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The Relationship between Strategy Mapping and the Strategy Formulation, Communication and Implementation

A Thesis Submitted in Fulfillment of the Requirements for the
Master of Business Administration

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ABSTRACT

Business strategies are difficult to be described, clearly understood, easily communicated, efficiently implemented and effectively evaluated in order to be improved. Thus, accelerating the need for a common visual language used by every one inside and outside the organization, for an effective and efficient strategy communication, implementation and improvement.

However, strategy can't be efficiently implemented if it can't be clearly understood, and it can't be clearly understood if it can't be well described. Accordingly, you must first describe your chosen strategy to have a unified clear interpretation of that strategy, then measure the strategy for what needs to be implemented and finally you can improve that strategy by your own measurements. So we should have a systematic continuous cycle of improvement for our strategic management and communication process and in order to achieve this we must first construct a reliable and logical cause and effect framework to describe and improve our chosen strategy.

Based on reviewing the previous literature, a Balanced Score-card (BSC) Strategy Map is needed to maintain such framework which will be introduced throughout this research. The strategy map is a visual presentation of an organization's critical success factors and the cause-and-effect relations between them. Strategy maps can be used to depict any organizational strategy through a comprehensive integrated framework of tangible and intangible assets and outcomes. Additionally, strategy maps can illustrate how the duties of each employee can be aligned to the vision, mission and objectives of his/her organization. The main objective of this research is to study how strategy maps can be used in decreasing the gap between strategy formulation and strategy implementation from two opposite directions for the purpose of better strategy communication and improvement.

This research can be characterized as a qualitative and quantitative research. The empirical part of this research consists of one case applied to an Egyptian private educational institution as a suggested framework for a Continuous Strategy Communication and Improvement Model, after reviewing many strategy maps designed by different educational institutions in many developed countries such as European, American and Asian countries.

CHAPTER ONE
Introduction to Research

1.1 Introduction

Due to the complex nature of business strategy that makes it difficult to be well described, commonly interpreted and easily communicated, most of the strategies fail in the implementation phase. Accordingly, Scholey (2005) pointed out that the Strategy map can help organizations overcome this communication difficulty by providing these organizations with an opportunity to describe and communicate their different strategies in various picture formats. He added that it also helps in achieving better top-down communication, which improves each organizational member's understanding, awareness and interpretation of that chosen strategy and allows for better strategy implementation and improvement.

This research will study how strategy mapping can be used in reducing many of these communication issues through the use of something most people can understand, which is the picture that can tell the organizational strategy in the form of a visual story. By this way, it closes the gap between strategy formulation and implementation through better strategy communication.

In addition to that, this research will discuss the role of the strategy map as an effective performance management tool that evolved after the development of various performance measures. Moreover, this research will investigate how the strategy map can act as a link between strategy implementation and formulation (through the strategy evaluation phase) for the purpose of strategy improvement, as we'll see in the strategy communication and improvement model introduced by this research.

This suggested model acts as a closed-loop for continuous strategy communication and improvement that bridges the gap between the strategy formulation and implementation from two ways: strategy communication (from one side) and strategy evaluation (from the other side) through a non stop process of improvement. It can be compared to a strategic circulatory system for pumping the lifeblood -which can be viewed in the real life organizations in the form of newly formulated organizational strategies- of any organizational success. This strategic circulatory system is an important organ in any living successful organization. It communicates and transfers the formulated elements of any chosen strategy to each cell in each department at each organizational level preventing many diseases resulting from ineffective implementation of that chosen strategy. It helps stabilizing the organizational temperature to achieve the overall organizational vision through

effective implementation of that strategy aligned with the organizational mission statement. Then it carries the feedback after the effective implementation of that strategy to the main senders in order to be clearly evaluated for the purpose of continuous improvement. By this way, the strategy can be pumped upward and downward in each level of the organization to provide the required nutrients (tangible and intangible assets and outcomes) for enhancing the overall organizational performance.

1.2 The Research Problem and Questions

The gap between the strategy formulation phase and the strategy implementation phase -represented by ineffective strategy communication and improvement- is a subject that has concerned both strategy academics and practitioners for many years. Different ways and tools have been developed for bridging this gap. This research is concerned about one of these tools – the strategy map.

However, in the current strategy literature, there is a lack of a detailed model addressing the relationship between the strategy mapping and the strategy formulation, communication, implementation and improvement. Thus, this research will study the opportunity of integrating the strategic management process with the communication process into one closed-loop model, which has been applied through out this research to one Egyptian private educational institution, as a suggested framework for continuous improvement that can be generalized, later on, by many strategic practitioners and academics in different organizations and various industries.

Additionally, it addresses the effect of the strategy map on helping the educational institutions and universities in measuring and managing their performance, as this is related directly to their chosen strategies and how effectively and efficiently these strategies are communicated, implemented and improved.

Specifically, it deals with the following basic questions:

- Is there a relationship between having a shared understanding of strategy formulation elements and achieving an effective strategy description?

- Is there a relationship between having an effective strategy description (as a set of logical cause and effect relationships between different strategic activities) and having one clear interpretation of that strategy among all levels (clear unified strategy understanding)?
- Is there a relationship between reaching that clear strategy understanding (one clear common interpretation of that chosen strategy) and the ease and effectiveness of strategy implementation phase?
- Is there a relationship between having a better linkage of tangible and intangible assets and outcomes (financial and non financial indicators) through the use of strategy mapping and achieving a better strategy evaluation?
- Is there a relationship between achieving a better strategy evaluation from different perspectives and accomplishing an easier improvement of that chosen strategy?

1.3 The Importance of the Research

The importance of this research lies in its contribution to the literature of the strategic and performance management from a developing country prospective (Egypt), as the Balanced Scorecard strategy map has been implemented in many developed countries such as European, American and Asian countries for many years but has been ignored in the Arab world especially in Egypt.

Moreover, this research introduces a model that integrates the strategic management process along with its three main phases (formulation, implementation and evaluation) with one of the most popular communication models for the purpose of continuous strategic improvement.

Additionally, this research will capture the attention on applying the strategy mapping to an Egyptian university, as the BSC strategy map has been used in the business sector but not widely applied to the educational sector especially in Egypt.

The application of strategy mapping to an Egyptian University can help in measuring and managing the performance of this university as it relates directly to its chosen strategy through the strategy evaluation phase. Moreover it can help in implementing its chosen strategy effectively as more attention is always paid to strategy development or formulation than strategy implementation and improvement.

1.4 The Research objectives

(A) Using the Strategy Map as a common visual language for Communication

- 1.4.1** To capture the attention of leaders who craft each organizational strategy to do a better job at communicating that strategy to the "doers" of the organization to help make it real and tangible at their levels.
- 1.4.2** To study the role of the strategy mapping in linking the strategy formulation phase with the strategy implementation phase through the use of cause-and-effect diagrams in depicting and visualizing each strategy (i.e. strategy communication).
- 1.4.3** To study the effect of the strategy mapping on the strategy execution phase as many strategies fail in the execution stage as a result of communication issues. Strategy mapping alleviates many of these communication issues through the use of pictures, something everyone can commonly understand.

(B) Using the Strategy Map as a common visual language for Improvement

- 1.4.4** To study the role of the strategy mapping in linking the strategy implementation phase once more with the strategy formulation phase but in the opposite direction through the use of interdependent financial and non financial indicators for the purpose of strategy evaluation (i.e. strategy improvement).
- 1.4.5** To show the impact of the strategy maps on closing the huge gap between the vision, mission and different strategies formulated at the top, and between the same strategies but implemented differently at lower levels down in the same organization, through building the bridge between these three initiatives: strategy implementation, employee empowerment and feedback for continuous improvement especially in the educational sector.
- 1.4.6** To find the effect of the strategy map on ensuring that a balanced scorecard is linked to each organization's strategy, so that we can reach full alignment to the overall organizational vision and mission statements.

(C) Integrating the strategic management system of one Egyptian private educational institution with a two-ways communication process model for the purpose of continuously improving its newly formulated strategies (e.g. e-learning strategy and sustainable interdependent cross-cultural strategy).

1.5 The Research Hypotheses

In order to achieve these research objectives, the following hypotheses were developed:

H 1: The more the understanding of strategy formulation elements, the better the strategy can be described through strategy mapping as a set of logical cause and effect relationships between different strategy activities (a set of drivers for desired outcomes).

H 2: The better the strategy can be described as a set of logical cause and effect relationships between different strategy activities, the more unified understanding and clear interpretation of that strategy among all levels.

H 3: The less the differences in individuals' interpretation of an organization's strategy, the easier and more effective strategy implementation will be.

H 4: This hypothesis is divided into two sub-hypotheses as follows:

H 4/1: The better the financial and non financial performance indicators can be linked into measurable cause and effect framework through strategy mapping, the easier the strategy can be evaluated.

H 4/2: The easier the strategy can be evaluated from different perspectives, the more the chosen strategy can be improved.

These research hypotheses were developed based on what Norton (1999) have discussed about a set of premises upon which the Balanced Scorecard (BSC) design process is built, and one of these premises stated that strategy can be described as a set of cause-and-effect relationships between different strategy activities that are the drivers of desired outcomes.

1.6 The Research Models

1.6.1 Research Graphical Model

Closed-loop Model for Continuous Strategy Communication and Improvement

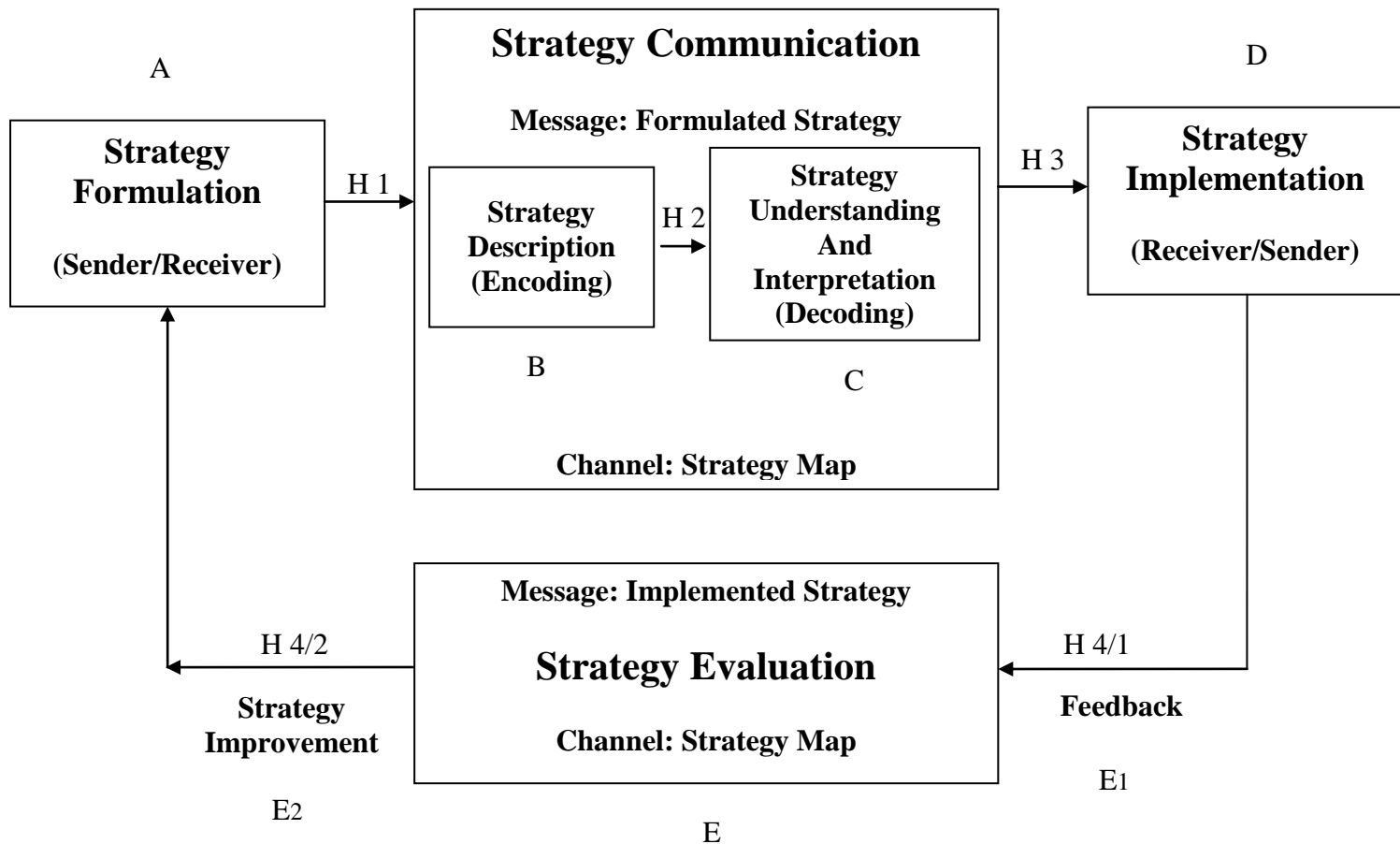


Figure (1): This Research Graphical Model

1.6.2 Research Verbal Model

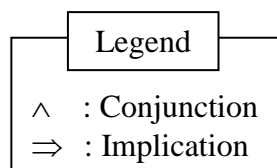
Based on Schramm's (1955) interactive model of communication (cited in belch & belch, 2007), a continuous strategy communication process needs basic elements to be effective:

- a. Source/Sender: Everyone responsible for the strategy formulation.

- b. Receiver: Everyone responsible for implementing that formulated strategy at each organizational level, department, branch and unit.
- c. Message: The chosen formulated strategy through the strategy communication and the implemented strategy through the strategy evaluation.
- d. Channel: The strategy map as a visual communication and performance management tool.
- e. Encoding: Clear strategy description.
- f. Decoding: Unified strategy understanding and interpretation.
- g. Feedback: Through the strategy evaluation which is later on transformed into strategy improvement. This could be achieved when the receiver in the strategy implementation act as the sender for communicating the feedback of the evaluated strategy back to the source in the strategy formulation.

1.6.3 Research Mathematical Logical Model

$A \Rightarrow B$	i.e. if A is true then B is true
$B \Rightarrow C$	i.e. if B is true then C is true
$C \Rightarrow D$	i.e. if C is true then D is true
$D \Rightarrow E1$	i.e. if D is true then E1 is true
$E1 \Rightarrow E2$	i.e. if E1 is true then E2 is true
$E2 \Rightarrow A$	i.e. if E2 is true then A is true
$E1 \wedge E2 \Rightarrow E$	i.e. if E1 is true and E2 is true then E is true



1.7 The Research Limitations

1.7.1 The research will be applied only to one Egyptian educational institution; and not being applied to other Egyptian sectors due to the importance of applying the strategy mapping to the educational sector (which is revealed throughout this research study). As very few studies were conducted to discuss the importance of strategy mapping to the Egyptian Educational Sector.

1.7.2 The research will be applied only to one private University (MSA University); and not including a sample from other public or private universities, due to obstacles in finding detailed data for more than one university.

1.7.3 The research is limited to building a strategic audit framework using MSA University as a model, based on different metrics without the disclosure of actual figures due to its confidentiality.

1.8 The Research Structure

This research is organized into six main Chapters. Chapter one is an introduction to the research. Chapter two is concerned about reviewing the relevant previous literature related to this research area, which is divided into four main parts: the first one is related to researchers' definitions of the Strategy Map, the second one is concerned about the use of the Strategy Map as a common visual language for Communication, while the third part discusses the use of the Strategy Map as a common visual language for improvement and finally the fourth part presents many strategy maps designed by different educational institutions in many developed countries such as European, American and Asian countries.

Chapter three discusses the research methodology, population, sampling, measurement and scaling, data collection and analysis conducted for this research.

This research can be characterized as a qualitative and quantitative research. Accordingly, the empirical part of this research will be presented in Chapter four in the form of a qualitative analysis to an integrated comprehensive closed-loop strategy communication and improvement process, applied to an Egyptian private educational institution as a suggested framework for continuous improvement.

Chapter five shows the results of the data analyses -using the SPSS software- and the relationship between the research variables, then reviews, discusses and interprets these research results. Finally, Chapter six discusses the summary of the research findings, while presenting its conclusions and main recommendations, along with suggestions for future research.

CHAPTER TWO
Literature Review

CHAPTER THREE
Research Methodology

3.1 Introduction

This research reviewed the relevant previous literature regarding strategic management, Business Communications, performance measurement and especially the BSC strategy map. Moreover, this research presents a suggested framework of an integrated closed-loop for a continuous process of strategy communication and improvement model, which is designed and applied to one Egyptian private university, while using the BSC strategy map as an important strategy communication channel in this integrated model.

In addition, this research topic was examined in practice in one case Egyptian educational institution (MSA University) for two important reasons: the first one lies in the importance of applying the strategy mapping to an Egyptian university as the BSC strategy map has been used world wide in the business sector but not widely applied to the educational sector especially in Egypt; while the second reason emerges from the ease of access to the required detailed data, as the researcher is working in this private university as an Instructor of Strategic management and Business Communications courses.

However, this research recommends further studies and researches to be conducted, in order to generalize and apply this model to other private and public Egyptian educational institutions, in addition to other business and industrial sectors.

3.2 Research Design

In order to test the research specific hypotheses and examine the validity of various relationships among different variables included in these research hypotheses, the research design was chosen to be a Conclusive Descriptive research.

This conducted research can be characterized as a qualitative and quantitative research. The qualitative part of this research was applied to MSA University (Egyptian private university), through carrying out a comprehensive strategic audit, to gain a qualitative insight and understanding of the primary data collected through: (a) Depth Interviews conducted with some individuals of MSA leaders, teaching and administrative staff, and (b) Focus Groups held with MSA internal (MSA teaching and administrative staff) and external customers (MSA students and alumni).

While, the quantitative part of this research was applied to the same university, to quantify the primary data collected, through personal and electronic (via e-mails) surveys, then a quantitative statistical analysis is used to interpret and analyze this quantitative data.

A single cross sectional design was chosen as the questionnaires will be distributed and collected once (The questionnaire developed for this research is provided in Appendix A), after illustrating the required strategy maps for MSA university by the researcher (e.g. e-learning strategy map and sustainable interdependent cross-cultural exchange strategy map) and conducting strategy mapping workshops for MSA teaching and administrative staff as well as MSA students, for the purpose of giving a common understanding of the importance of strategy mapping to MSA, explaining the integrated closed-loop model of this research and discussing a conducted strategic audit for analyzing MSA strategic position in the Egyptian educational sector. Then, evaluating the changes that took place in the level of MSA strategy understanding and interpretation of its staff, before the strategy maps' workshops were conducted, and their improved performance after these sessions.

3.3 Research Sampling

According to Eisenhardt (1989), case study is a research approach that concentrates on understanding and interpreting the dynamics presented within single settings. A Case study is carried out in order to test and examine in-depth certain topic in a selected case (cited in Antola *et al.*). These features were one of the main reasons (in addition to the previously stated reasons) for choosing the case research approach to be applied in this study to MSA University.

- The Target Population (Universe “N”) in this case research includes all MSA teaching and administrative staff working in eight different faculties at MSA University (i.e. 1,106 individuals); the Extent: MSA University; Time: period of survey (2010).
- The Sample “n”: All the teaching and administrative staff working in the Faculty of Management Sciences; the Sampling Unit: Professors, Professors Assistants, Lecturers, Lecturers Assistants, Teaching Assistants

and all the administrative staff working in the Faculty of Management Sciences; the Sample Size: 75 individuals.

- The Sampling Technique: Non probability judgmental Sample (Faculty of Management Sciences) was chosen, based on the researcher judgment and opinion that the individuals working in the Faculty of Management Sciences can better understand the continuous process of strategy communication and improvement presented in this research, based on their educational background and experience.
- A detailed profile of MSA University is provided in Appendix B.

3.4 Data Collection

In order to test the research hypotheses, two types of data were required:

A. Primary Data collected from:

1. Questionnaires (Surveys): As quantitative descriptive primary data were needed, questionnaires were distributed and collected once, after conducting the strategy mapping process and introducing MSA strategy maps depicted by the researcher, through various strategy maps workshops for the Faculty of Management Sciences teaching and administrative staff.
2. Depth Interviews: As qualitative primary data were required, depth interviews were held with MSA University leaders and decision makers (e.g. Faculty of Management Sciences leaders, MSA library manager, MIS team members).
3. Focus Groups: As qualitative primary data were needed, focus groups were conducted with MSA internal customers (MSA teaching and administrative staff) as well as MSA external customers (MSA students and alumni, especially those students in the Faculty of Management Sciences and Biotechnology).
4. All the strategic matrices and the performance management models that were made by the researcher for this research (e.g. Strategic Groups, Issues Priority Matrix, EFAS, IFAS, Industry Success Matrix, BCG Matrix, TWOS Matrix and other strategic matrices).

B. Secondary Data collected from:

1. Internal data available within the university's Databases, either ready to be used or require further processing (e.g. MSA knowledge Management System).
2. External data: strategic and performance management published materials from the internet websites.

