of frameworks that treat people as knowledge resources and encourage their participation in discovering better ways of executing processes to accomplish broad organizational purposes (Parnell, 2005).

Participative management styles that provide autonomy and facilitate proactive changes at middle and frontline levels (Tourish, 2005) are needed for building dynamic capabilities necessary for long term success. CI programs can serve as a vehicle for achieving dynamic strategic capabilities through the involvement of middle and lower levels of management (Pfeffer, 2005). While employees continue to follow standardized work practices, they are encouraged to seek out and propose improvements in the processes they work on, thus targeting efficiency and creativity at the same time.

Regardless of their varying primary operational objectives toward performance improvement such as inventory reduction or control of variation, CI programs follow a common scheme of engaging frontline employees. By assigning employees a proactive role in operations strategy formulation and implementation, CI programs can create dynamic capabilities that are a source of sustainable competitive advantage.

- Learning: Frontline employees are trained in routine ways of operating processes, which include selecting among alternate paths of action in response to changes in operating conditions. Sometimes these routine ways of operating processes need to be changed to improve process performance. The changes that need to be made can be discovered through projects executed using CI protocols and practices, and involving employees working on the processes. The two nested activities – routine selection among alternate paths in a process and changes in the routine ways of operating the process – are referred to as single loop and double loop learning. CI programs thus have a major role to play in double loop learning, also known as organizational learning or knowledge creation (Bhuiyan and Baghel, 2005). Linderman et al., (2003) define organizational learning or knowledge management as "improving actions through better knowledge and understanding. It is the detection and correction of errors. These descriptions of organizational learning are congruent with the objectives of CI programs.

Krogh et al., (2001), posits that through training and reward systems CI programs can contribute the means and the encouragement for organizational learning. Further, efficient knowledge-sharing practices in CI programs can add to the ability of the organization to respond to environmental changes, thus enhancing its dynamic capabilities.

Alignment: As organizations make the shift from top-down management to more top-down-bottom-up combinations for strategy formulation and implementation, the need for mechanisms ensuring alignment of purpose arises. Alignment warrants common understanding of strategic choices made by the organization. An overarching strategy within which lower level managers can participate is critical to achieving alignment of purpose. CI programs can help not only to maintain a balance between efficiency and creativity and between standardization and innovation (Gibson and Birkinshaw, 2004), a systems view. Different autonomous frontline projects working toward a common purpose help prevent sub-optimization of organizational

Further, CI practices that support and coordinate participative lower-management and frontlines can provide organizations the ability to maintain a cohesive front while making changes in response to environmental dynamism.

Continuous Improvement Strategies

This section describes two interrelated improvement strategies, TQM and Lean production, that are identified as central for understanding how improvements through experience feedback could become efficient and effective. It should be noted that Lean production is preferred by the case companies in this thesis, but much of the context in which these companies are active is regulated and influenced by ISO standards more related to TQM, which is thus considered first.

- *Total Quality Management:* Klefsjö *et al.* (2008) state that quality management through TQM is a widespread concept for improved competitiveness, efficiency and profitability. TQM is defined as both a philosophy and a set of guiding principles (Bergman and Klefsjö, 2003). The values of TQM are summarized in six cornerstones or core values: (1) focus on the customer, (2) base decisions on facts, (3) focus on processes, (4) improve continuously, (5) let everyone be committed, and (6) top management commitment. The cornerstones are supported by a set of techniques, many of which are also used within the Lean production system (Arnheiter and Maleyeff, 2005). Quality in production, i.e. the *quality story* developed over most of the twentieth century, mainly after World War II. During this time contributions to the "story" were made both by scientists (eastern and western) and various consultants. Thus, when describing the quality movement and quality management principles there is not a single truth, but rather diverse views and developments have been expressed regarding quality management and the implementation of quality practice.