Table (21): Types and Sources of Data required for Testing these Research Hypotheses

Hypotheses	Variables	Data Required	Type of data	Sources
H1: The more the understanding of strategy formulation elements, the better the strategy can be described through strategy mapping as a set of logical cause and effect relationships between different strategy activities	<ul style="list-style-type: none"> - Variable A: Strategy Formulation - Variable B: Strategy Description <p>$A \Rightarrow$ implies B (i.e. if A is true then B is true)</p>	<ul style="list-style-type: none"> - Individuals' level of understanding to MSA strategy formulation elements - The degree of having a better description to MSA formulated strategy 	Primary	Questionnaire
H2: The better the strategy can be described as a set of logical cause and effect relationships between different strategy activities, the more unified understanding and clear interpretation of that strategy among all levels	<ul style="list-style-type: none"> - Variable B: Strategy Description - Variable C: Strategy Understanding and Interpretation <p>$B \Rightarrow$ implies C (i.e. if B is true then C is true)</p>	<ul style="list-style-type: none"> - The degree of having a better description to MSA formulated strategy - The degree of having a unified understanding and clear interpretation of that formulated strategy among all levels 	Primary	Questionnaire

<p>H3: The less the differences in individuals' interpretation of an organization's strategy, the easier (more efficient) and more effective strategy implementation will be</p>	<p>- Variable C: Strategy Understanding and Interpretation</p> <p>- Variable D: Strategy Implementation</p> <p>$C \Rightarrow D$ (i.e. if C is true then D is true)</p>	<p>- The degree of having a unified interpretation of that formulated strategy among all levels</p> <p>- The degree of having an effective and efficient strategy implementation</p>	<p>Primary</p>	<p>Questionnaire</p>
<p>H4/1: The better the financial and non financial performance indicators can be linked into measurable cause and effect framework through strategy mapping, the easier the strategy can be evaluated (the more effective and efficient strategy evaluation)</p>	<p>- Variable D: Strategy Implementation</p> <p>- Variable E1: Strategy Evaluation</p> <p>$D \Rightarrow E1$ (i.e. if D is true then E1 is true)</p>	<p>- The degree of having an effective and efficient strategy implementation</p> <p>- The degree of having an effective and efficient strategy evaluation</p>	<p>Primary</p>	<p>Questionnaire</p>
<p>H4/2: The easier the strategy can be evaluated from different perspectives, the more the chosen strategy can be improved</p>	<p>- Variable E1: Strategy Evaluation</p> <p>- E2: Strategy Improvement</p> <p>$E1 \Rightarrow E2$ (i.e. if E1 is true then E2 is true)</p>	<p>- The degree of having an effective and efficient strategy evaluation</p> <p>- The degree of having an effective and efficient strategy improvement</p>	<p>Primary</p>	<p>Questionnaire</p>

3.5 Measurement and Scaling

The questionnaire developed for this research (Appendix A) included 101 questions that covered all the data required for testing the research hypotheses.

The Interval Likert scale was used in this research questionnaire as a non comparative itemized rating scaling technique, this measurement scale consists of 5 response categories ranging from "1= strongly disagree" to "5= strongly agree" which requires MSA respondents to indicate a degree of agreement or disagreement of each of the series of statements related to this research questions.

Table (22): This Research Questionnaire's Questions, Variables and Scaling Technique

Variable	Questionnaire Questions	Scaling Technique
A: Strategy Formulation	q1.1.1 - q1.1.2 - q1.1.3 - q1.1.4 q1.2.1 - q1.2.2 - q1.2.3 - q1.2.4 q1.2.5 - q1.3.1 - q1.3.2 - q1.3.3 q1.3.4 - q1.4.1 - q1.4.2 - q1.4.3 q1.4.4 - q1.4.5 - q1.4.6 - q1.5.1 q1.5.2 - q1.6.1 - q1.6.2 - q1.6.3	Interval Likert scale
B: Strategy Description	q2.1.1 - q2.1.2 - q2.1.3 - q2.1.4 q2.1.5 - q2.1.6 - q2.1.8 - q2.1.9 q2.1.10 - q2.1.11	Interval Likert scale
C: Strategy Understanding and Interpretation	q2.2.1 - q2.2.2 - q2.2.3 - q2.2.4 q2.2.5 - q2.2.6 - q2.2.9 - q2.2.10 q2.2.11 - q2.2.12 - q2.2.13- q2.2.14 q2.2.15 - q2.2.16 - q2.2.17 - q2.2.18	Interval Likert scale
D: Strategy Implementation	q3.1.1 - q3.1.2 - q3.1.3 - q3.1.4 q3.1.5 - q3.2.1 - q3.2.2 - q3.2.3 q3.3.1- q3.3.2 - q3.3.3 - q3.3.4 q3.4.1 - q3.4.2 - q3.4.3 - q3.5.1 q3.6.1 - q3.6.2 - q3.6.3 - q3.7.1 q3.7.2 - q3.7.3 - q3.8.1 - q3.8.2 q3.8.3 - q3.8.4 - q3.8.5	Interval Likert scale

E1: Strategy Evaluation	q4.1.1 - q4.1.2 - q4.1.3 - q4.1.4 q4.1.5 - q4.1.6 - q4.2.1 - q4.2.2 q4.2.3 - q4.3.1 - q4.3.2 - q4.3.3 q4.4.1 - q4.4.2 - q4.4.3 - q4.4.4	Interval Likert scale
E2: Strategy Improvement	q5.1 - q5.2 - q5.3 - q5.4 - q5.5 q5.6 - q5.7 - q5.8	Interval Likert scale

3.6 Data Analysis

Statistical Package for Social Sciences (SPSS) is one of the leading computer packages for analyzing survey data and is the principle package for analyzing data from surveys conducted in the social sciences. Therefore, SPSS was used to test the Correlation between the variables in each hypothesis, the Reliability and Factor Analysis of these research variables.

Quantitative Data analysis was made using the SPSS to analyze the primary data collected from the research questionnaires.

While, the Qualitative Data analysis was conducted using different strategic matrices and performance management models that were made by the researcher for this study, which is presented in chapter four (e.g. Strategic Groups, Issues Priority Matrix, TWOS Matrix and other strategic matrices).

CHAPTER FOUR

**A Suggested Framework for an Integrated
Comprehensive Strategy Communication and
Continuous Improvement Closed-loop
Applied to an Egyptian Private Educational
Institution (MSA University)**

4.1 Introduction

The Balanced Scorecard Strategy Map has proven to be a powerful tool for communicating strategy so that it can be acted upon. But a tool is only as good as the story it tells, so before you use a Strategy Map to create organizational alignment using specific strategy, make sure that the Strategy Map tells the story of that organizational strategy effectively and efficiently.

In MSA, if you ask 10 leaders to describe the strategic priorities of the university, there will be 10 different answers. If you ask 10 analysts to develop scorecards for MSA, there will be 10 different scorecards.

Strategy maps provide a logical and reliable way to describe the organizational strategy. The Balanced Scorecard Strategy map serves as the chart of accounts for each strategy, providing taxonomy of common goals, measures, and outcomes by which MSA can be linked. The strategy map acts as the income statement for strategy, showing how various tangible and intangible resources are converted into desired financial and non financial outcomes; reflecting the different units of measurement and the time delays between resource consumption and the desired results.

By clarifying and communicating MSA different strategies through various strategy maps, MSA has achieved impressive results:

First, the strategy map facilitated a change in MSA culture to one more focused on the implementation of each strategy – the shared language and common ways to measure success provided by the strategy map are intended to help leaders, teaching and administrative staff see the value in cooperating more toward the achievement of common goals.

Second, balanced scorecard strategy map will assist MSA in both measuring and managing performance as it relates directly to the chosen strategy. From a cause-and-effect viewpoint, MSA believes that, through this accomplishment, it is now balanced for many years of success, both financial and non financial outcomes.

The formulation of each strategy is an art. However, the description of each formulated strategy should not be only an art, but should also include specific standards. If we can describe strategy in a more disciplined way, we can increase the likelihood of successful implementation. With a Balanced Scorecard Strategy map

that tells the story of each strategy, MSA now has a reliable foundation for the design of an integrated strategic management system.

4.2 Building MSA Comprehensive Strategic Audit using the Top Down Approach (through dreaming about the future and analyzing the current situation)

The best way to build MSA strategy maps and its Comprehensive Strategic Audit is from the top down, starting with the destination and then charting the routes that will lead there. MSA leaders should first review their mission statement and their core quality values - why their university exists and what it believes in.

Additionally, MSA managers should develop a strategic quality based vision, or what the university wants to become. This vision should create a clear picture of the university's overall strategic quality based goals. Each strategy must then define the logic of how to arrive at that destination.

4.2.1 MSA VISION

To become a leading private university in Egypt and in the Middle East, and to be respected nationally and internationally for advancing communities through providing quality featured educational services. MSA pledges to work hard every day to improve its ability in exceeding stakeholders' expectations, through a non-stop never ending process of improvement in the learning, teaching, and research activities.

"Our vision reflects our service to society and we pursue our vision in the belief that all those with an interest in the University should expect no lesser ambition".

4.2.2 MSA MISSION STATEMENT

MSA mission is to exceed its students' needs through offering a wide array of quality based, non-traditional educational programs built around a quality driven educational culture. The University also promotes continuous improvement in the learning, teaching, research and scholarship activities (regarding both our internal and external customers), in selected areas of the creative arts, health, human development, humanities and social sciences.

Students are from Egypt, Arab countries and other foreign countries. MSA creates scientific and strategic thinkers (Both under graduate and post graduate students) who become life-long learners who can make informed decisions and valuable contributions to society and the world. At MSA, quality based teaching and learning are the highest priorities.

Just as MSA values its students, the University also values its staff members who have committed their talents and careers to advance its mission. MSA pledges to support their work, to encourage their academic development, to evaluate their professional performance and to compensate them at nationally competitive levels. This community strives to treat its members with civility and respect.

Students, faculty, and staff value learning, contribute to the development of new knowledge management system through scholarly activities, and participate in community and public service responding to the needs of society.

In doing so, MSA will exceed stakeholders' expectations of different levels of quality perceived by different students; leading technology; and financial stability.

Table (23): Evaluation Matrix of MSA Mission Statement

Customers	Services	Market	Technology	Concern for survival, Growth and profitability	Self-concept	Concern for public image	Philosophy	Concern for employees
YES	YES	YES	YES	YES	YES	YES	YES	YES

4.2.3 MSA SHARED QUALITY EDUCATIONAL VALUES

MSA is operating in an increasingly competitive world. To succeed MSA needs a set of shared quality educational values - principles to guide the university in its behavior, work and decisions, now and for the future. These are the values that MSA aspires to have at the core of all of its activities: the challenge is to make the values real by practicing them on a day to day basis and delivering what MSA promises. MSA University values work as an integral part of MSA strategy - setting out the principles of how MSA work together.

MSA is committed to:

a) Investing in People by

- Valuing the different expertise of all staff and recognizing their contribution to MSA quality driven mission and goals.
- Promoting a positive climate of mutual respect and co-operation between all groups of staff, with open and tolerant discussion of important issues.
- Providing MSA teaching and administrative staff with reasonable workloads, well-defined responsibilities, achievable aims and a safe educational environment.
- Seeking diversity of knowledge, background and experience in recruiting MSA staff, and equality of opportunity in managing MSA internal processes.
- Offering learning and growth opportunities to all staff aligned with MSA strategies, with emphasis on synergy, teamwork, empowerment, employee involvement and continuous improvement.
- Encouraging cross-cultural communication, flexibility, creativity and innovation.
- Helping each other to be open to new ideas, to learn, to share good practice, and to succeed.
- Developing MSA leaders so that they are effective in coaching, empowering, involving, motivating and supporting MSA staff members.

b) Achieving Quality in all MSA Activities by

- Ensuring quality driven educational culture in course delivery and support, research and scholarship, and external collaboration (Middlesex and Greenwich Universities).
- Empowering those who deliver and support the curriculum to make judgments about quality standards and to take appropriate corrective actions.
- Investing and reinvesting in MSA various resources (technological, human, and financial resources) that will help MSA in creating and sustaining its competitive advantage.
- Listening carefully to MSA students, partners (Middlesex and Greenwich Universities) and other stakeholders when establishing and exceeding their needs and expectations.
- Using peer judgment (e.g., MSA peer jury/review and peer observation applied to its different faculties) as the most effective way of assuring standards and enhancing the quality of provision.
- Evaluating MSA activities effectively using reasonable, achievable targets and measures, which are reviewed fairly and openly.
- Responding to feedback from MSA stakeholders, taking into account MSA vision and values and national & international benchmarks and guidelines.
- Using TQM and Quality control tools in supporting MSA quality driven educational improvement activities.

c) Quality based Decision-making in an innovative and Creative Manner by

- Developing MSA mission, policies and plans openly, in a unified common language.
- Using clear and simple structures for policy-making and verbal and non verbal communication.
- Motivating staff and students to participate actively in planning, decision-making and evaluation.
- Allocating various resources transparently, aligned with income generated, in an integrated system.
- Being effective toward achieving the needs of the society and efficient in using MSA different resources.

MSA University quality driven educational values should be represented as a package, to indicate their equal importance and interdependency. MSA values of professionalism and integrity support the core value of quality driven academic culture, which is at the heart of everything MSA done at this University.

4.2.4 MSA Strategic Goals

1. Be a first choice University for qualified and diverse students, staff and employees from different cultures and backgrounds.
2. Sustain an integrated and supportive learning community through MSA policies and organizational culture.
3. Expand MSA role in the creation of new knowledge in different fields through scholarships (Middlesex and Greenwich Universities), and research and development (R & D) activities.
4. To sustain in a balanced academic environment which encourages and draws together scientific thinking, research, learning and teaching; and involvement with the social, professional and business communities, to encourage quality based academic innovation.
5. To offer a range of new academic programs and a learning environment which add scientific value to current and potential students.
6. To provide supportive academic and learning services which empower students to succeed in their overall development, and give them the best possible experience of higher education and opportunities to improve their professional and academic lives.
7. To provide enough infrastructures and wide range of facilities, both educational and recreational, which support long-term quality based strategies.
8. To create graduates who will be equipped with the tools to continue to learn and develop throughout their careers.

MSA Quality driven Strategies define the gap analysis between MSA vision (future) and MSA mission (today) into a series of Strategic actions to get there. However, these Quality driven Strategies are introduced, later, throughout the rest of the chapter, after the external and internal scanning.

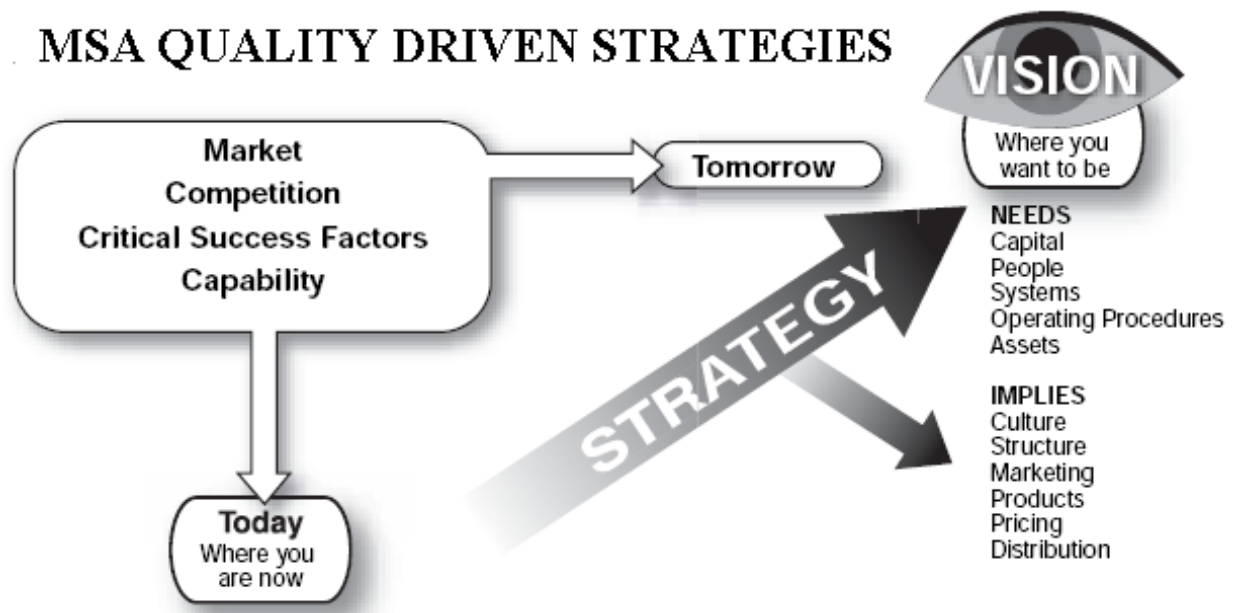


Figure (41): MSA Quality driven Strategies define the gap analysis between MSA vision and MSA mission

Source: Russell, 2005

4.3 MSA External Environmental Scanning

According to Wheelen and Hunger (2009) and David (2007), the External Factor Analysis Summary (EFAS), Internal Factor Analysis Summary (IFAS) and the Industry Success Matrix are conducted by the researcher based on the following key points:

1. Each factor should be assigned a judgmental weight –depending on the strategic opinion of the researcher- that ranges from 0.0 (not important) to 1.0 (very important). So that, the sum of all weights assigned to the factors must equal 1.0.
2. Each weight indicates the relative importance of that factor and its probable impact on the organization's strategic position.
3. Then, rating each key external or internal factor (from 1 –to– 4) to indicate how effectively the organization's current strategies can respond to each factor (where as 4 = the response is superior, 3 = the response is above average, 2 = the response is average, 1 = the response is poor). Ratings also are based on the researcher judgmental opinion about the effectiveness of the organization's strategies and its strategic response, however, it can be done through group discussions and reaching a group consensus (e.g., MSA strategy mapping workshops or focus groups moderated by the researcher).
4. Finally, the Total Weighted Score (TWS) can be obtained as a result of the multiplication of each factor's weight times each organization's rating, to reach a final analysis of how well this organization can respond to its external and internal environmental changes.

4.3.1 EXTERNAL FACTOR ANALYSIS SUMMARY (EFAS)

Table (24): External Factor Evaluation (EFE) Matrix

Key External Factors	Weight	Rate	Total Weighted Score
OPPORTUNITIES			
1. Increased focus and improved attention to higher education.	0.10	4	0.4
2. Developing local economy with several niches that different academic undergraduate and post graduate programs could be created in.	0.10	4	0.4
3. Increased opportunities for partnerships with other public and private universities.	0.10	3	0.3
4. The strategic geographical position of Egypt in the world map.	0.05	3	0.15
5. New governmental trends supporting high quality educational programs.	0.10	2	0.2
6. Technological advances in the methods and ways of learning (e.g., e-learning).	0.05	3	0.15
7. Increased local and international demand for mid-career redirection and lifelong learning.	0.05	3	0.15
THREATS			
1. There is an increase in the unemployment rate in the Egyptian Society.	0.05	2	0.1
2. Growing competition from nearby public universities (e.g., Cairo University) and other private ones (e.g., Nile University) in Egypt.	0.10	2	0.2
3. Risk of losing qualified faculty staff for genuinely better opportunities at other universities or professionally.	0.05	2	0.1
4. The emergence of new private universities in nearby Arab countries especially in Saudi Arabia and united Arab of Emirates.	0.05	2	0.1
5. New branches of well known international universities in Egypt and Arab countries.	0.1	2	0.2
6. The huge increase in the rate of change in technology and knowledge which may exceed the university's ability to cope with it.	0.1	4	0.4
TOTAL	1.00		2.85

Comment: A total weighted score of 2.85 indicates that MSA is responding, at an average rate, to the existing opportunities and threats in its field. In other words, MSA's strategies are formulated to take advantage of its existing opportunities and minimize the potential adverse effects of its external threats.

4.3.3 Scanning the External strategic Factors through using the Issues Priority matrix (IPM)

According to Wheelen and Hunger (2009), the Issues Priority Matrix (IPM) can be used to decide which external environmental factors should be merely scanned, i.e., considered as low priority strategic factors and which should be monitored as highly priority strategic factors to the assessed organization.

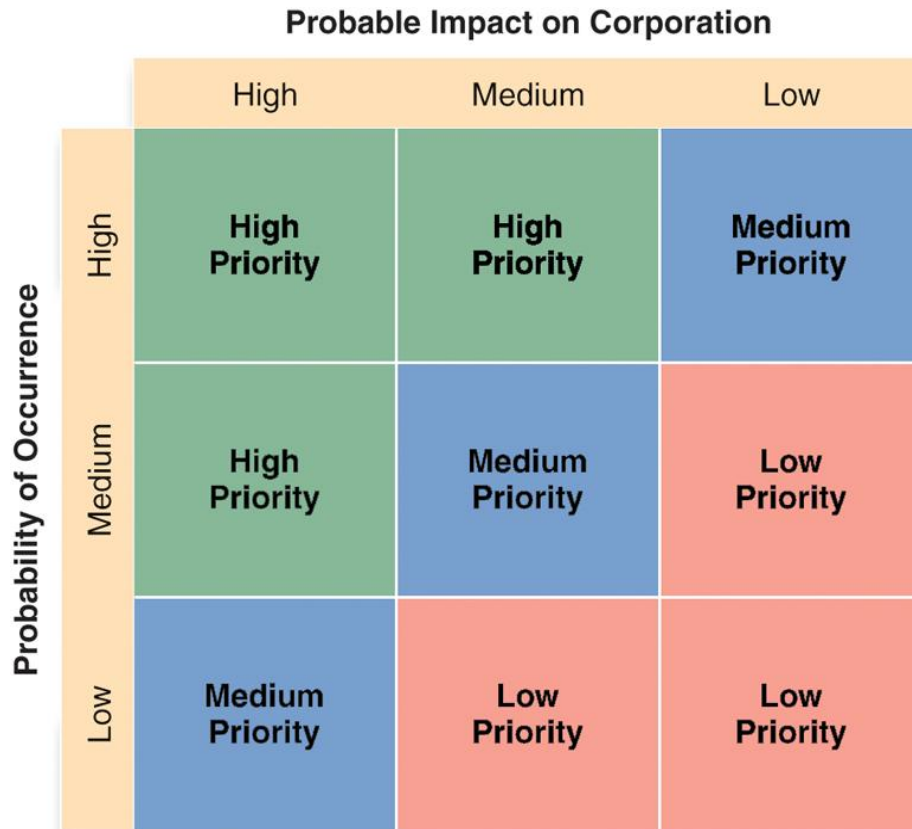


Figure (42): Issue Priority matrix (IPM)

Source: Wheelen and Hunger (2009)

A. High priority

1. High unemployment rate: The impact of this external factor on MSA University is high and the probability of occurrence is also high.

Accordingly, MSA conducts every year an employment fair, trying to link the most reputable employers with its qualified graduates. Moreover, the

Faculty of Biotechnology students designed a strategy map, describing their formulated strategy, which is creating a Recruitment Center to employ MSA Faculty of Biotechnology graduates at the most recognized local and international employers in their field.

This strategy was formulated after a strategy map workshop conducted by the researcher to the Faculty of Biotechnology students, for the purpose of MSA continuous improvement. This strategy map is introduced, later, throughout the next phases of this strategic audit.

2. Entrance of new competitors: The probability of its occurrence is medium; however, it has high impact on MSA University (e.g., Nile University).
3. Huge increase in the rate of change of the technological-featured learning methods: It has High probability of occurrence and medium impact on MSA.

However, MSA University will benefit a lot from these technological changes, if MSA formulated a strategy (e-learning strategy) that will make use of these new technological learning methods. The researcher designed an e-learning strategy map for this purpose which is introduced in the strategy formulation and communication phases.

B. Medium priority

4. Swine flu: Low probability of occurrence but high impact on MSA, as many students and staff didn't attend their classes.
5. Changes in educational policies: Probability of occurrence is medium and its impact on MSA will be medium.

C. Low priority

6. Changes in public policies: Its probability of occurrence is low (low frequency) and its impact on MSA will be medium if it's indirectly related to MSA's internal operations.

4.4 MSA Internal Environmental Scanning

4.4.1 MSA University Organizational structure

MSA University tends to be Divisional structure which is the most appropriate structure for large universities with many faculties. However, more effort is required to be done, so that MSA University's eight Faculties can operate interdependently with each other. This state of interdependence can be created through synergy, teamwork, effective horizontal and vertical communication, either internally –inside each faculty- or externally between each faculty and its different stakeholders.

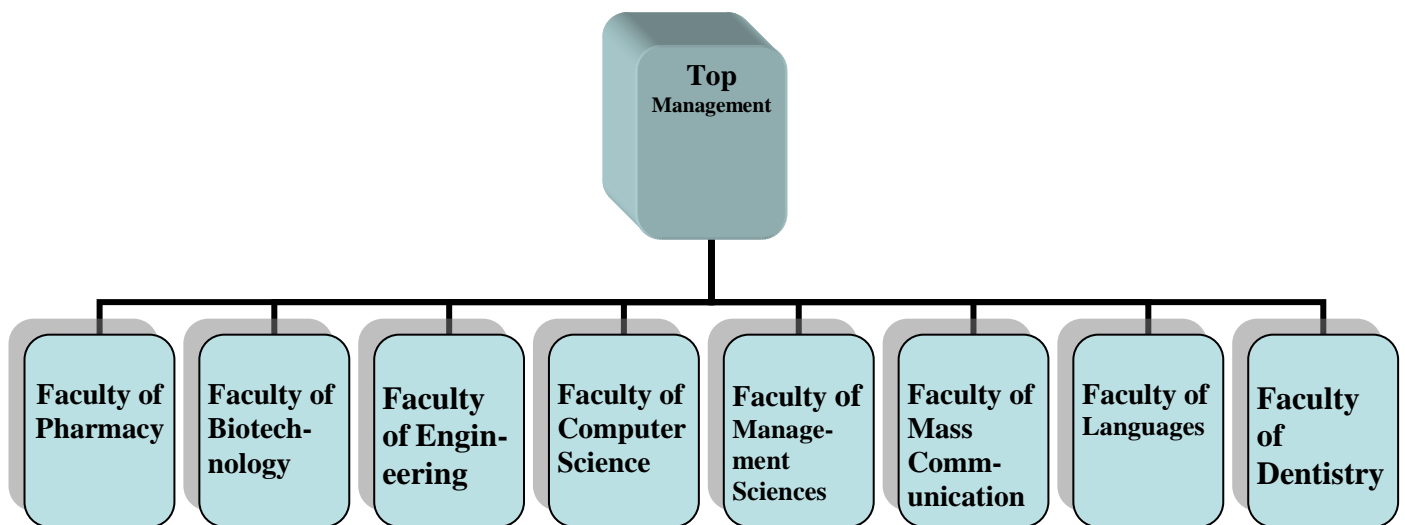


Figure (44): MSA Divisional Organizational Structure

4.4.2 MSA INTERNAL FACTOR ANALYSIS SUMMARY (IFAS)

According to David (2007), the Internal Factor Evaluation (IFE) Matrix is a strategy formulation tool that summarizes and evaluates the major strengths and weaknesses in the functional areas of different organizations and it can also provide a basis for identifying and evaluating relationships among those areas.

4.5 MSA Strategy Formulation Phase

MSA SWOT analysis clearly identifies the critical success factors that should be considered during the formulation of different strategies, which, later on, can be evaluated through the use of MSA balanced scorecards and strategy maps.

The researcher first constructed several matrices including MSA competitive profile matrix, external factors evaluation matrix, and internal factors evaluation matrix –through the external and internal MSA environmental scanning- in order to effectively construct MSA TOWS matrix.

Every MSA leader must understand the importance of offering quality featured educational service to gain a distinctive sustainable competitive advantage over the competitors. After all, gaining a sustainable advantage is the key to success and even for the sake of survival. However, many of MSA organizational strategies are not implemented effectively or efficiently as a result of not being well communicated to its staff.

"If only I knew what I know now, I would have done things differently" (Lee & Onko, 2000).

People in MSA always make this comment after they have implemented ineffectively or inefficiently many organizational strategies. Since MSA competes in times of severe competition and accelerated rate of change, making the right decision is extremely important for effective MSA strategic planning.

MSA has a unique set of strengths, weaknesses, opportunities, and threats. It is very important that MSA determines its strengths, weaknesses, opportunities, and threats, as well as its competitors.

By linking the SWOT analysis with its balanced scorecards and strategy maps, MSA can formulate, communicate, implement and evaluate different strategies that balance its strengths against its weaknesses, optimize its opportunities and decrease the negative impact of many threats within the market.

4.5.2 MSA Strategic Position and Action Evaluation (SPACE)

According to David (2007), a SPACE Matrix can be developed through depicting two main axes of this SPACE Matrix. The following four factors are the most important determinants of an organization's overall strategic position:

- a. 2 Internal dimensions: Financial Strength (**FS**), and Competitive advantage (**CA**).
- b. 2 External dimensions: Environmental Stability (**ES**) and Industry strength (**IS**).

Moreover, David (2007) pointed out that some important steps are needed by the strategic analysts for illustrating a SPACE Matrix:

1. Select a set of variables to define these dimensions financial strength (FS), competitive advantage (CA), environmental stability (ES), and industry strength (IS). However, MSA SPACE Matrix was designed by the researcher based on David (2007) set of predetermined dimensions.
2. Assign a numerical value ranging from +1 (worst) to +6 (best) to each variable that makes up FS and IS dimensions, and range of -1 (worst) to -6 (best) for CA, and ES axes (Based on the researcher strategic analysis).
3. Compute an average score for FS, CA, IS and ES, by summing the values given and dividing by number of variables.
4. Plot average scores for FS, IS, ES and CA on the appropriate axis in the SPACE Matrix.
5. Add the two scores on the X axis, and plot the resultant point on X axis.
6. Then, add two scores on Y axis and plot the resultant point on Y axis.
7. Finally, the intersection of new XY point can be plotted on the graph.
8. Draw a directional vector from origin. Thus, appropriate set of organizational strategies can be formulated.

Conclusion

Es average is $-13.0 \div 3 = -4.33$

Is average is $+ 10.0 \div 3 = 3.33$

CA Average is $-9.0 \div 3 = -3.00$

FS Average is $+ 9.0 \div 4 = 2.25$

Directional vector coordinates: X-axis : $-3.00 + (+3.33) = +0.33$

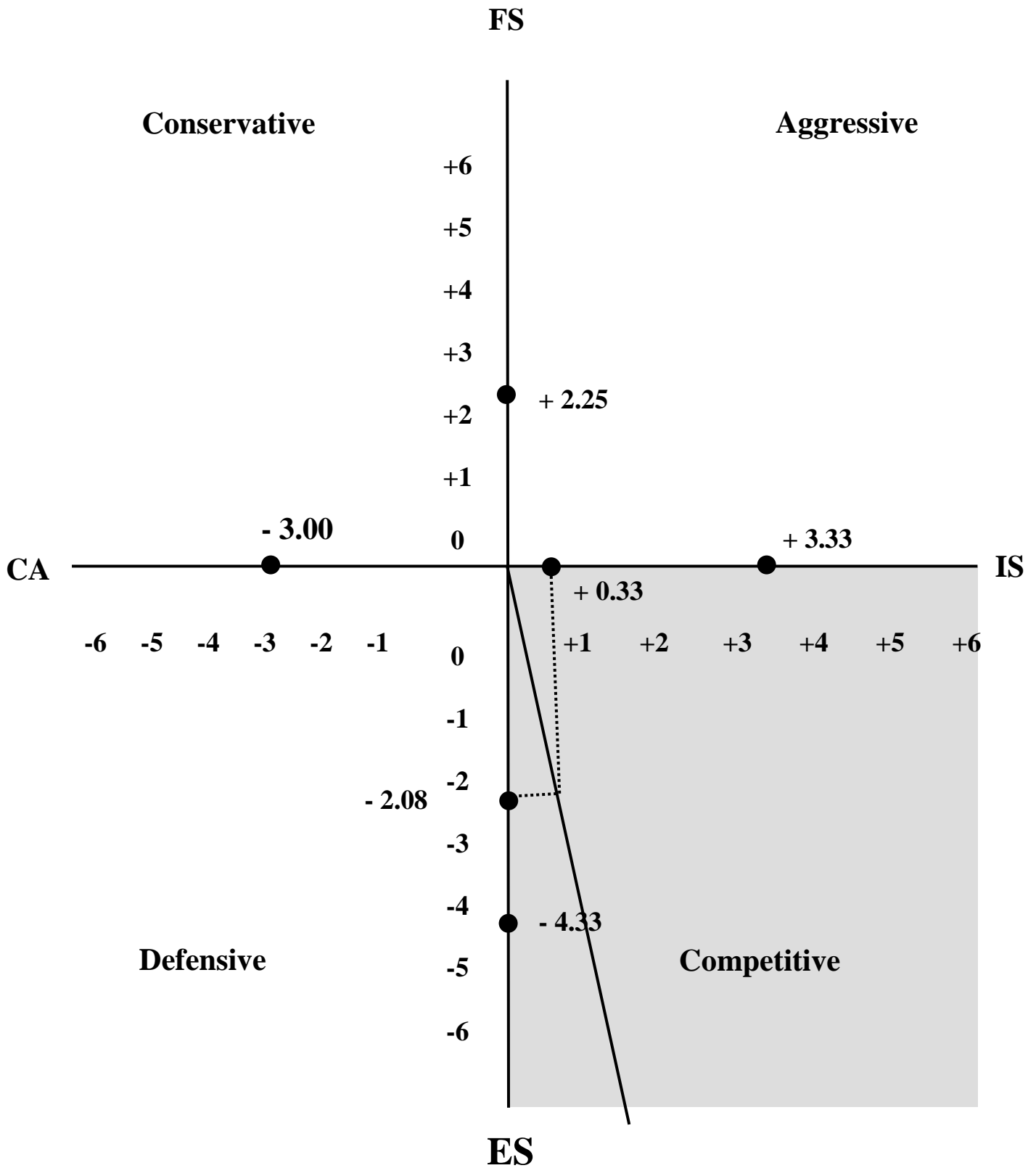
Y-axis : $-4.33 + (+2.25) = - 2.08$

Comment: As being illustrated in the following graph, MSA falls in the fourth quadrant (IV), which indicates that the university should pursue Competitive strategies.

MSA university should consider the following alternative courses of action:

- (a) Horizontal integration: creating long-term partnerships with other universities; and
- (b) New educational programs development: building new faculties serving new market segments (e.g., MSA new established faculty for applied and fine arts).

Figure (46): MSA SPACE Matrix
 (Adapted from David, 2007)



4.5.3 MSA Boston Consulting Group (BCG) Matrix

According to David (2007), a Boston Consulting Group (BCG) Matrix can be developed through depicting two main axes of this BCG Matrix representing the relative market share position and the industry sales growth rate.

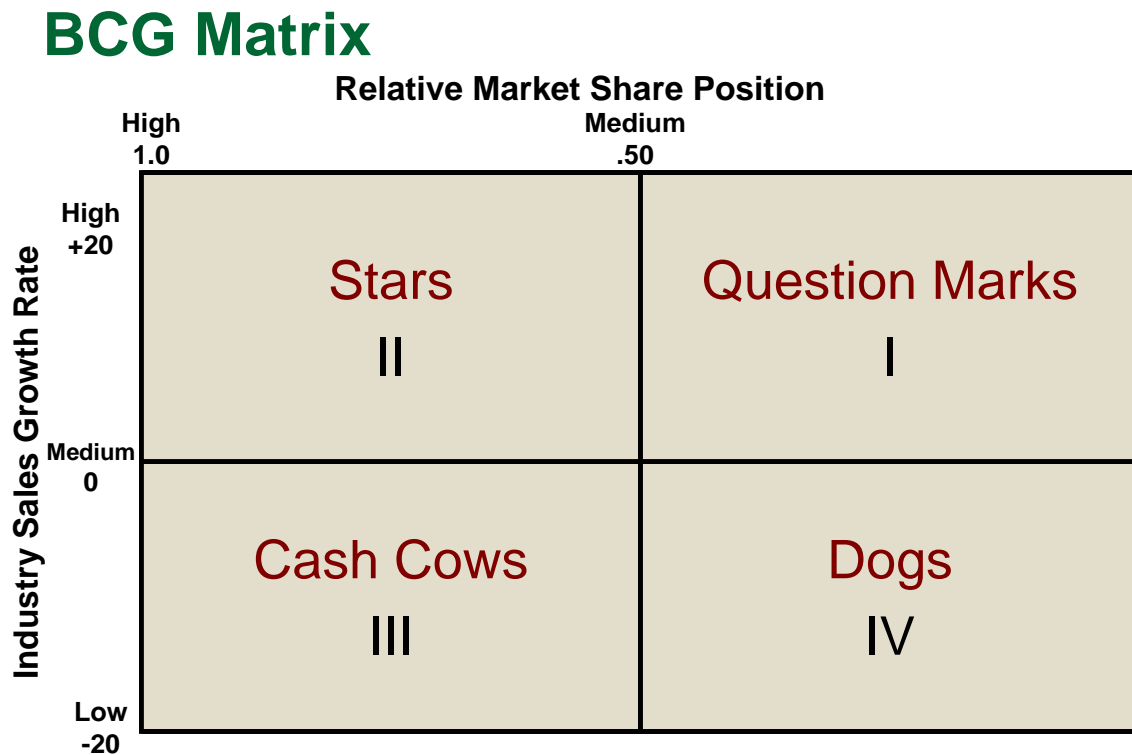


Figure (47): Boston Consulting Group (BCG) Matrix

Source: David, 2007

For example, the divisions or business units that fall in quadrant (I) have a low relative market share position, yet they compete in a high growth rate industry. Generally these units' cash needs are high and their cash generation is low.

4.5.4 Porter's Generic Competitive Strategies

According to Porter (1990; 1998), a business unit or division can concentrate on a particular buyer group. By using a differentiation focus strategy; this business unit seeks differentiation in a target market segment (cited in Wheelen and Hunger, 2009).

Accordingly, MSA Faculty of Biotechnology chooses a differentiation focus strategy, in order to develop qualified graduates (Biotechnologists) who are capable of solving different problems, for the purpose of supporting quality improvement efforts, regarding various fields.

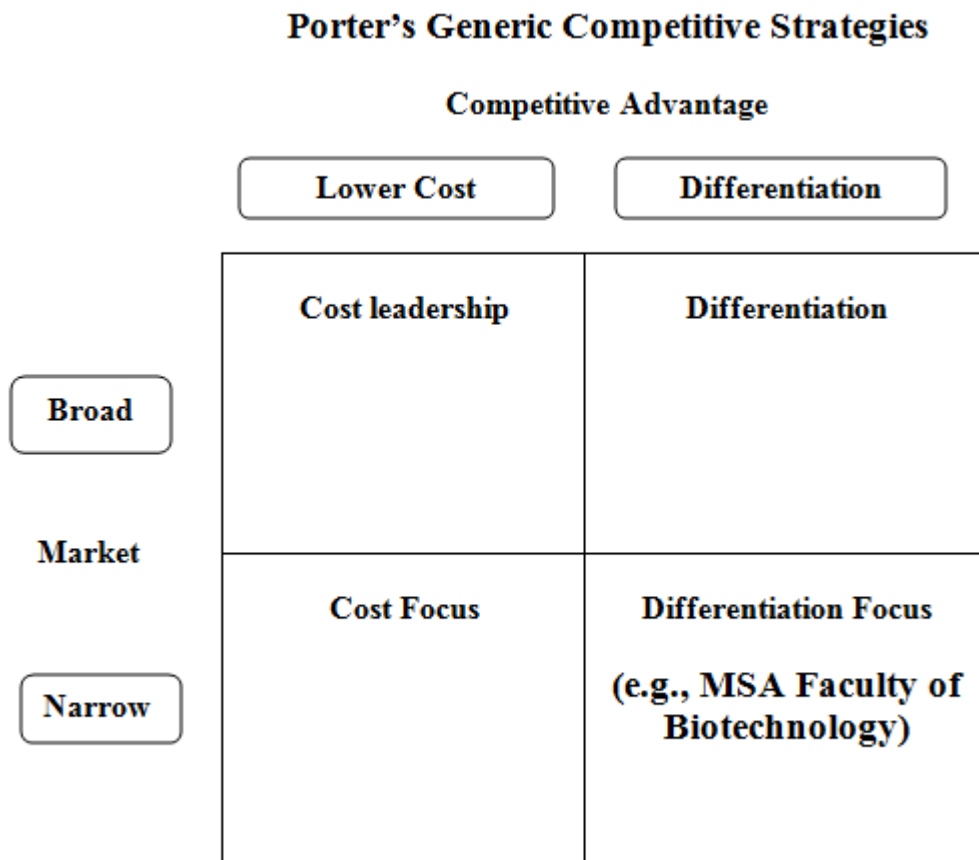


Figure (50): Porter's Generic Competitive Strategies

Source: Wheelen and Hunger (2009)

4.6 MSA Strategy Communication Phase

Before communicating Different MSA formulated strategies using MSA Balanced Scorecard strategy maps, its four main objectives are needed to be reviewed.

4.6.1 Reviewing MSA BSC Strategy Maps Objectives

One of the main aims in conducting strategy mapping workshops is communicating the developed objectives in each of the four perspectives of MSA Balanced Scorecards and its related strategy maps.

However, before discussing these strategy mapping workshops, MSA BSC Strategy Maps objectives should be reviewed and explained first.

A. Financial Perspective

Building a strategy map typically starts with a financial strategy for increasing shareholder value. MSA has two basic levers for its financial strategy: revenue growth and productivity. The revenue growth generally has two components: revenue from new quality based educational programs, and new students; and increased value to existing students by deepening relationships with them through summer training and various field trips. The productivity strategy also usually has two parts: improve the MSA's cost structure by reducing direct and indirect expenses i.e., be efficient without cutting needed costs, and use assets more efficiently by reducing the working and fixed capital needed to support a given level of business.

In general, the productivity strategy yields results sooner than the growth strategy. But one of the principal contributions of a strategy map is to highlight the opportunities for enhancing financial performance through revenue growth, not just by cost reduction and improved asset utilization. Also, balancing the two strategies helps to ensure that cost and asset reductions do not compromise a university's growth opportunities with stakeholders.

B. Customer Perspective

The core of any business strategy is the customer value proposition, which describes the unique mix of product and service attributes, customer relations, and corporate image that an organization offers. It defines how the organization will differentiate itself from competitors to attract, retain, and deepen relationships with targeted customers. The value proposition is important because it helps an organization link its internal processes to improved tangible and intangible outcomes with its stakeholders.

Typically, the value proposition is chosen from among three differentiators: operational excellence, customer intimacy, and product leadership. Organizations strive to excel in one of the three areas while maintaining minimum but enough standards in the other two.

By identifying its customer value proposition, MSA will then know which classes and types of students to target. MSA Balanced Scorecard Strategy Map highlights the different objectives for the three generic strategy concepts of operational excellence, customer intimacy, and product leadership. For MSA in order to pursue a strategy of operational effectiveness needs to improve at competitive pricing, and to enhance its quality based educational services.

For customer intimacy, MSA must stress the quality of its partnerships with its students, including summer training in well known organizations and workshops covering different areas (e.g., Effective Presentation Skills, Research Writing, Intended Learning Outcomes "ILOs", Practicing Leadership, Self Management "Time Management", Communication Skills, Self Learning "Learning Vs Studying", Mind Mapping, Memory Enhancement, The 7 Habits Of Highly Effective People, Marketing Research (e.g., SYNOVATE), and other workshops covering also different cultural and social aspects).

MSA provides its students with a wide range of extracurricular activities in order to bring out their potentials (e.g., hosting the Harvard World Model United Nations, International day, Project Day, Annual Show and International Trips). For MSA in order to pursue a service leadership strategy, it must concentrate on the functionality, features, and overall performance of its academic programs (new

academic programs have been provided in different Bachelor majors with quality based features).

C. Internal Process Perspective

Once MSA has a clear picture of its customer and financial perspectives, it can then determine the means by which it will achieve the differentiated value proposition for its stakeholders and the productivity improvements to reach its financial objectives. The internal process perspective captures these critical organizational activities, which fall into four high-level processes: enhance its strategic position through innovating new educational services and by entering new customer segments; increase customer value by deepening relationships with existing students and alumni; achieve operational effectiveness by improving its supply chain management, the cost, quality, and cycle time of internal processes, asset utilization, and capacity management; and become a good corporate citizen by establishing effective relationships with external stakeholders.