- *Lean production:* The Lean production concept was introduced in 1990s. Womack *et al.* (2007) in the book "*The machine that changed the world"*, which resulted from a five-year benchmarking study conducted at Massachusetts Institute of Technology (MIT), regarding car production all over the world. The machine that is referred to in the title of the book is Toyota's product development, supplier management, customer support, and manufacturing processes collectively. Lean production is thus based on, and influenced by, the development of the Toyota Production System (TPS) created by Taicci Ohno in the 1950s (Ohno, 1988). TPS and Lean production are actually different descriptions of the same concept, but TPS is related to the Japanese manufacturing culture and Lean production is related to the American view of what TPS consists of. The basic definition of Lean production seems to differ, but it is often essentially: "waste elimination and value creation". The key characteristic is the use of less resource, as input to a less demanding manufacturing process, and demand for higher performance as output, resulting in enhanced customer satisfaction and (hence) a higher market share (Katayama and Bennett, 1996). The book *Lean thinking* by Womack and Jones (2003) completed the Lean concept by presenting five guiding Lean principles of production: (1) value, (2) value stream, (3) flow, (4) pull, and (5) perfection. These Lean principles are best mastered when the importance of people is recognized (Womack and Jones, 2003).

Mann (2005) argue that Lean tools and practices should be mainly applied in order to improve the people involved; focusing merely on results will cause poor follow-up, lack of interest, no ownership of improvements and diminishing productivity

Methodology

This paper adopted a survey design, and the study was conducted using a sample of 79 middle and top level management staff drawn from a population of 89 respondents. Relevant data was collected using a five point likert scale and the study covered 12 pure water processing firms across the three geopolitical zones in Ebonyi state. The statistical tool used for data analysis is the Non-Parametric Kruskalwallis test using 20.0 version of statistical package for social sciences (SPSS). The kruskawalis which is a non-parametric equivalent for one-way ANOVA may be described thus:

$$T = H = \frac{12}{N(N+1)} \sum_{i=1}^{k} \frac{R_i^2}{n_i} - 3(N+1)$$

The decision rule is to reject the null hypothesis if

$H \geq \chi^2_{(k-1)}$, where k is the degrees of freedom.

Data Analysis and Discussion of Results

SPSS output for Hypothesis One

```
NPAR TESTS
  /K-W=VAR00001 BY VAR00002(1 5)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
VAR00001	25	15.8000	9.06458	5.00	36.00
VAR00002	25	3.0000	1.44338	1.00	5.00

Kruskal-Wallis Test

Ranks

	VAR00002	N	Mean Rank
VAR00001	1.00	5	10.30
	2.00	5	23.00
	3.00	5	12.90
	4.00	5	15.20
	5.00	5	3.60
	Total	**25**	

Test Statistics[a,b]

	VAR00001
Chi-Square	18.572
df	4
Asymp. Sig.	.001

a. Kruskal Wallis Test
b. Grouping Variable: VAR00002

Discussion of Result: From the SPSS output, the p-value is 0.001, which is less than the level of significance (0.05), therefore we reject the null hypothesis and conclude that innovativeness is a significant enabler of competition among SMEs in Ebonyi state

SPSS Output For Hypothesis Two

```
NPAR TESTS
 /K-W=VAR00001 BY VAR00002 (1 5)
 /STATISTICS DESCRIPTIVES
 /MISSING ANALYSIS.
```

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
VAR00001	25	15.8000	9.05539	2.00	33.00
VAR00002	25	3.0000	1.44338	1.00	5.00

Ranks

	VAR00002	N	Mean Rank
VAR00001	**1.00**	**5**	**13.10**
	2.00	5	21.90
	3.00	5	14.60
	4.00	5	11.60
	5.00	5	3.80
	Total	25	

Test Statistics[a,b]

	VAR00001
Chi-Square	15.579
df	4
Asymp. Sig.	.004

a. Kruskal Wallis Test
b. Grouping Variable: VAR00002

Discussion of Result: From the SPSS output, the p-value is 0.004, which is less than the level of significance (0.05); we therefore reject the null hypothesis and conclude that cost efficiency is a significant enabler in SMEs competitiveness

Conclusion and Recommendation

From the diverse literatures reviewed, and the findings from the analysis of the data gathered, the paper concludes that strategic control and continuous improvement are supportive and reinforces each other. Therefore, for SMEs to enhance their competitiveness, it is important to closely monitor strategy implementations in order to timely identify areas of improvement that can guarantee competitive edge. Furthermore, the drive for market control especially by new entrants must be aligned to an internal cost efficiency programme, if such market control must be sustainable.

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