Strategy maps can help MSA detect major gaps found while communicating strategies before being implemented at lower levels in the university.

The financial benefits from improved business processes typically reveal generated in stages. Cost savings from increased operational efficiencies and process improvements create short-term benefits. Revenue growth from enhanced customer relationships is generated in the intermediate term. And increased innovation can produce long-term revenue and margin improvements.

Thus, a comprehensive strategy map should involve generating returns from all three of these internal processes.

D. Learning and Growth Perspective

The foundation of any strategy map is the learning and growth perspective, which defines the core competencies and skills, the technologies, and the corporate culture needed to support each organization's strategy.

These objectives enable MSA to align its human resources and information technology with its strategy. Specifically, MSA must determine how it will exceed its stakeholders' requirements from critical internal processes, the differentiated value proposition, and customer relationships.

MSA identified that its employees needed to gain a broader understanding of MSA different strategies. Additionally, MSA knew it had to improve the leadership skills that were necessary for MSA leaders to communicate MSA's vision and develop MSA staff.

Thus, strategy maps are needed to communicate MSA different formulated strategies and then improve them.

Upon completing its learning and growth perspective, MSA now had integrated strategy maps linked across the four major BSC perspectives, from which MSA's different faculties could develop their own detailed maps for their respective operations. This process helped MSA detect and fill major gaps in the strategies being implemented at lower levels of the university.

MSA Strategy maps, however, must describe how MSA will achieve its desired outcome of delighting employees, students, and other stakeholders. The "how" must include the value proposition in the customer perspective; the innovation, customer management, and operating processes in the internal process perspective; and the employee skills and information technology capabilities in the learning and growth perspective. These elements are as fundamental to MSA different strategies as the projected outcome of each strategy and improve each formulated strategy after being evaluated.

The greatest benefit of MSA strategy maps is their ability to communicate strategy to everyone in the university.

4.6.2 MSA Formulated e-learning strategy and its related Strategy Map

The following MSA Strategy maps illustrate how each one of them can be integrated in a comprehensive strategic audit, to be used as a strategic communication channel as well as a strategy improvement tool.

Growth and productivity are the two primary strategic themes for MSA. For each theme, there are specific measures identified in each BSC perspective: Financial, Customer, Internal processes, and Learning and growth. The financial perspective of MSA strategy maps shows how the high-level objectives (ROI and earnings) are based upon simultaneously managing growth and productivity.

MSA strategic themes are linked to key internal processes. To support its customer intimacy strategy, MSA has made significant investments in staff training programs (i.e. workshops covering different areas) to ensure that this strategy is properly implemented. The innovation process focuses on the development of new competency based training (CBT) programs. And the operations process is linked to a focus on Total Quality Management Program that is aligned with MSA quality based strategies.

The learning and growth strategy is aligned with the requirements for strategic business processes and differentiation (new academic programs). The learning and growth strategy calls for retention of experienced staff members who can sustain students' partnerships and deliver quality based educational services. It also requires significant CBT for MSA teaching and administrative staff, complemented by ongoing evaluation and performance management programs. The employee delight measure on MSA Balanced scorecard shows that MSA recognizes that the employee is a true partner in the overall quality based strategy.

4.6.2.1 MSA e-learning Strategy as a tool for learning and growth

Introducing new academic under and post graduate programs (PhD, masters, diplomas and others) as well as professional certificates delivered through new technological methods (e- learning) for current and potential customers (students, teaching staff and other external customers).



4.6.2.2 MSA e-learning platform

As a Tool For Learning and Growth



Middlesex and Greenwich Universities¹ will be kindly asked to setup e-learning platforms that enable their instructors to create their own course curriculum, set the quizzes for such materials and to build virtual classrooms, with MSA Students and teaching staff who wish to continue their post graduate studies (PhD, masters, diplomas and others).

This new e-learning system enables the MSA Student(s) and staff to interact with the classroom as to post questions and get the instructors' response. The instructor will be able to evaluate the students as in a real class, set assignments and receive the students' response, share the comments and guidance to the student in both public and private way. This system emphasizes on the instructor ability to develop and manage the system with the minimal IT skills and the minimal IT professional interaction, in order to maximize the benefits from it.

The e-learning platform provides MSA Students and staff with the following key-features:

- MSA Students and staff can have access to virtual classrooms, and can be registered on line to them.

¹ These 2 universities provided the validation to MSA. Accordingly MSA University graduates receive dual degrees, a British Bachelor Degree and an Egyptian one; the Egyptian Bachelor Degree is accredited by the Egyptian Supreme Council of Universities

- MSA Students and staff can submit their assignments on line and receive the evaluation for them.
- MSA Students and staff can solve tests, quizzes with multiple-choices and fill-in words, and other forms of exams on line.
- MSA Students and staff can benefit from this new system's collaboration tools that support the interactions between the students and instructors as well as students with each others.

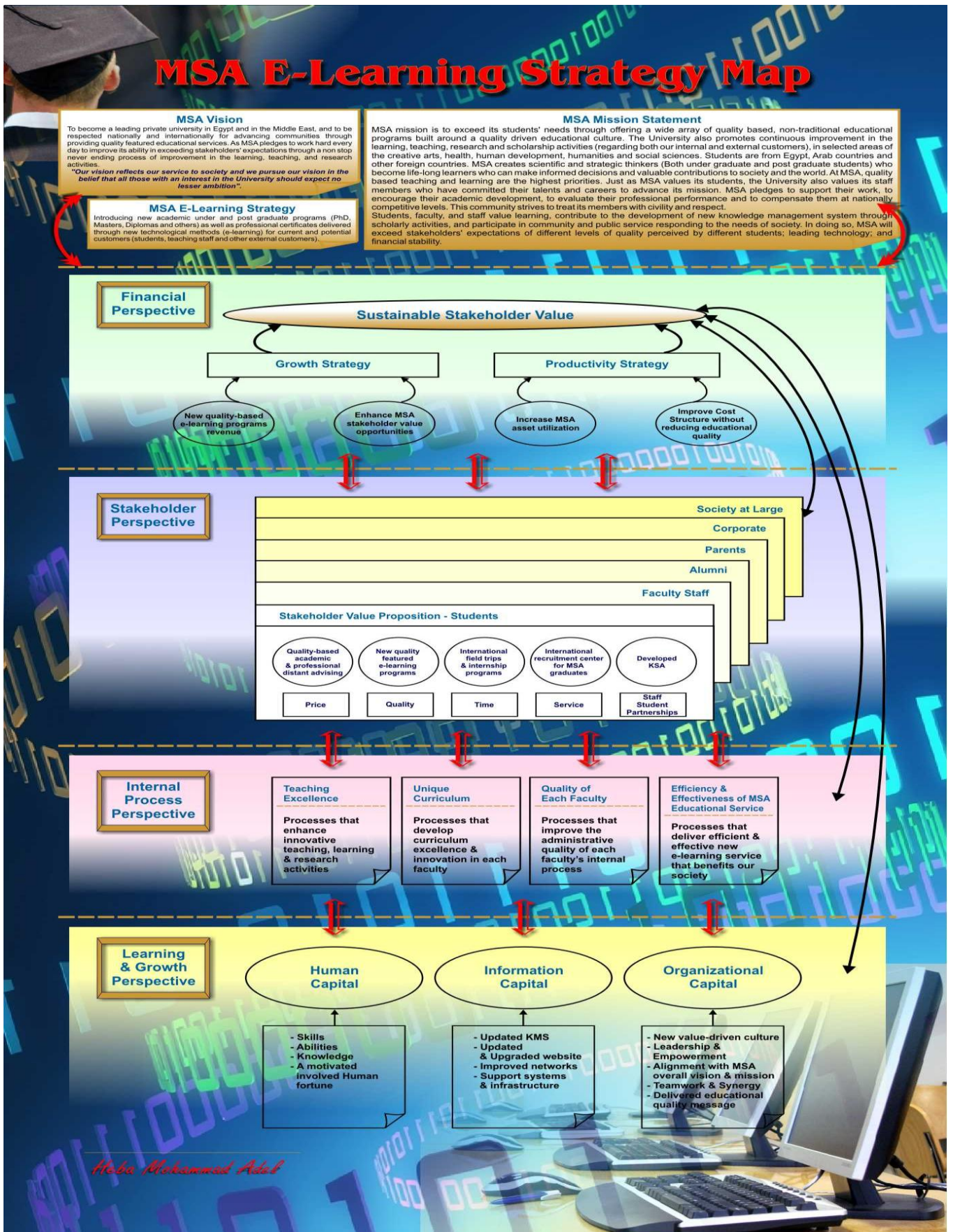
Middlesex and Greenwich e-learning and its contribution to MSA Learning and Growth strategy map perspective

- A new quality educational message will be communicated and delivered through this new e-learning system.
- Long-term Instructors Students partnerships with MSA Students and staff will be created through using this new value-driven system.
- MSA Students and staff can access secure, safe materials in a personalized environment. They can contact instructors and peers to support their learning.
- MSA Students and staff can also benefit from having access to resources outside MSA.
- MSA Students and staff can have their digital enabled materials easily prepared and can be easily accessed, updated and shared using the electronic based curriculum builder.
- MSA Students and staff can be flexibly assessed through their instructors' use of graded assignments, quizzes, and discussion forums.

4.6.2.3 MSA e-learning Strategy Map

MSA e-learning Strategy Map was designed and communicated by the researcher to MSA Faculties of Management sciences and Biotechnology (Students, Teaching and administrative staff) for the purpose of the research.

Figure (51): MSA e-learning Strategy Map



4.6.3 Conducting effective MSA Strategy Maps Workshops

Each MSA Balanced Scorecard Strategy Map that tells the story of each MSA strategy requires: Scientific thinking, Thoughtful reflection, careful analysis, innovation and creativity, which are the ingredients leading to various successful MSA Strategy Maps.

The researcher conducted various strategy mapping workshops for MSA teaching and administrative staff as well as MSA students, for the purpose of giving a common understanding of the importance of strategy mapping to MSA, explaining the integrated closed-loop model of this research and discussing a conducted strategic audit for analyzing MSA strategic position in the Egyptian educational sector. Then, evaluating the changes that took place in the level of MSA strategy understanding and interpretation of its staff, before the strategy maps' workshops were conducted, and their improved performance after these sessions.

➤ **The following six steps were carried out by the researcher while building each MSA Strategy Map**

1. Reviewed each MSA strategy for clear understanding and improvement.
2. Identified differences in individual leaders' interpretation of each MSA strategy and ideas about the causal links among different strategic components.
3. Reviewed existing data or information required to resolving these differences in each MSA strategy interpretation.
4. Worked with MSA leaders to resolve differences in perspectives and build a prototype Strategy Map.
5. Validated each MSA Strategy Map with key stakeholders and agree on ways to evaluate its successful implementation (through various focus groups and workshops).
6. Established ways for using each MSA Strategy Map to guide each strategy implementation and evaluation.

4.6.4 MSA Strategy Map Workshop Checklist

The following set of questions can be used to self-assess, evaluate and improve each developed MSA strategy map after each workshop:

1. Conducting Effective MSA Strategy Map Workshop

- Was MSA strategy map created at a language inspiring reflection, creativity, and insight?
- During the session at which MSA strategy map was created, did it adhere to an effective agenda, ensuring efficient use of time?
- Did the session set the stage for a productive time of sharing experience and understanding by engaging in an opening exercise affirming MSA Balanced Scorecard?
- During the session, did the presenter ensure that participants remained active and present by respecting their participation?
- After the session, did you find the distributed materials about MSA e-learning strategy beneficial and value adding?

2. Reviewing MSA Strategy Map Perspectives

Financial Perspective

- Does MSA Financial perspective include objectives relating to both revenue growth and productivity?
- When developing growth strategy, did MSA strategy map consider the new quality based educational programs while deepening long-term instructor-student partnerships?
- When developing productivity strategy, did MSA strategy map discuss both cost reduction and asset utilization (tangible and intangible) as possible objectives?

Stakeholder Perspective

- Did the session define MSA target student segment(s)?
- Do the objectives appearing in MSA stakeholder perspective reflect a core quality driven value proposition?
- When the session crafted MSA stakeholder objectives, did MSA strategy map focus on what students expect or demand from MSA?

Internal Processes Perspective

- Do the objectives constituting MSA Internal Processes perspective answer the question of how MSA will achieve customer delight and financial outcomes?
- When developing these objectives, did MSA strategy map consider the four key clusters of processes:
 - Operations management
 - Customer management
 - Innovation and continuous improvement
 - Social responsibility

Employee Learning and Growth Perspective

- Does MSA strategy map address human capital role within the university, by including objectives relating to human capital readiness, employee involvement, training, or recruitment and retention?
- When considering information capital, did MSA strategy map include both infrastructure (mainframes, etc.) and support systems (software and information-sharing techniques)?
- Has MSA strategy map considered organizational capital elements such as culture, leadership, and alignment in this perspective?
- Do the objectives appearing in the Employee Learning and Growth perspective align with one another, reflecting MSA e-learning strategy?

3. The Number of Objectives on MSA Strategy Map

- Do MSA has an appropriate number of objectives on MSA strategy map considering the following:
 1. MSA teaching staff capabilities
 2. New value-driven Cultural reorientation
 3. Ability to implement
 4. Desired number of key performance measures

4. Ensuring Understanding with Vision and Mission Statements

- Did MSA strategy map was created aligned with its overall vision and mission statements?
- Did the session ensure participants' understanding of MSA vision and mission statements?

5. Telling MSA Strategic Story through Cause and Effect Relationships

- Has MSA strategy map linked objectives together in a pattern of cause-and-effect relationships that tells MSA e-learning strategic story?
- Has MSA strategy map focused on demonstrating the linkages between MSA four BSC perspectives?

6. Personalizing MSA Strategy Map

- Does the structure of MSA strategy map (location of each of the four perspectives) reflect MSA new culture and beliefs?
- Did the presenter use simple and understandable language and terminology throughout the strategy map session?

The following Questions are asked to MSA participants before and after MSA STRATEGY MAP Workshop

Table (29): MSA Strategy Map Workshop Evaluation Matrix

Variable	Yes	No
I have a basic awareness of the mechanics of strategic mapping.		
Pre		
Post		
I know what the key components of strategic mapping are.		
Pre		
Post		
I think I could facilitate a strategic mapping process.		
Pre		
Post		
I have the skills necessary to facilitate a strategic mapping process.		
Pre		
Post		
Strategic mapping can act as a bridge for communication and common language to MSA strategic efforts.		
Pre		
Post		
Strategic mapping can act as an effective performance management tool to MSA teaching staff performance.		
Pre		
Post		
I would like to try facilitating a strategic mapping process in the future.		
Pre		
Post		

4.7 MSA Strategy Implementation Phase

4.7.1 MSA organizational life cycle

According to Wheelen and Hunger (2009), MSA is between the second (Growth) and the third stage (Maturity). However, more effort is required to be done to improve its competitive strategic position during its growth stage, through developing and implementing new strategies, for both its horizontal and vertical growth (e.g., e-learning strategy with Middle Sex University; Sustainable interdependent cross-cultural exchange with American universities; and collaborative agreements with British professional institutions through its Career Gate centre)

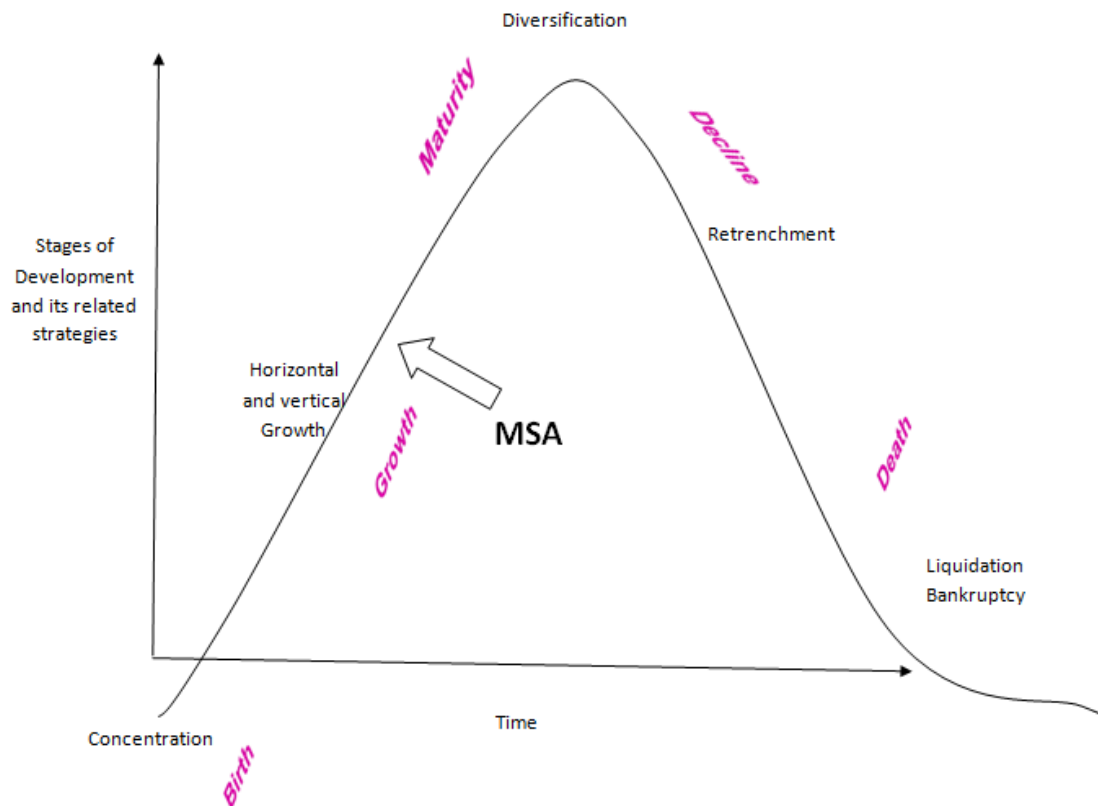


Figure (52): MSA organizational life cycle: Growth Stage; Horizontal and vertical growth

4.7.2 Implementing the Sustainable Interdependent Cross-Cultural Partnership (SICP) Strategy

4.7.2.1 Sustainable Interdependent Cross-Cultural Partnership Model

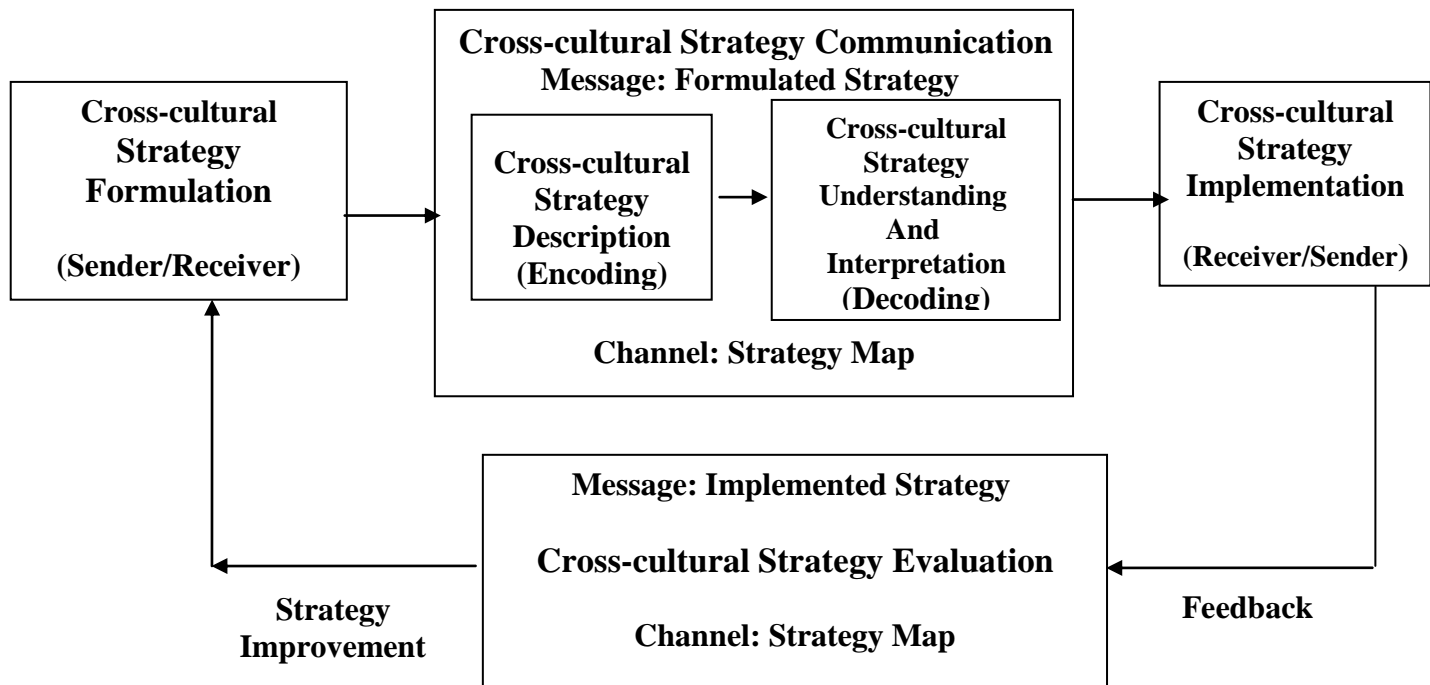


Figure (53): The Sustainable Interdependent Cross-Cultural Partnership Model (SICP)

The Sustainable Interdependent Cross-Cultural Partnership Model (SICP) is created by the researcher after the American Ambassador's visit to MSA University.

It is a closed-loop that explores ways to unite all nationalities, bridging different Cultures and communicate diverse minds with various interpretations and perceptions. The SICP will be linking not only our strategic management process with our communication model but it will act as a closed bridge linking our hearts (different values) with our minds (different perceptions and beliefs). Therefore, controlling our attitudes & behaviors and improving the Arab-Western relations.

Then the researcher will share the results of this model after being applied not only to her colleagues and students but also all over the world through either academic lectures or professional workshops in Egypt and in other different countries.

4.7.2.2 SICP Vision

To become a leading interdependent partnership promoting International cross-cultural exchange, communication, and understanding between Arab-Western communities, through empowering young people to break down cultural barriers, uniting diverse cultures, seeking first to understand then to be understood in order to share progress, creativity and innovation.

4.7.2.3 SICP Mission Statement

SICP mission is to exceed its participants' needs through offering a wide array of quality based, non-traditional programs for Education, Science & Technology, and Social & Economic Development built around a quality driven multi-culture environment. The SICP also promotes continuous improvement in the e-learning, communication, research and scholarship activities. Participants are from Arab and Western countries. SICP creates international scientific and strategic thinkers who become life-long learners and leaders making valuable decisions and contributions to their societies and the whole world.

At SICP, quality based creativity and innovation are the highest priorities. Just as SICP values its participants, it also values its staff members who have committed their talents and careers to advance its mission.

This partnership strives to treat its participants and members with civility and mutual respect which can't be achieved without interdependent communication based on cross-cultural active listening. SICP Participants, staff members and each one working in this partnership value learning and contribute to the development of a new knowledge management system and on-line networks for an effective and efficient implementation to the e-learning. In doing so, the SICP will carry the light of a sustained effort of interdependent cross-cultural exchange.

4.7.2.4 SICP e-Learning Strategy

Introducing new academic under and post graduate programs (PhD, Masters, Diplomas and others) as well as different professional certificates provided by American Educational Institutions through using new technological methods (e-learning) for Arab and other Islamic Countries (for example Egypt; e.g., MSA University).

4.7.2.5 SICP e-learning Strategy as a Tool for Learning, growth and Beneficial Cultural Exchange between Arab and Western Societies (e.g., Egypt and USA)

American Educational Institutions will be kindly asked to create e-learning platforms that enable their instructors to design their own course curriculum, set the quizzes for such materials and to build virtual classrooms, with Egyptian Students and teaching staff who wish to continue their post graduate studies (PhD, masters, diplomas and others) on-line with these American institutions.

This new e-learning system enables the Egyptian Student(s) and staff to interact with the classroom as to post questions and get the American instructors' response. The instructor will be able to evaluate the students as in a real class, set assignments and receive the students' response, share the comments and guidance to the student in both public and private way. The SICP will be able to promote better education, strategic leadership, sustained development and cross-cultural communication, awareness and understanding. The SICP will play a central role in widening and improving the understanding of different cultures.

The e-learning platform provides Egyptian Students and teaching staff with the following key-features:

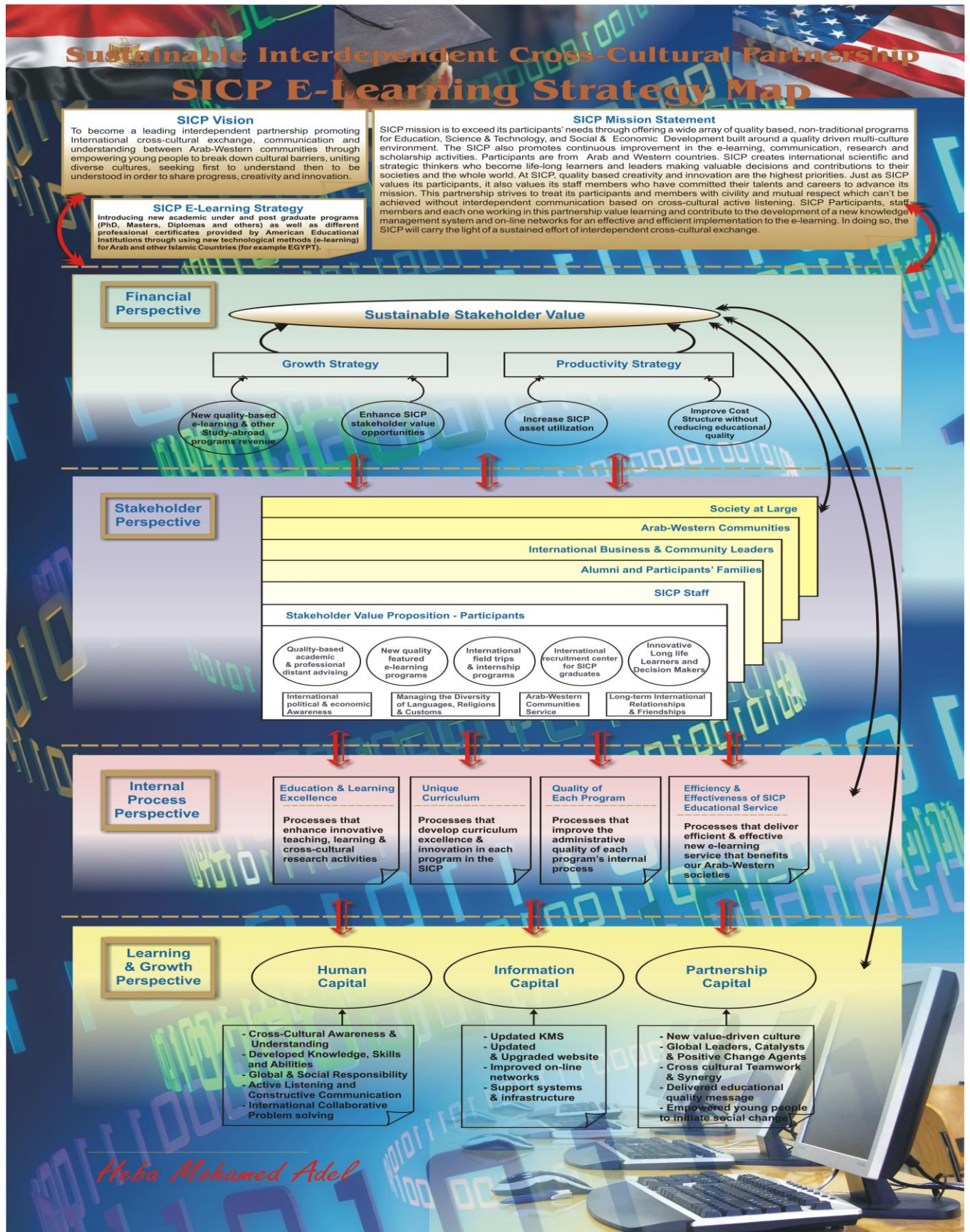
- Egyptian Students and teaching staff can have access to virtual classrooms through on-line registration.
- Egyptian Students and staff can submit their assignments on line and receive the evaluation for them.

- Egyptian Students and staff can answer tests, quizzes with multiple-choices and fill-in words, and other forms of exams on line.
- Egyptian Students and staff can benefit from this new value driven system's collaboration tools that support the interactions and beneficial cross-cultural exchange between students and instructors from different cultures.

The American-Egyptian e-learning strategy and its contribution to the SICP between different countries:

- A new quality educational message will be communicated and delivered through this new e-learning cross-cultural system.
- Long-term cross-cultural partnerships and friendship will be created with Egyptian Students and staff through using this new value-driven system.
- Culturally aware participants will be developed realizing the challenges our leaders and societies face in the 21st century.
- Egyptian Students and staff can also benefit from having access to resources and to be exposed to different cultures outside their own culture in Egypt.
- Egyptian Students and staff can have their digital enabled materials easily prepared and can be easily accessed, updated and shared using the electronic based curriculum builder.
- Egyptian Students and staff can be flexibly assessed through their instructors' use of graded assignments, quizzes, and discussion forums.

Figure (54): SICP e-learning Strategy Map



4.7.3 Managing MSA Corporate Culture

If MSA management is committed to implementing SICP Strategy, it has to find a joint venture university to carry out and implement this SICP Strategy and then improve this formulated strategy, as the strategy improvement is what this research has discussed and proven (through both the qualitative and quantitative analyses) to be very crucial to today's ever changing environment.

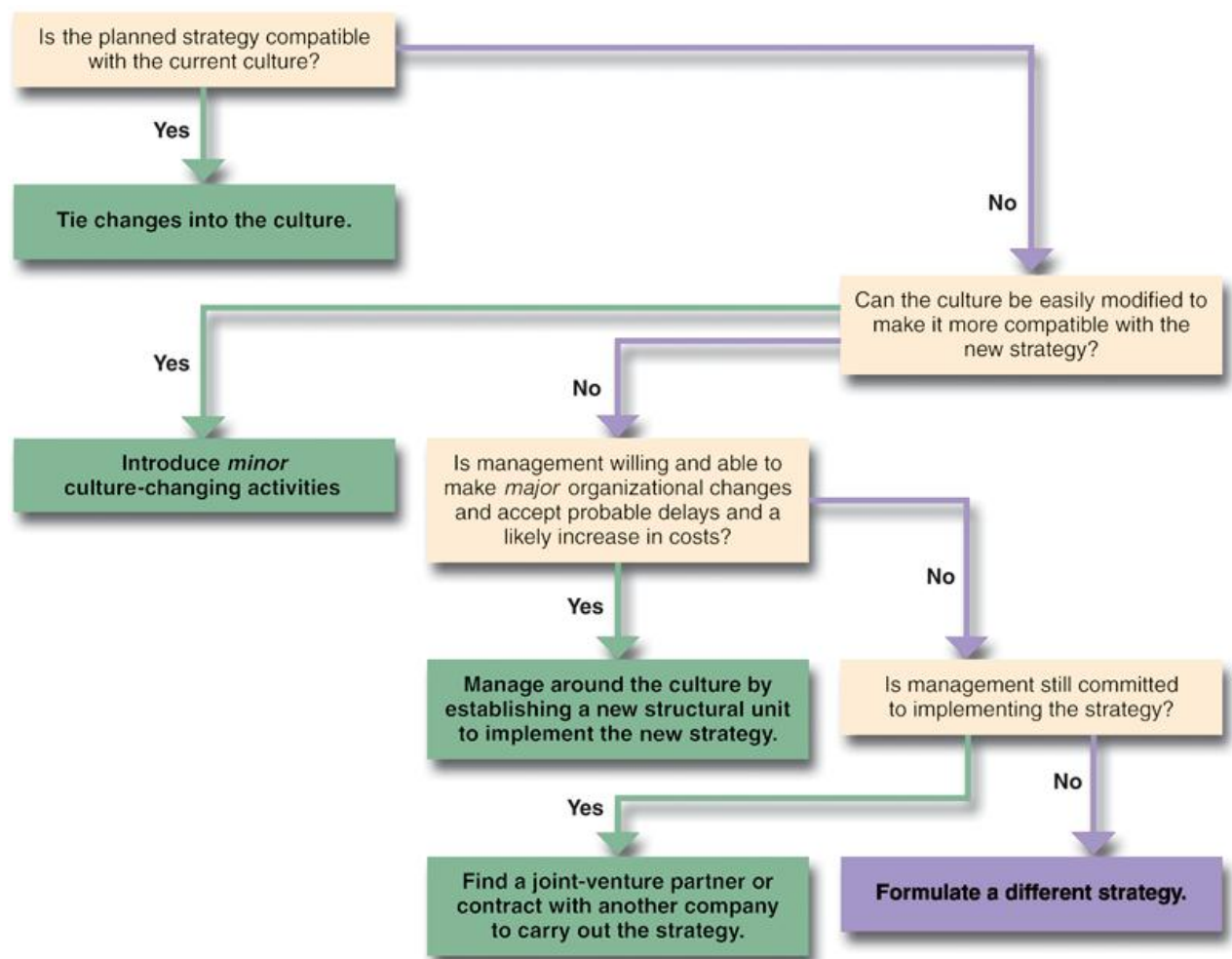


Figure (55): Assessing SICP Strategy-Culture Compatibility

Source: Wheelen and Hunger, 2009

4.7.4 Implementing MSA e-learning Strategy as well as SICP Strategy through Moodle

According to Brandl (2005), Riordan and Marcais, Moodle is a Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). Moodle provides a range of functions designed to support the delivery of online or blended learning. It is a world-wide, ongoing development project designed to support a social framework of education. Moodle creates an environment that allows for collaborative interaction among students as a standalone or in addition to virtual classroom instruction.

Therefore, MSA University decided to adopt the Open Source software Moodle, as its Learning Management System (LMS). The decision to choose Moodle was mainly based on its student-centered nature of online learning environment.

Moodle promotes a social framework (collaboration, and other cultural activities). It is suitable for MSA University's online classes as well as face-to-face learning. Technical wise, Moodle is simple, lightweight, efficient, low-tech browser interface and compatible to MSA University operating system and database.

MSA University Moodle site first shows a Course listing which shows descriptions for every course on the server. Courses are categorized and can be searched easily. The site can support thousands of courses. It also includes a login block.

Moodle is an instructor's dream in terms of course management features that it offers. Typically, each MSA University teaching staff member has full control over all settings for each course. Teacher can choose each course format settings such as by week or by topic.

Instructors and tutors are provided flexible array of course activities: Forums, Quizzes, Glossaries, Resources, Surveys, Assignments, Chats, and Workshops.

Figure (56): MSA e-Learning Management System (LMS), through Moodle-Part I

MSA University moodle You are logged in as Teacher Teacher (Logout)

NOCR106.01 - Training test

People
 Participants
 Groups
 Edit profile

Activities
 Chats
 Choices
 Forums
 Glossaries
 Hot Potatoes
 Quizzes
 Journals
 Lessons
 Questionnaires
 Quizzes
 Resources
 Surveys
 Wikis
 echo-Assignments

Administration
 Turn editing on
 Settings...
 Teachers...

Topic outline

Hi and welcome!

Course introduction and overview.

- Welcome note - news forum
- Syllabus
- glossary

3 Family

Cultural Explorations: An Internet-based reading lesson

- Der Blaue Reiter Tasks 1-2
- Blaue Reiter English Text (Quiz)
- Response to Alexy von Jawlensky

Communicative practice

- Chat room
- Oral assignment: self-introductions (recorded jigsaw)

Calendar
 March 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

MSA University moodle

Welcome to Moodle!

Course categories

- Marketing & Int'l Business
- Management & Systems
- Economics
- Accounting

Search courses...
All courses...

Available Courses

CS 100	Introduction to Information Technology	
ECO 101	Introduction to Macroeconomics	
ENG 101	English Language for Academic Purposes	0
FAC 101	Essentials of Accounting I	
MTH 112	Basic Mathematics for Social Sciences	
BUS 102	Business and Society	0
ECO 102	Introduction to Microeconomics	0
ECO 113	Mathematics for Economists I	0
ENG 102	English Language for Study Skills	0
SYS 101	Programming Concepts & Applications	0
ECONOMICS		
ECO 215	Statistics for Economics I	
ENG 201	English Language for Research Purposes	
FAC 201	Essentials of Accounting II	0
MGT 200	Introductory Management	0
SCI 101	Scientific Thinking	0
BUS 201	Business Law I	0
FAC 210	Financial Management I	0
MGT 300	Human Resources Management	0
MKT 201	Principles of Marketing	0
SYS 210	Database Management Systems	0

Login

Username:
 Password:

[Create new account](#)

Upcoming Events

There are no upcoming events

[Go to calendar...](#)
[New Event...](#)

Recent activity

Activity since Tuesday, May 9 2006, 09:18 AM
 Full report of recent activity...

Nothing new since your last login

Figure (57): MSA e-Learning Management System (LMS), through Moodle-Part II

The screenshot shows the Moodle LMS interface for a course titled "Web Design". The top navigation bar includes the MSA University logo, the Moodle logo, and a user login status: "You are logged in as Student Student (Logout)".

Key interface elements and callouts include:

- Weekly outline:** A callout box pointing to the course title "Web Design" with the text: "The course can be arranged in weekly, topic or social view".
- Profile/Logout:** A callout box pointing to the user name "Student Student" with the text: "To access the profile, login or logout".
- People:** A callout box pointing to the "Participants" link with the text: "List of all students in course".
- Activities:** A callout box pointing to the "Activities" menu with the text: "Quick view of all chosen activities".
- Search Forums:** A callout box pointing to the search bar with the text: "Student's settings".
- Administration:** A callout box pointing to the "Administration" menu with the text: "Student's settings".
- My Courses:** A callout box pointing to the "My Courses" menu with the text: "All student's courses".
- Quote of the Day:** A callout box pointing to the quote "Tell me, I forget. Show me, I remember. Involve me, I understand." with the text: "Quote of the Day".
- Handouts/Assignments:** A callout box pointing to the course content list with the text: "Here where handouts, forums, assignments, etc. are listed".

The course content list includes:

- 26 May - 1 June
- Understanding
- Web Site Contents
- How to Determine Web Page Size
- How Browsers Handle Fonts and Font Substitution
- Web Design Vocab List
- Assignment 1.1: Introduce Yourself
- Assignment 1.2: Collect and/or Create Web Content

4.8 MSA Strategy Evaluation Phase

4.8.1 MSA UNIVERSITY BSC

"A strategy map without performance measures is a bit like a sailboat without wind, a pleasant diversion but far from being used to its maximum advantage" (Niven, 2005).

MSA strategy maps communicate MSA objectives, what MSA must do well, in order to implement each strategy. But, in order for MSA to know if it is in fact performing well on its objectives. Performance measures are used to track and evaluate MSA progress on each of the objectives appearing on its strategy maps.

According to Niven (2005), just as a fresh wind breathes life into a sail; measures bring the strategy map alive by providing a means to evaluate its success in implementing each strategy. Measures form the core of the MSA Balanced Scorecard system, driving desired action, providing all employees with guidance on how they may contribute and add value to the overall organizational success, and supplying management with a tool to determine overall progress on their strategic agenda.

MSA Balanced Scorecard provides multidimensional perspective of MSA overall performance. MSA balanced scorecard contains measures reflecting four perspectives of MSA performance: financial, customer, internal operations, and innovation and learning. The financial section contains lagging indicators of MSA's past performance, whereas the other three sections provide learning indicators about current future performance. For each dimension, MSA balanced scorecard shows MSA's goals and specific financial and non financial measures that reflect its performance in attaining those goals.

Together the four dimensions of the balanced scorecard provide a much more comprehensive overview of MSA performance than that provided by financial measures alone. Accordingly, properly designed balanced scorecard measures the important key aspects of MSA's different strategies and reflects important causal links across these four dimensions. The following matrices and figures show MSA

University Balanced Scorecards (including what were previously developed in MSA in 2008; and what is newly conducted by this research in 2010).

MSA's top management, like many organizations, agreed on two key financial goals: increased revenue streams through providing new quality driven academic programs (both the main and elective courses), and maintaining adequate cash flow to meet obligations. As shown in the matrices and figures, specific measures and targets were developed to track the attainment of those goals. Both the choice of key matrices and figures and the setting of target values are important management decisions.

For MSA, students delight is the key to sustain its competitive advantage. Accordingly, the customer perspective of MSA's balanced scorecard contains two key goals: improve customer (student) delight and become the best choice of larger number of students. In turn, exceeding those students-oriented goals requires efficiently and effectively performing MSA internal business processes.

Consequently the internal perspective of MSA's balanced scorecard focuses on those activities most likely to directly affect stakeholders' perceptions: educational service quality, improved core competencies, advancements in databases, systems and networks, and motivated teaching and administrative staff.

Finally, MSA's top management acknowledged the importance of developing new academic programs and courses, and training its teaching staff to continuously improve educational service. Therefore measures of those two items are included in the learning and innovation perspective of MSA's balanced scorecard.

The MSA Balanced Scorecard provides MSA formulated strategies the required evaluation and improvement that assists MSA to overcome two fundamental problems: ineffective measurement of organizational performance and inefficient implementation of each strategy.

More than just a measurement system, MSA Balanced Scorecard strategy maps provide a continuous cycle of MSA strategy communication and improvement, to invest in the long term – in its students, teaching staff, employees, new educational programs development and systems – rather than improving only short term earnings.

Figure (58): MSA University BSC Main Perspectives

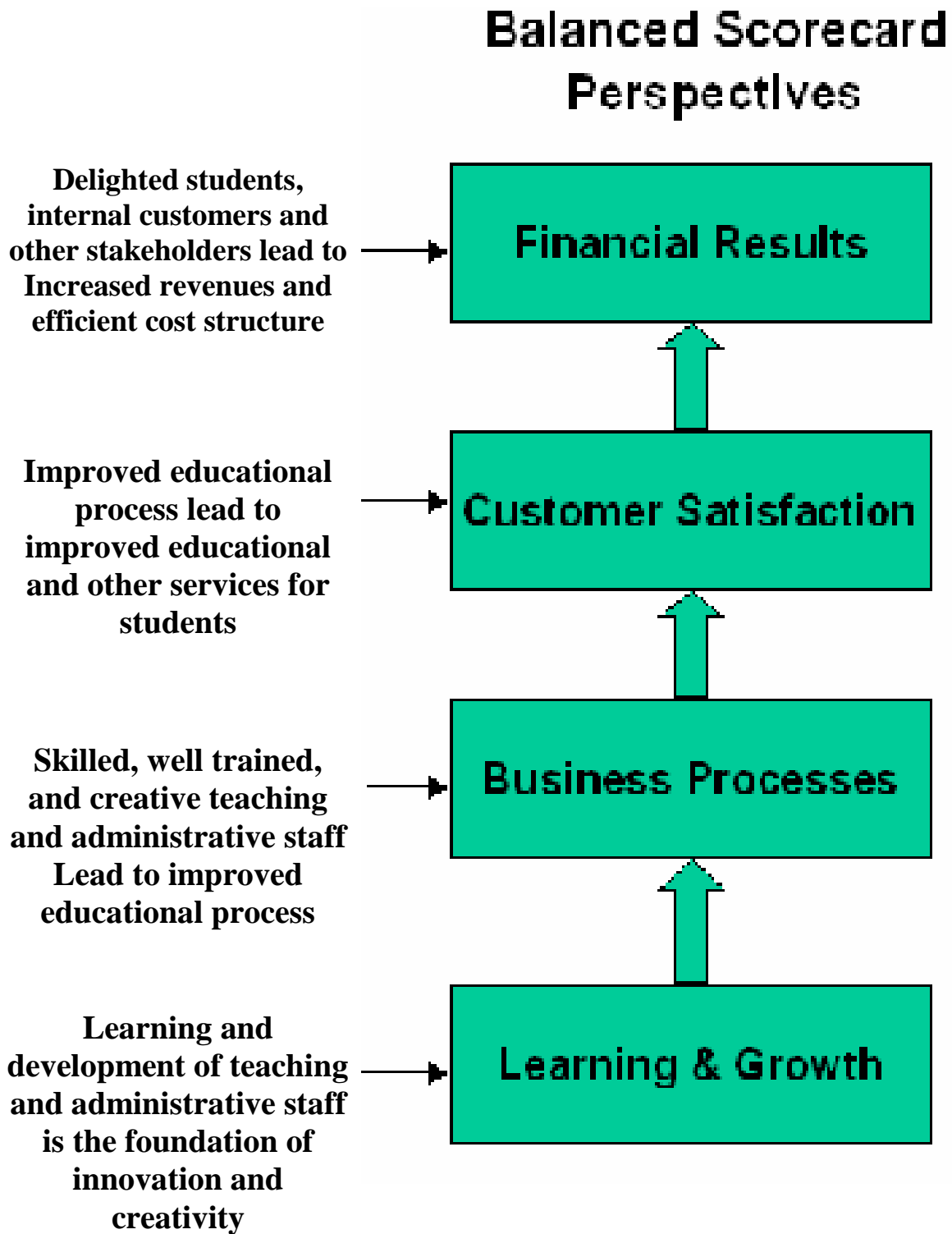


Figure (59): MSA linkage between BSC Perspectives and its strategic activities (previously developed in 2008)

Linkage Between Causes and Strategic Activities

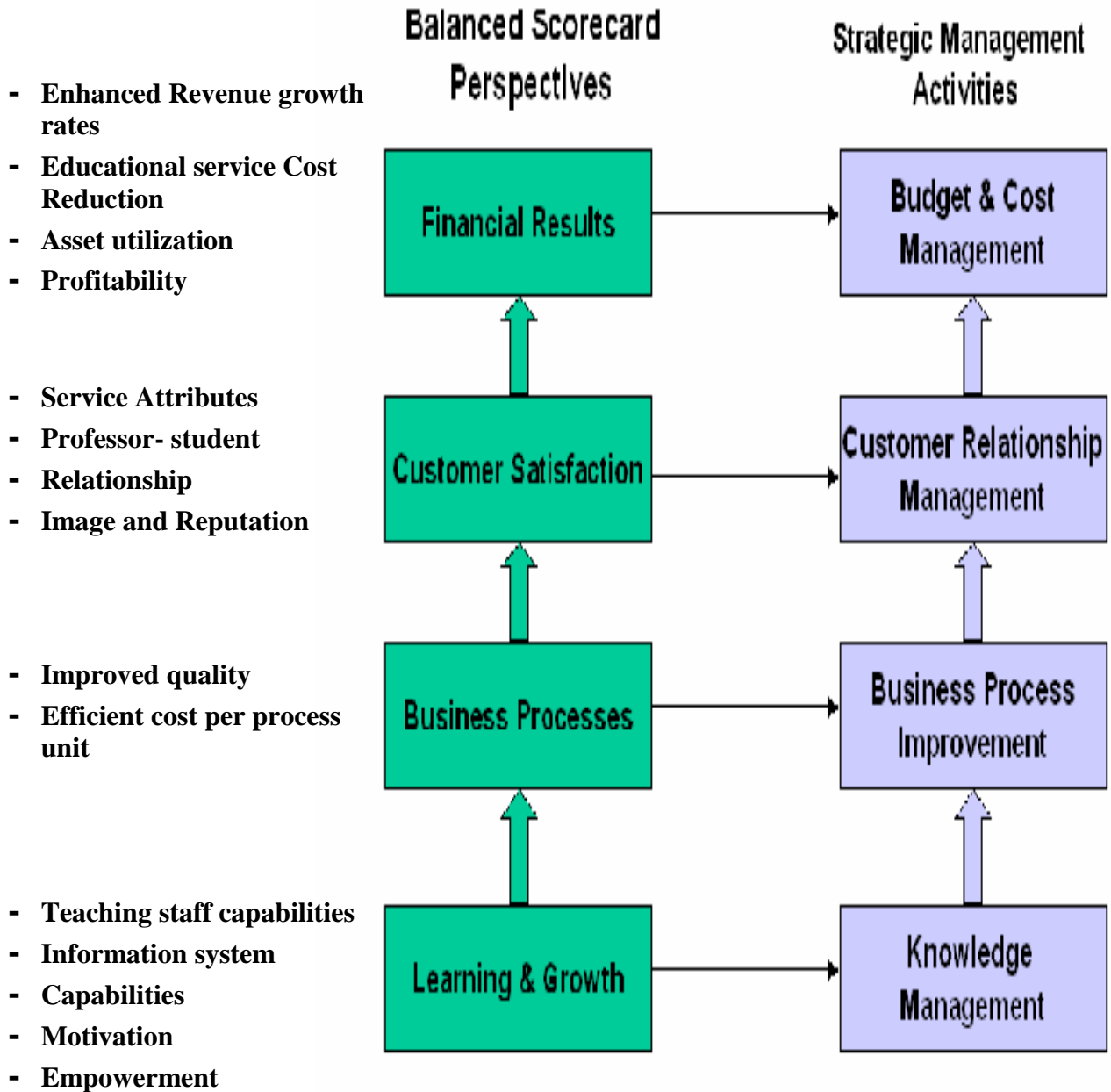


Table (30): MSA UNIVERSITY BALANCED SCORECARD (2008)

Dimension Goals	Measures
<p style="text-align: center;">FINANCIAL</p> <ul style="list-style-type: none"> - New revenue streams from new operations - Positive cash flow 	<ul style="list-style-type: none"> - Amounts of Revenues generated Every year - Amounts of Cash inflows from operations
<p style="text-align: center;">CUSTOMER</p> <ul style="list-style-type: none"> - Improve customer satisfaction - Be the best choice for larger number of students 	<ul style="list-style-type: none"> - rating (0-100) - % of increase in the number of students registered every semester
<p style="text-align: center;">INTERNAL OPERATIONS</p> <ul style="list-style-type: none"> - Quality of graduated students - Educational Service quality 	<ul style="list-style-type: none"> - % of employed graduated students and their names of their organizations - % of succeeded students every semester
<p style="text-align: center;">INNOVATION AND LEARNING</p> <ul style="list-style-type: none"> - New updated Academic Programs - Teaching staff development 	<ul style="list-style-type: none"> - number of new academic courses updated through the revalidation process and variety of elective courses offered every semester - TAs attending advanced training workshops (%) (e.g. ILOs, effective presentation skills)

Figure (60): MSA UNIVERSITY BALANCED SCORECARD (2008)

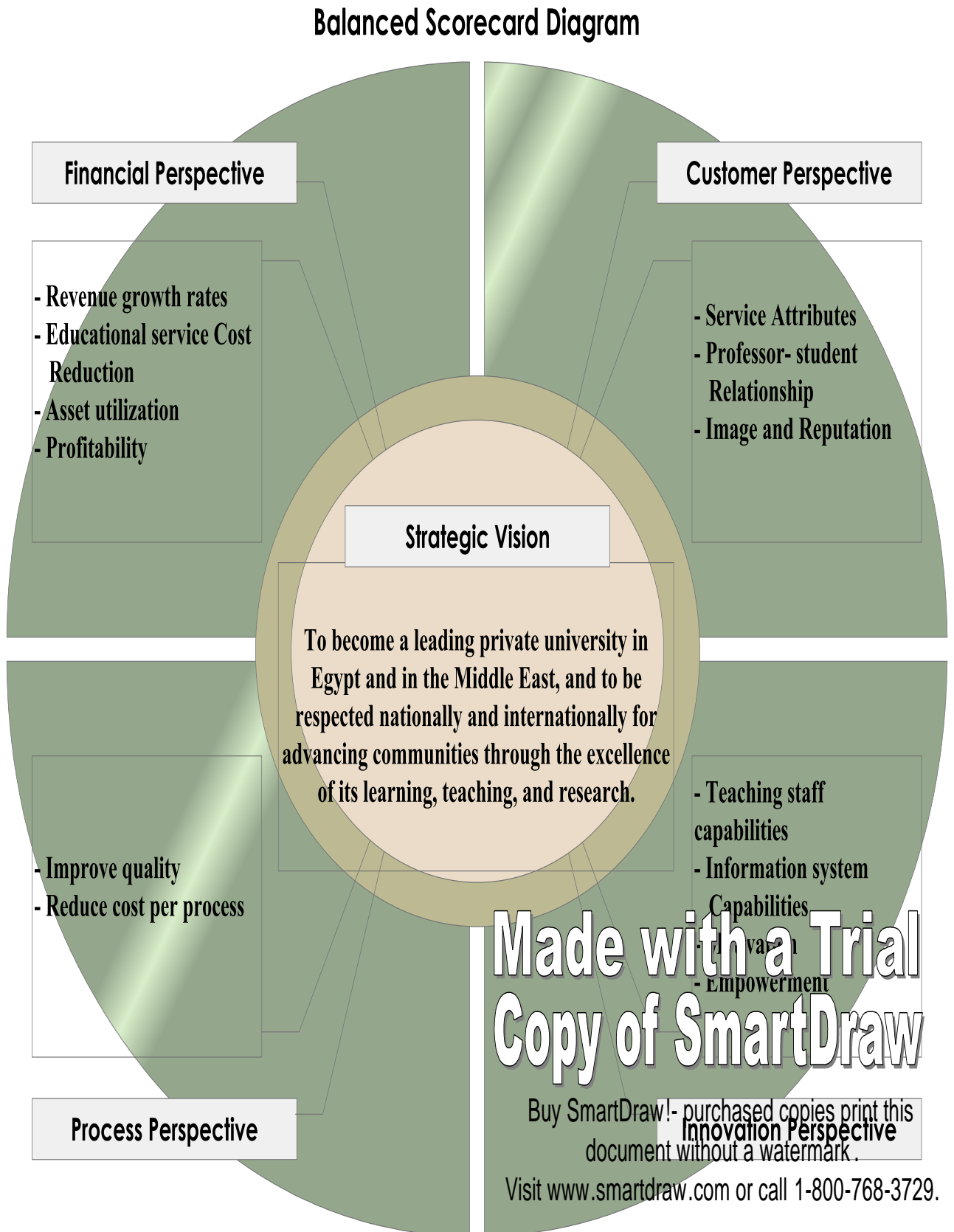


Table (31): MSA UNIVERSITY BALANCED SCORECARD (2010)

(Source: Papenhausen and Einstein, 2006;
Bailey et al., 1999 & cited in Pineno, 2008)

1. Financial Perspective

Goals	Measures
Fund raising	Total funds raised Alumni / business funds generated Number of donors Number and amounts of grants and contracts received
Revenues from operations	Tuition revenue growth Non-tuition revenue Class size, student / faculty staff ratio (for each faculty in MSA university)
Human capital investment	Faculty turnover rate Salaries relative to peer group IIP (e.g., Investing in scholarships)
Financial management-budgeting	Efficiency and effectiveness of budget allocations spent Effectiveness of monitoring supplies and equipment Number of dollars for each revenue generating activity Cost per “credit hour production” relative to benchmark

2. Stakeholder Perspective

Goals	Measures
Attract high quality students	Number and quality of students % of qualified undergraduates selecting MSA
Develop high- quality students’	Quality of teaching and advising GPA overtime
Graduate high-quality students	Quality and timeliness placements Starting salaries Quality and number of Recruiters Internship programs

Student delight	Ability to get access to needed and elective Courses Ease in getting “good” job Students evaluation of university courses Graduate exist surveys
Business community (employers)	Employer survey rating graduate’s Effectiveness No. of MSA staff involved in Community/business service
Internal customer Delight	Effectiveness of orientation process for new staff Availability of well defined job description available to staff Office space and computer availability
Alumni	Focus groups Surveys through e-mail
Parents’	response to surveys Focus groups
Service to the university	Adequacy of participation In campus-wide activities Effective internal communication
Teaching quality	Qualifications of MSA staff
Academic excellence	Quality of students admitted Quality of faculty Accreditation and validation status
Quality research contribution	Level of faculty publications Consulting No. of articles written by staff members

3. Internal processes Perspective

Goals	Measures
Teaching experience	Student delight Teaching and other awards Course evaluations Peer & outside reviews

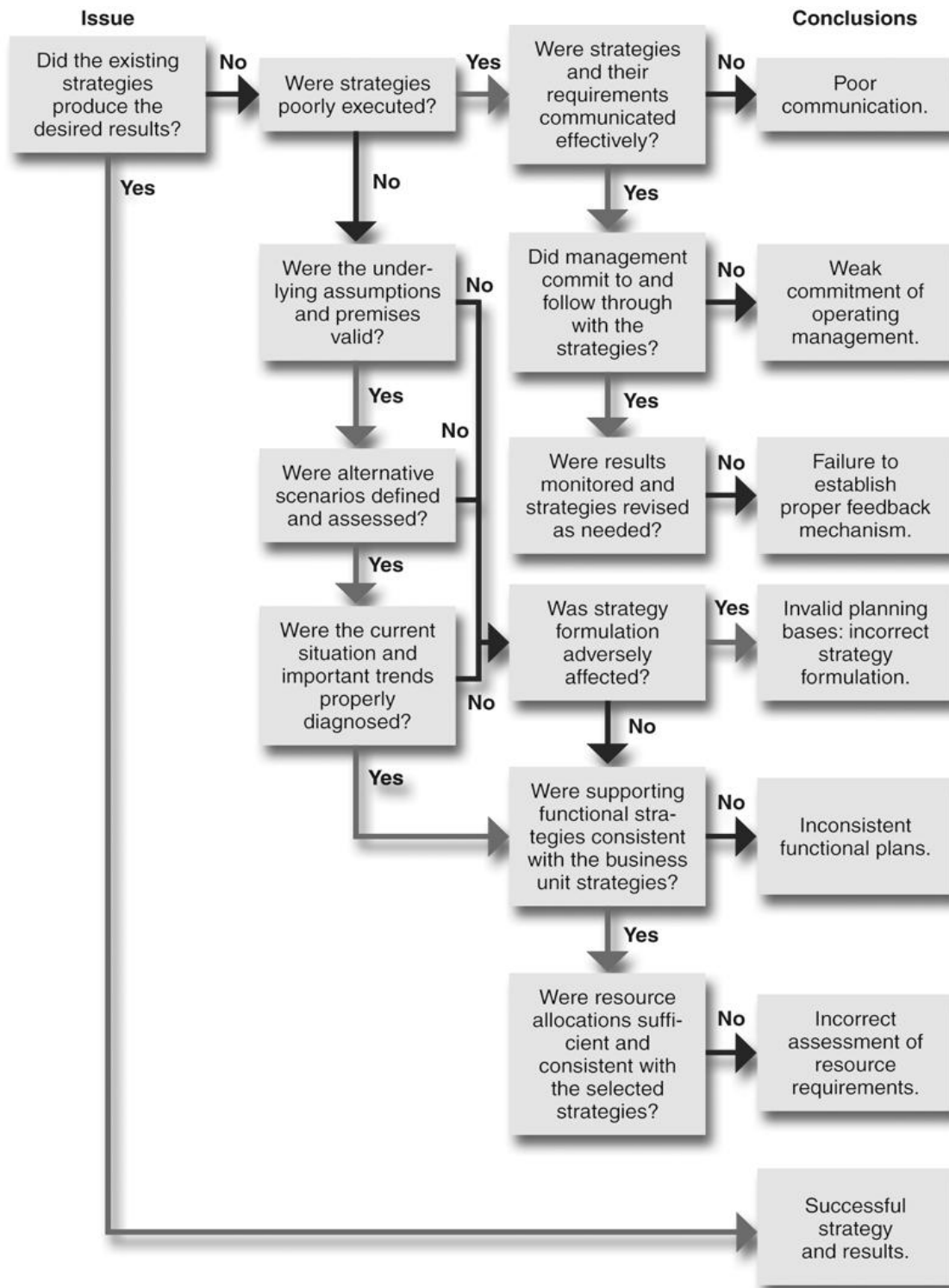
Excellence in improving learning skills	Written and oral exams Portfolios Assessment by course Number of students going to graduate/professional schools Advancement of alumni in Profession
Curriculum excellence and innovation	No. of new courses developed Degree to which curriculum is updated with educational, business and commercial trends
Quality of faculty staff	Staff appraisals Faculty development plans
Classroom material	Utilization rate of multimedia in Classroom

4. Innovation and Learning Perspective

Goals	Measures
Teaching and learning innovation and faculty development	Number of innovations incorporated into classroom Level of equipment Quality of instruction / advising / mentoring Number of new initiatives / courses / programs Formally approved curriculum changes Seminars presented Expenditures for teaching enhancement Number and quality of staff publications / presentations Attendance at conferences Adequacy of classrooms, equipment, computers, library resources
Quality of facilities	% of budget for improved facilities Time required to service, replace, allocation Reports of implementation of decentralization efforts by different faculties
Specific strategic decision implementation (decentralization of faculties)	Evaluation of strategic planning results

Figure (61): MSA STRATEGIC MANAGEMENT EVALUATION PROCESS

Source: Wheelen and Hunger, 2009



MSA University uses this quality control tool for each strategy evaluation, and then will use the QPR Software to ensure continuous improvement.

4.8.2 Using the QPR Software to build MSA Strategy Maps

According to Balanced scorecard collaborative Inc. (2005), QPR (Quality, Processes, and Results) Scorecard is a software solution that provides a robust performance management tool that can help MSA University plan, implement, communicate and assess strategy, commit its people to MSA objectives, improve performance and foster a collaborative management environment that will help lead the MSA University to success.

QPR Scorecard's architecture leverages the power of the Internet and Intranet, providing a convenient medium for both internal as well as external communication. The distributed, multi-user system allows all authorized users within MSA University to view the entire performance measurement model, discuss the measures and strategy and input performance data via their Internet browser. Information security is ensured by individual user rights and authentication.

MSA University is committed to fostering a world-class learning environment and prides itself on active student learning, the quality of their teaching and research, their success at placing students in careers, and their responsiveness to employers and other stakeholders.

Like all universities, MSA University faces many challenges in developing and successfully implementing its strategy within an increasingly competitive environment. To meet the changing needs of their students and the workplace, and to be able to achieve their expectations, MSA University identified its long-term goals and decided that it wants to implement them through various ways that insure accountability.

MSA University has started creating an integrated planning, budgeting and performance management system. The objective was to create better transparency and accountability in MSA University operations. Performance management with Balanced Scorecard was seen as a core part of the solution in order to turn the plans and budgets into action. Improving MSA University's overall performance required providing employees with timely, accurate and relevant information about the factors that influence it.

When it came to supporting the university's academic strategy, information technology support must be in-line and supportive to it. The University recognized this need and responded to it with the acquisition of performance management software - along with the development of a balanced scorecard.

MSA University then evaluated several software products to find the one that could fulfill best its multifunctional needs and support challenging requirements it had set for its strategy implementation. After accurate evaluation, MSA University has chosen QPR Scorecard as its strategy implementation tool and IT solution for automating the University’s performance management system.



Figure (62): QPR (Quality, Processes, and Results) Scorecard software solution part I

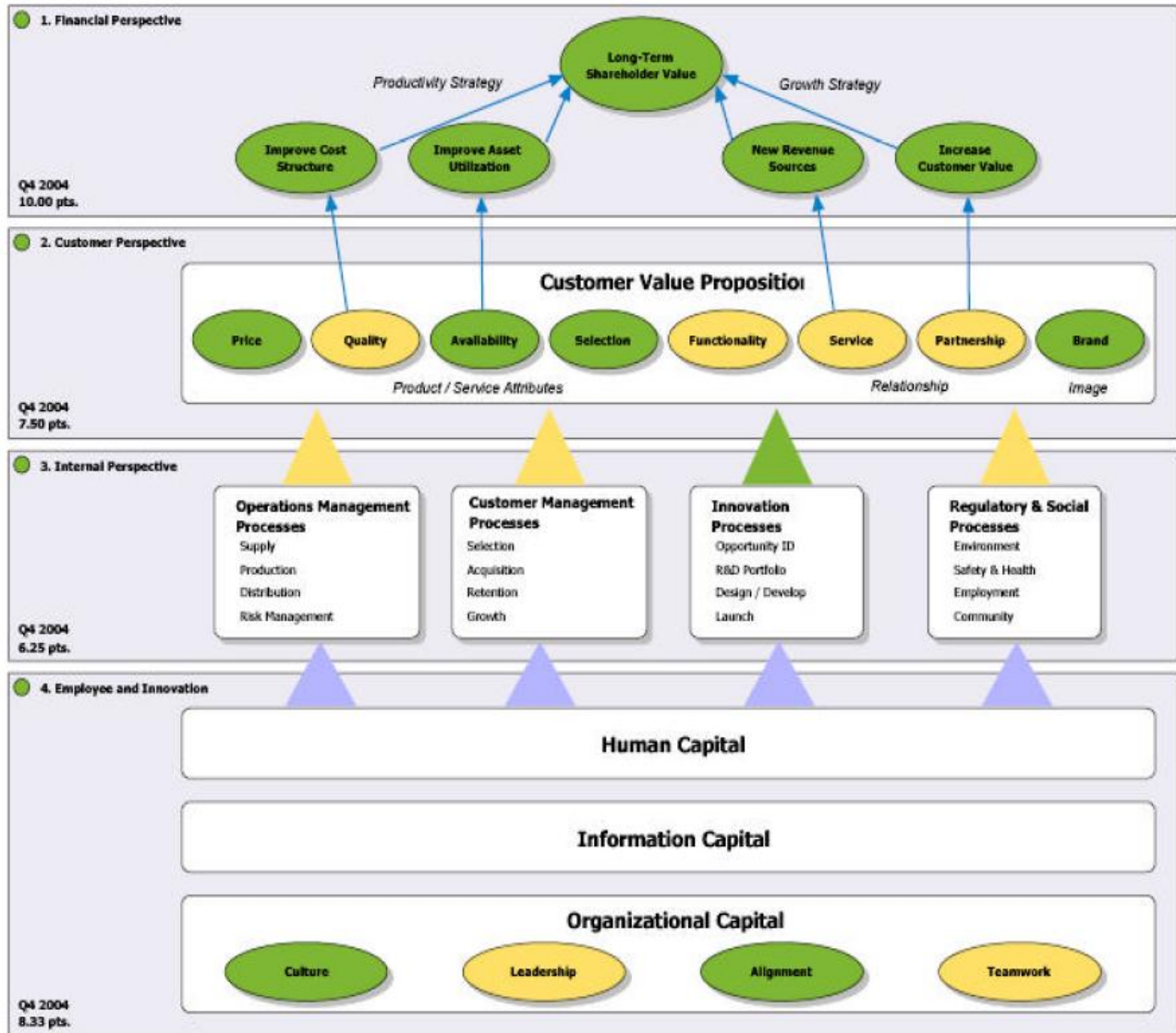
Source: Balanced scorecard collaborative Inc., 2005



Figure (63): QPR (Quality, Processes, and Results) Scorecard software solution part II
 Source: Balanced scorecard collaborative Inc., 2005

The graphical scorecard view offers a simple but complete overview of MSA University’s performance status by adding traffic lights or any desired indicator of choice to performance elements. Warning symbols alert of exceptional performance on lower levels of the measure hierarchy.

Finally, MSA University can automate its human-centric processes, for improving the speed, quality and predictability of the University's operations and allowing it to better leverage its human capital.



Comprehensive strategy map.

Figure (64): QPR (Quality, Processes, and Results) Scorecard software solution part III

Source: Balanced scorecard collaborative Inc., 2005

CHAPTER FIVE

Research Results, Data Analyses and Discussions

5.1 Testing the First Hypothesis (H1)

- a. Hypothesis One states that "The more the understanding of strategy formulation elements, the better the strategy can be described through strategy mapping as a set of logical cause and effect relationships between different strategy activities".
- b. It has been decided that "Pearson's correlation" is appropriate for testing this hypothesis.
- c. Results shows that:

		A	B
A	Pearson Correlation	1	.700 **
	Sig. (1-tailed)		.000

** . Correlation is significant at the 0.01 level (1-tailed).

- d. From the above table, at 0.05 level of significance we reject the null Hypothesis which is H₀, i.e. accepting the First Hypothesis. On a scale from -1 to 1, the direction and the strength of the relation were measured; since the Coefficient of Correlation (r) = 0.7, therefore, there is a strong direct relationship between: A & B.

A \Rightarrow implies B

i.e. if A is true then B is true

- e. Based on the above results, (H 1) is accepted.

f. Graph:

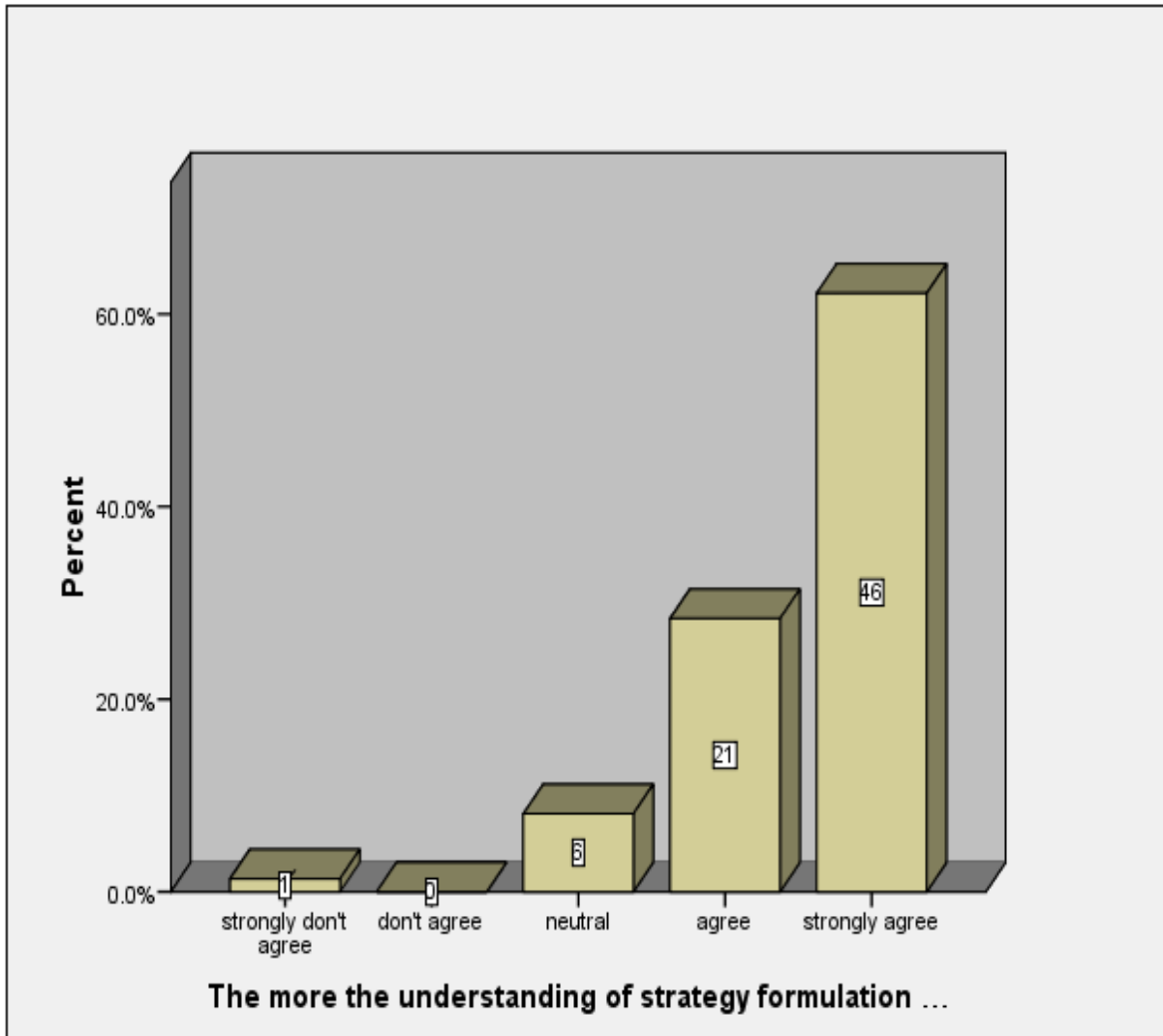


Figure (65): The Frequency and % of Responses for the relationship between Variable (A) and Variable (B)

This means that 46 individuals (61.33%) of the sample strongly agree and 21 individuals (28%) of the sample agree with the first Hypothesis (H1): "The more the understanding of strategy formulation elements, the better the strategy can be described through strategy mapping as a set of logical cause and effect relationships between different strategy activities".

5.2 Testing the Second Hypothesis (H2)

- a. Hypothesis Two states that " The better the strategy can be described as a set of logical cause and effect relationships between different strategy activities, the more unified understanding and clear interpretation of that strategy among all levels".
- b. It has been decided that "Pearson's correlation" is appropriate for testing this hypothesis.
- c. Results shows that:

		A	B	C
B	Pearson Correlation		1	.662**
	Sig. (1-tailed)			.000

** . Correlation is significant at the 0.01 level (1-tailed).

- d. From the above table, at 0.05 level of significance we reject the null Hypothesis which is H₀, i.e. accepting the Second Hypothesis. On a scale from -1 to 1, the direction and the strength of the relation were measured; since the Coefficient of Correlation (r) = 0.662, therefore, there is a strong direct relationship between: B & C.

B ⇒ implies C

i.e. if B is true then C is true

- e. Based on the above results, (H 2) is accepted.

f. Graph:

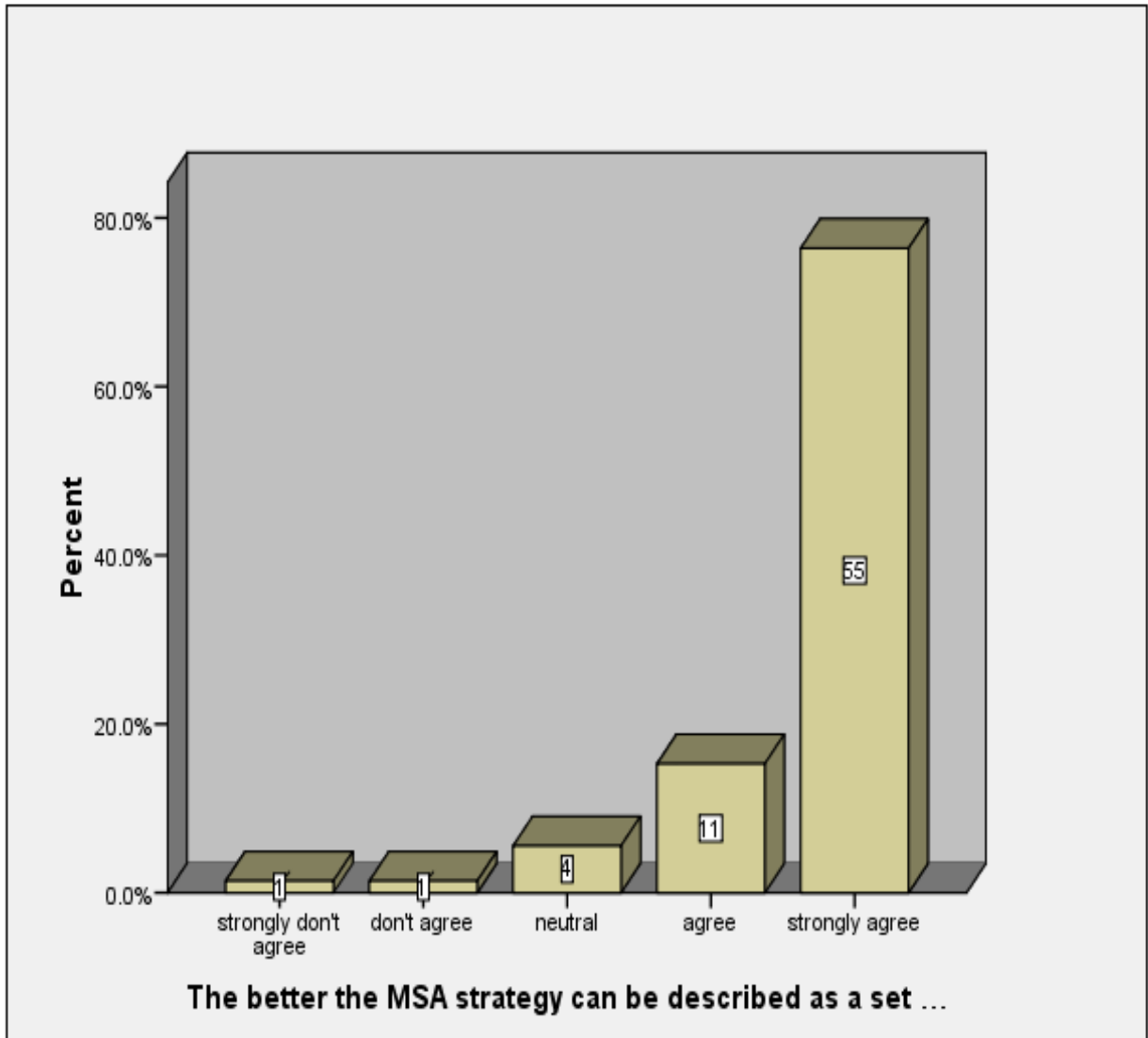


Figure (66): The Frequency and % of Responses for the relationship between Variable (B) and Variable (C)

This means that 55 individuals (73.33%) of the sample strongly agree with the second Hypothesis (H2): "The better the MSA strategy can be described as a set of logical cause and effect relationships between different strategy activities, the more unified understanding and clear interpretation of that strategy among all levels"

5.3 Testing the Third Hypothesis (H3)

- a. Hypothesis Three states that "The less the differences in individuals' interpretation of an organization's strategy, the easier and more effective strategy implementation will be".
- b. It has been decided that "Pearson's correlation" is appropriate for testing this hypothesis.
- c. Results shows that:

		A	B	C	D
C	Pearson Correlation			1	.886 **
	Sig. (1-tailed)				.000

** . Correlation is significant at the 0.01 level (1-tailed).

- d. From the above table, at 0.05 level of significance we reject the null Hypothesis which is H₀, i.e. accepting the Third Hypothesis. On a scale from -1 to 1, the direction and the strength of the relation were measured; since the Coefficient of Correlation (r) = 0.886, therefore, there is a strong direct relationship between: C & D.

C ⇒ implies D i.e. if C is true then D is true

- e. Based on the above results, (H 3) is accepted.

f. Graph:

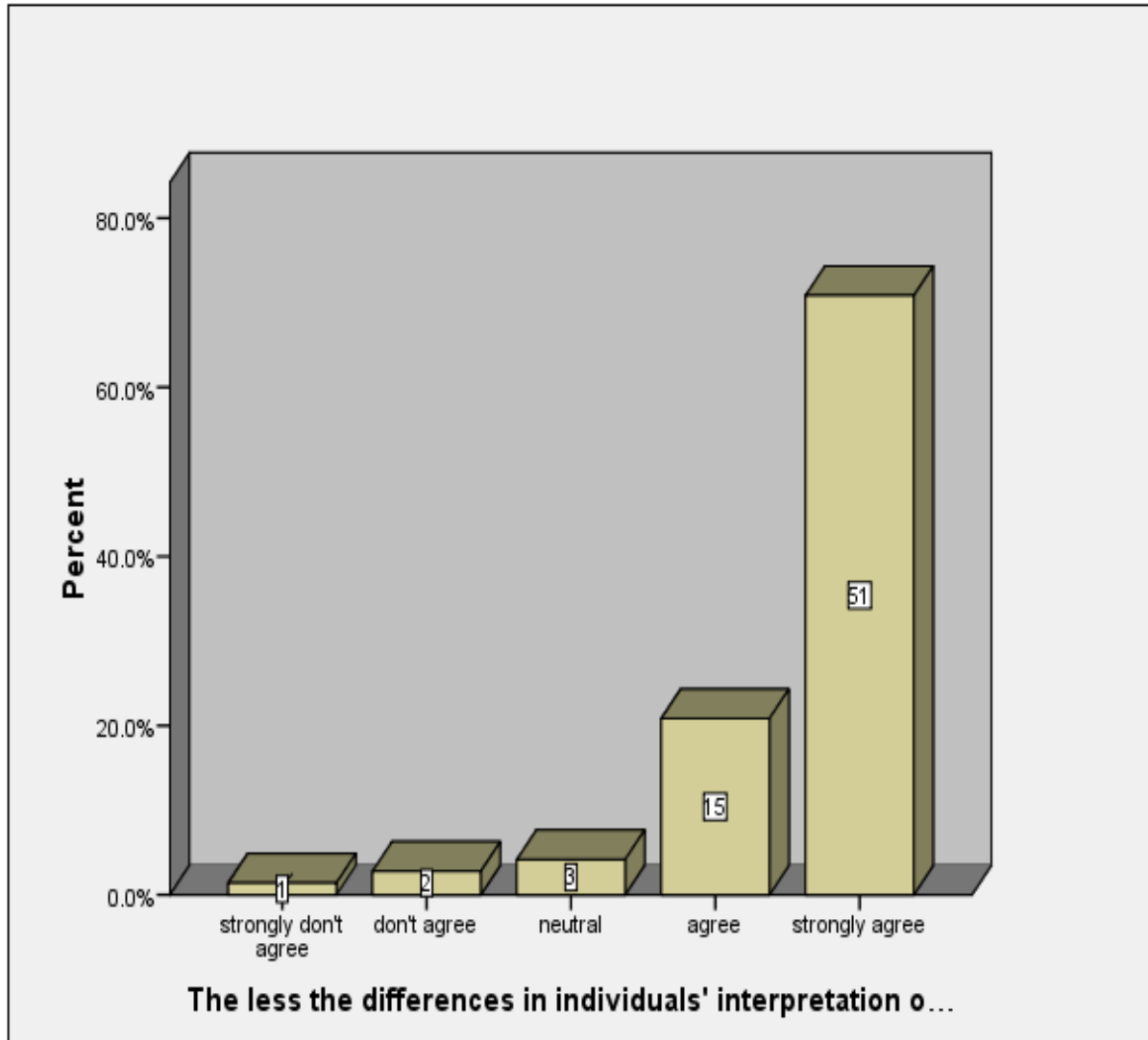


Figure (67): The Frequency and % of Responses for the relationship between Variable (C) and Variable (D)

This means that 51 individuals (68%) of the sample strongly agree and 15 individuals (20%) of the sample agree with the third Hypothesis (H3): "The less the differences in individuals' interpretation of MSA strategy, the easier and more effective strategy implementation will be"

5.4 Testing the Fourth Hypothesis (H4/1)

- a. Hypothesis Four states that “The better the financial and non financial performance indicators can be linked into measurable cause and effect framework through strategy mapping, the easier the strategy can be evaluated”.
- b. It has been decided that “Pearson’s correlation” is appropriate for testing this hypothesis.
- c. Results shows that:

		A	B	C	D	E1
D	Pearson Correlation				1	.896 **
	Sig. (1-tailed)					.000

** . Correlation is significant at the 0.01 level (1-tailed).

- d. From the above table, at 0.05 level of significance we reject the null Hypothesis which is H₀, i.e. accepting the Fourth Hypothesis. On a scale from -1 to 1, the direction and the strength of the relation were measured; since the Coefficient of Correlation (r) = 0.896, therefore, there is a strong direct relationship between: D & E₁.

D ⇒ implies E₁ i.e. if D is true then E₁ is true

- e. Based on the above results, (H 4/1) is accepted.

f. Graph:

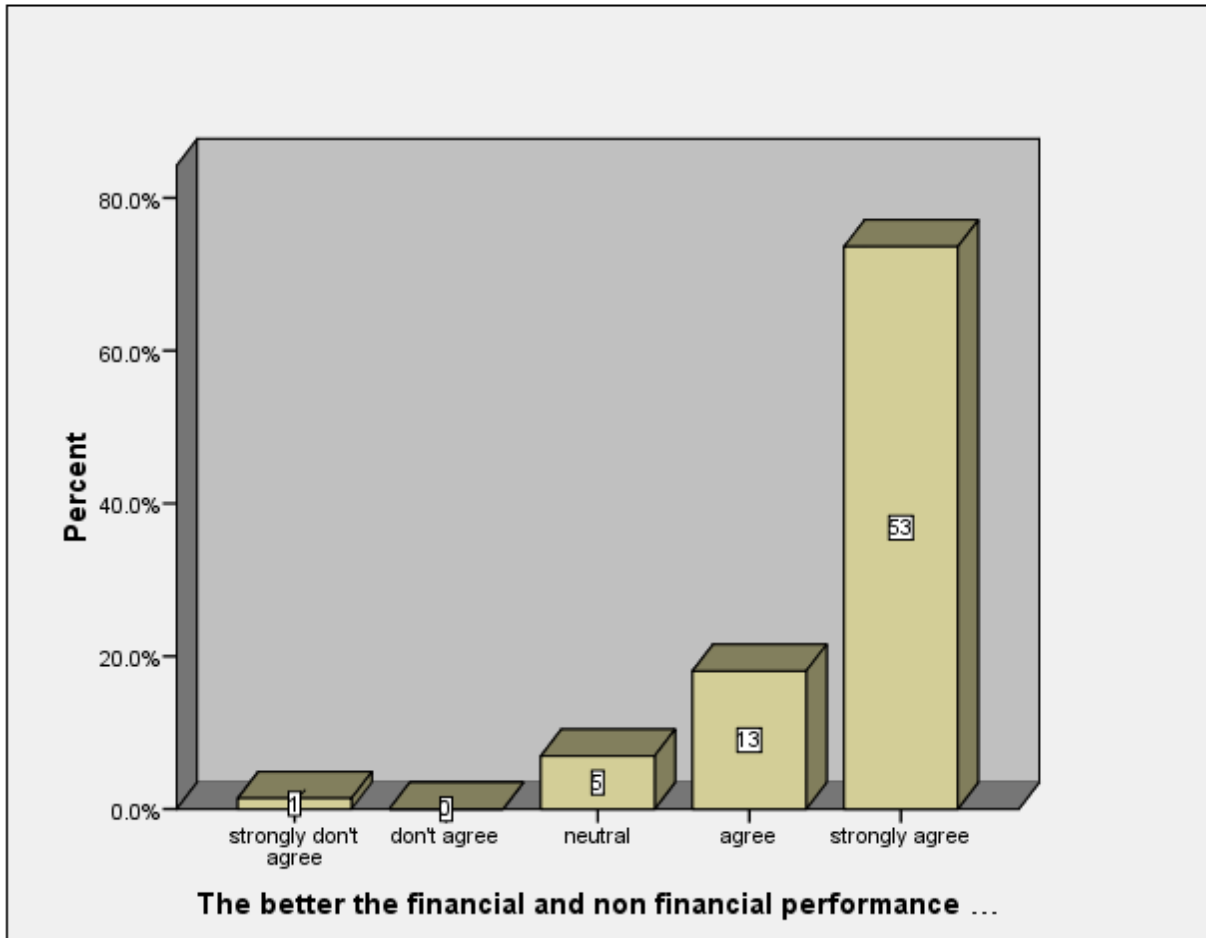


Figure (68): The Frequency and % of Responses for the relationship between Variable (D) and Variable (E₁)

This means that 53 individuals (70.67%) of the sample strongly agree and 13 individuals (17.33%) of the sample agree with the fourth Hypothesis (H4/1): "The better the financial and non financial performance indicators can be linked into measurable cause and effect framework through strategy mapping, the easier the strategy can be evaluated".

5.5 Testing the Fifth Hypothesis (H4/2)

- a. Hypothesis Five states that “The easier the strategy can be evaluated from different perspectives, the more the chosen strategy can be improved”.
- b. It has been decided that “Pearson’s correlation” is appropriate for testing this hypothesis.
- c. Results shows that:

		A	B	C	D	E1	E2
A	Pearson Correlation	1					.865**
	Sig. (1-tailed)						.000
E1	Pearson Correlation					1	.847**
	Sig. (1-tailed)						.000
E2	Pearson Correlation						1

** . Correlation is significant at the 0.01 level (1-tailed).

- d. From the above table, at 0.05 level of significance we reject the null Hypothesis which is H₀, i.e. accepting the Fifth Hypothesis. On a scale from -1 to 1, the direction and the strength of the relationship between E₁ & E₂ were measured; since the Coefficient of Correlation (r) = 0.847, therefore, there is a strong direct relationship between: E₁ & E₂. Then, the direction and the strength of the relationship between E₂ & A were measured; since the Coefficient of Correlation (r) = 0.865, therefore, there is a strong direct relationship between: E₂ & A.

$E_1 \Rightarrow E_2$ i.e. if E1 is true then E2 is true

$E_2 \Rightarrow A$ i.e. if E2 is true then A is true

$E_1 \wedge E_2 \Rightarrow E$ i.e. if E1 is true and E2 is true then E is true

Legend	
\wedge	: Conjunction
\Rightarrow	: Implication

e. Based on the above results, (H 4/2) is accepted.

f. Graph:

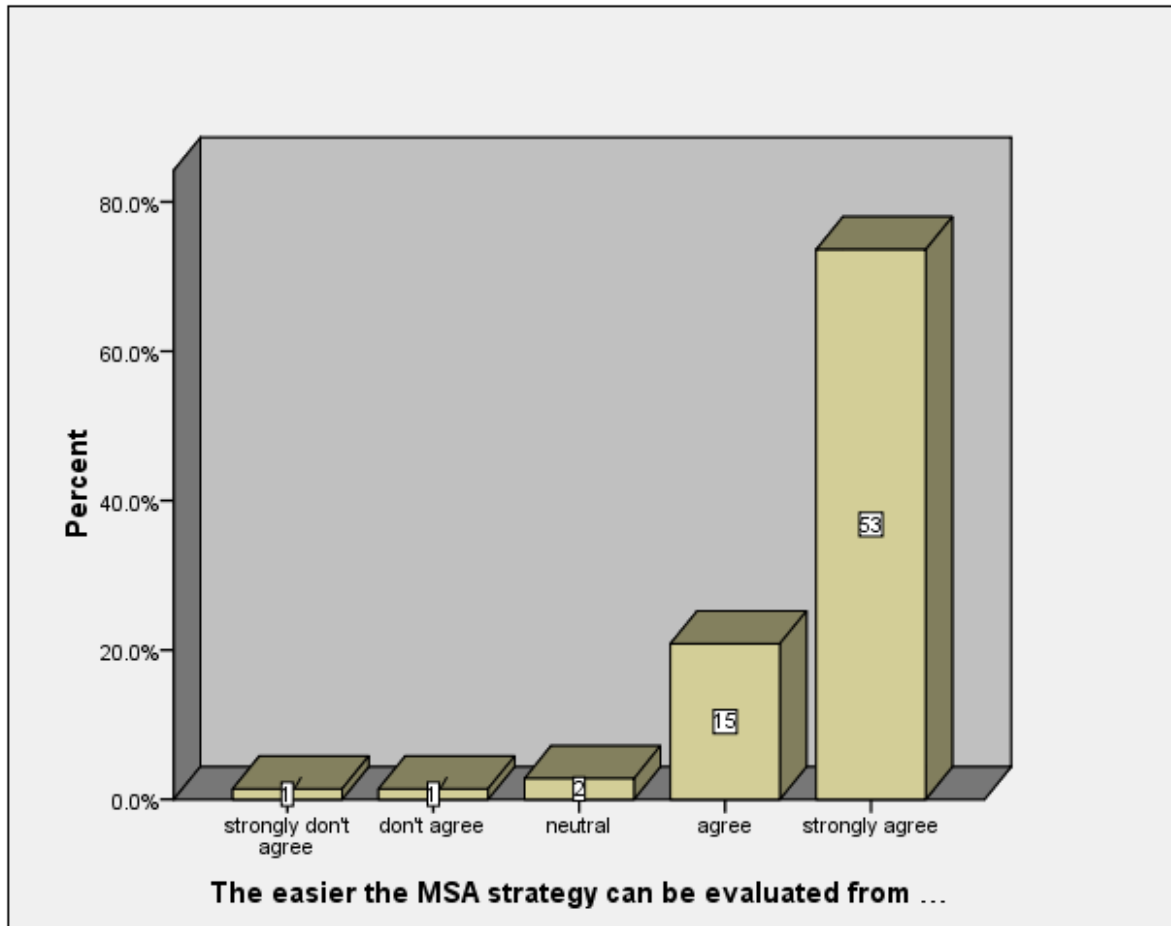


Figure (69): The Frequency and % of Responses for the relationship between Variable (E_1) and Variable (E_2)

This means that 53 individuals (70.67%) of the sample strongly agree and 15 individuals (20%) of the sample agree with the fifth Hypothesis ($H_{4/2}$): "The easier the MSA strategy can be evaluated from different perspectives, the more the chosen strategy can be improved".

Table (32): Pearson's correlation coefficient

		Correlations					
		A	B	C	D	E1	E2
A	Pearson Correlation	1	.700**	.881**	.866**	.832**	.865**
	Sig. (1-tailed)		.000	.000	.000	.000	.000
B	Pearson Correlation		1	.662**	.804**	.682**	.681**
	Sig. (1-tailed)			.000	.000	.000	.000
C	Pearson Correlation			1	.886**	.868**	.864**
	Sig. (1-tailed)				.000	.000	.000
D	Pearson Correlation				1	.896**	.847**
	Sig. (1-tailed)					.000	.000
E1	Pearson Correlation					1	.847**
	Sig. (1-tailed)						.000
E2	Pearson Correlation						1
	Sig. (1-tailed)						

** . Correlation is significant at the 0.01 level (1-tailed).

From the above table, at 0.05 level of significance we reject H₀. On a scale from -1 to 1, the direction and the strength of the relation were measured; the relation is assumed to be weak if the correlation coefficient < 0.5 and strong if more than that.

The sign gives the direction of the relation, if positive, the relation is direct and if negative the relation is indirect.

Therefore, there is a strong direct relationship between:

A & B

B & C

C & D

D & E₁

E₁ & E₂

E₂ & A

5.6 The Reliability Analysis

Reliability Analysis was conducted based on Cronbach's Alpha. Since, it is obvious that the test in all scales is more than 0.8. Therefore, the measures (scales) are reliable, thus, the next test was conducted using factor analysis.

Table (33): The Reliability Analysis of the Research Variables (Based on Cronbach's Alpha)

Variable	Questions	Cronbach's Alpha
A: Strategy Formulation	q1.1.1 - q1.1.2 - q1.1.3 - q1.1.4 q1.2.1 - q1.2.2 - q1.2.3 - q1.2.4 q1.2.5 - q1.3.1 - q1.3.2 - q1.3.3 q1.3.4 - q1.4.1 - q1.4.2 - q1.4.3 q1.4.4 - q1.4.5 - q1.4.6 - q1.5.1 q1.5.2 - q1.6.1 - q1.6.2 - q1.6.3	.925
B: Strategy Description	q2.1.1 - q2.1.2 - q2.1.3 - q2.1.4 q2.1.5 - q2.1.6 - q2.1.8 - q2.1.9 q2.1.10 - q2.1.11	.825
C: Strategy Understanding and Interpretation	q2.2.1 - q2.2.2 - q2.2.3 - q2.2.4 q2.2.5 - q2.2.6 - q2.2.9 q2.2.10 - q2.2.11 - q2.2.12 q2.2.13 - q2.2.14 - q2.2.15 q2.2.16 - q2.2.17 - q2.2.18	.889
D: Strategy Implementation	q3.1.1 - q3.1.2 - q3.1.3 - q3.1.4 q3.1.5 - q3.2.1 - q3.2.2 - q3.2.3 q3.3.1 - q3.3.2 - q3.3.3 - q3.3.4 q3.4.1 - q3.4.2 - q3.4.3 - q3.5.1 q3.6.1 - q3.6.2 - q3.6.3 - q3.7.1 q3.7.2 - q3.7.3 - q3.8.1 - q3.8.2 q3.8.3 - q3.8.4 - q3.8.5	.930
E1: Strategy Evaluation	q4.1.1 - q4.1.2 - q4.1.3 - q4.1.4 q4.1.5 - q4.1.6 - q4.2.1 - q4.2.2 q4.2.3 - q4.3.1 - q4.3.2 - q4.3.3 q4.4.1 - q4.4.2 - q4.4.3 - q4.4.4	.887
E2: Strategy Improvement	q5.1 - q5.2 - q5.3 - q5.4 - q5.5 q5.6 - q5.7 - q5.8	.860

5.7 The Factor Analysis

Factor analysis is a statistical method used to describe variability among observed variables in terms of a potentially lower number of unobserved variables called factors. In other words, it is possible, for example, that variations in three or four observed variables mainly reflect the variations in a single unobserved variable, or in a reduced number of unobserved variables. Factor analysis searches for such joint variations in response to unobserved latent variables. The observed variables are modeled as linear combinations of the potential factors, plus "error" terms. The information gained about the interdependencies between observed variables can be used later to reduce the set of variables.

Factor analyses are performed by examining the pattern of correlations (or covariances) between the observed measures. Measures that are highly correlated (either positively or negatively) are likely influenced by the same factors, while those that are relatively uncorrelated are likely influenced by different factors. This can be shown through the Total Variance explained and the Component Matrix.

A. Total Variance explained:

Component (Factor/Variable)	% of variance
A: Strategy Formulation	39.635
B: Strategy Description	39.660
C: Strategy Understanding and Interpretation	38.988
D: Strategy Implementation	40.871
E1: Strategy Evaluation	39.877
E2: Strategy Improvement	51.063

Table (34): The Total Variance explained for this research variables

The above table illustrates that:

- Factor (A) accounts for 39.635 percent of the variance.
- Factor (B) accounts for 39.660 percent of the variance.
- Factor (C) accounts for 38.988 percent of the variance.
- Factor (D) accounts for 40.871 percent of the variance.
- Factor (E1) accounts for 39.877 percent of the variance.
- Factor (E2) accounts for 51.063 percent of the variance.

B. The Component Analysis

Table (35): The Component Matrix for the Research variables and its related Questionnaire Questions

variable	A	B	C	D	E1	E2
q1.1.1	.773					
q1.1.2	.860					
q1.1.3	.788					
q1.1.4	.721					
q1.2.1	.636					
q1.2.2	.875					
q1.2.3	.777					
q1.2.4	.618					
q1.2.5	.179					
q1.3.1	.614					
q1.3.2	.499					
q1.3.3	.674					
q1.3.4	.539					
q1.4.1	.805					
q1.4.2	.778					
q1.4.3	.542					
q1.4.4	.530					
q1.4.5	.377					
q1.4.6	.720					
q1.5.1	.265					
q1.5.2	-.108					
q1.6.1	.760					
q1.6.2	.293					
q1.6.3	.491					
q2.1.1		.611				
q2.1.2		.590				
q2.1.3		.673				
q2.1.4		.608				
q2.1.5		.447				
q2.1.6		.725				
q2.1.8		.682				
q2.1.9		.677				

q2.1.10		.557			
q2.1.11		.680			
q2.2.1			.871		
q2.2.2			.866		
q2.2.3			.675		
q2.2.4			.565		
q2.2.5			.148		
q2.2.6			.680		
q2.2.9			.519		
q2.2.10			.710		
q2.2.11			.653		
q2.2.12			.615		
q2.2.13			.727		
q2.2.14			.353		
q2.2.15			.558		
q2.2.16			.489		
q2.2.17			.672		
q2.2.18			.487		
q3.1.1				.843	
q3.1.2				.812	
q3.1.3				.801	
q3.1.4				.749	
q3.1.5				.292	
q3.2.1				-.177-	
q3.2.2				.549	
q3.2.3				.524	
q3.3.1				.426	
q3.3.2				.335	
q3.3.3				.826	
q3.3.4				.764	
q3.4.1				.823	
q3.4.2				.684	
q3.4.3				.803	
q3.5.1				.753	
q3.6.1				.497	
q3.6.2				-.110-	
q3.6.3				.718	
q3.7.1				.176	
q3.7.2				.719	

q3.7.3				.502		
q3.8.1				.811		
q3.8.2				.805		
q3.8.3				.608		
q3.8.4				.371		
q3.8.5				.683		
q4.1.1					.627	
q4.1.2					.799	
q4.1.3					.603	
q4.1.4					.660	
q4.1.5					.681	
q4.1.6					.769	
q4.2.1					.801	
q4.2.2					.613	
q4.2.3					.791	
q4.3.1					.651	
q4.3.2					.777	
q4.3.3					.351	
q4.4.1					.701	
q4.4.2					.248	
q4.4.3					.385	
q4.4.4					-.009-	
q5.1						.770
q5.2						.656
q5.3						.670
q5.4						.716
q5.5						.794
q5.6						.746
q5.7						.752
q5.8						.588

This table contains the factor loadings, which are the correlations between each factor and its related variables (Questionnaire Questions). These correlations have possible values that range from -1 (negative relationship) to +1 (positive relationship).

5.8 Analyzing the Frequencies of some Important Questions

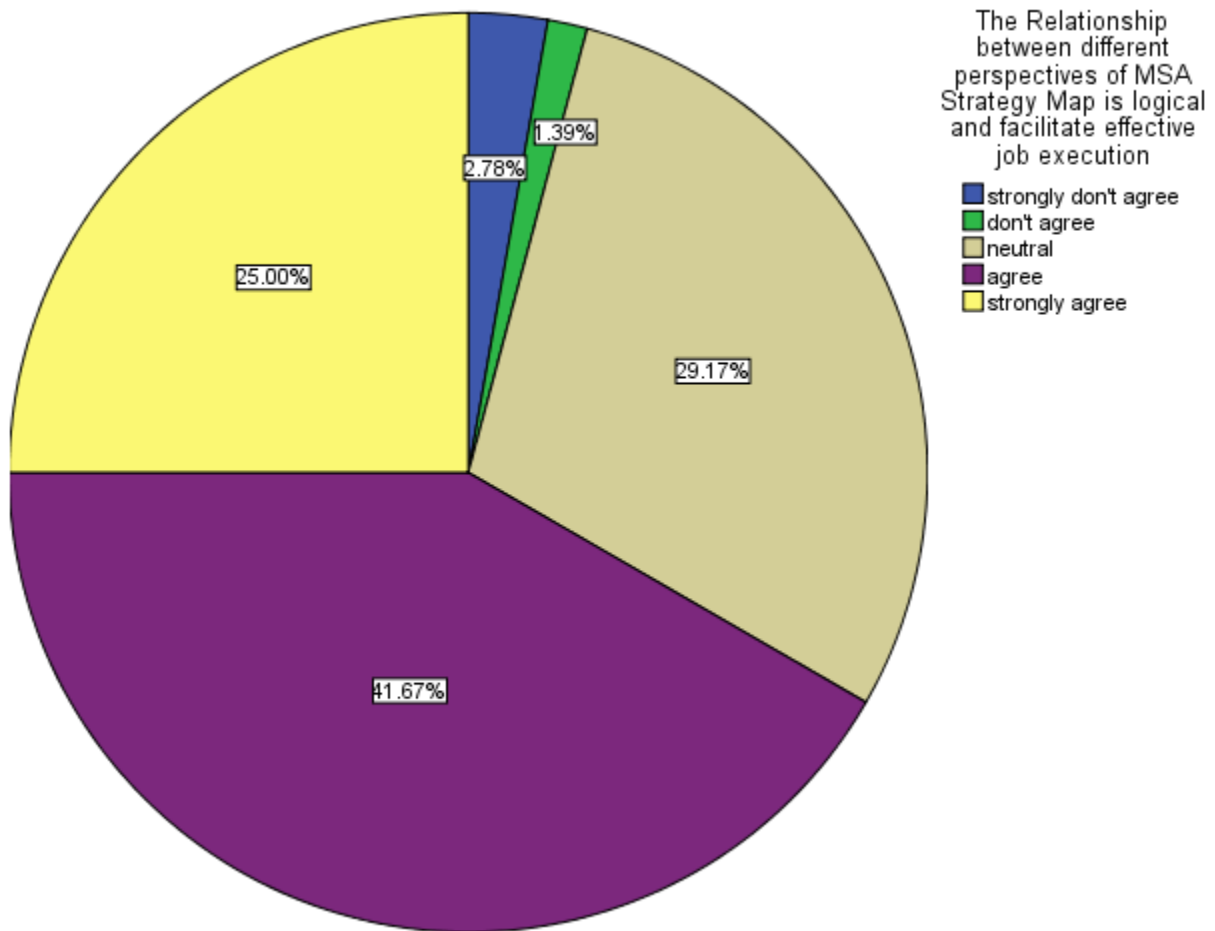


Figure (70): The % of Responses for Question no. 2.1.6

This means that 25% of the sample strongly agree, and 41.67% of the sample agree with: "The relationship between different perspectives of MSA strategy map is logical and facilitate effective job execution/implementation ".

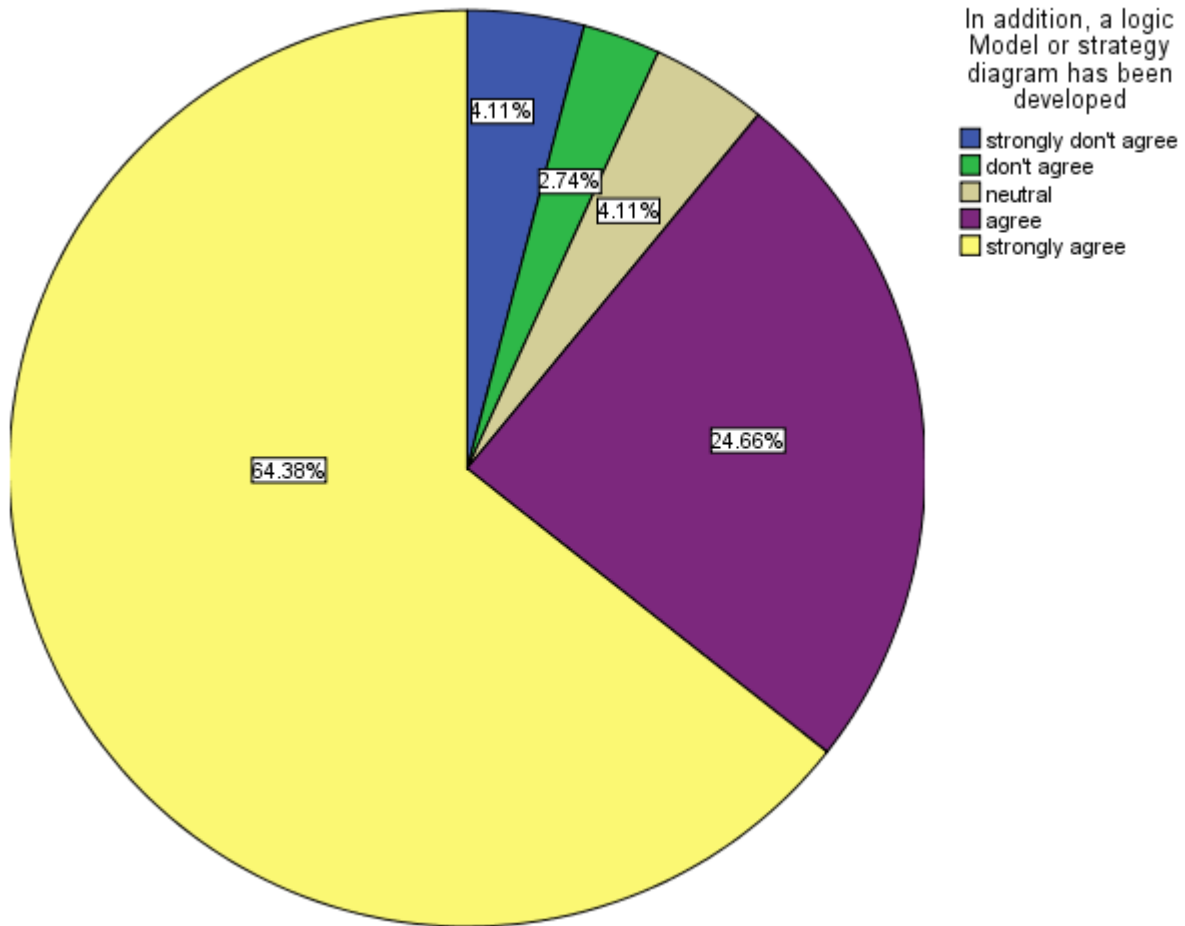


Figure (71): The % of Responses for Question no. 2.1.4

This means that 64.38% of the sample strongly agree, and 24.66% of the sample agree with that: "A logic model or strategy diagram has been developed."

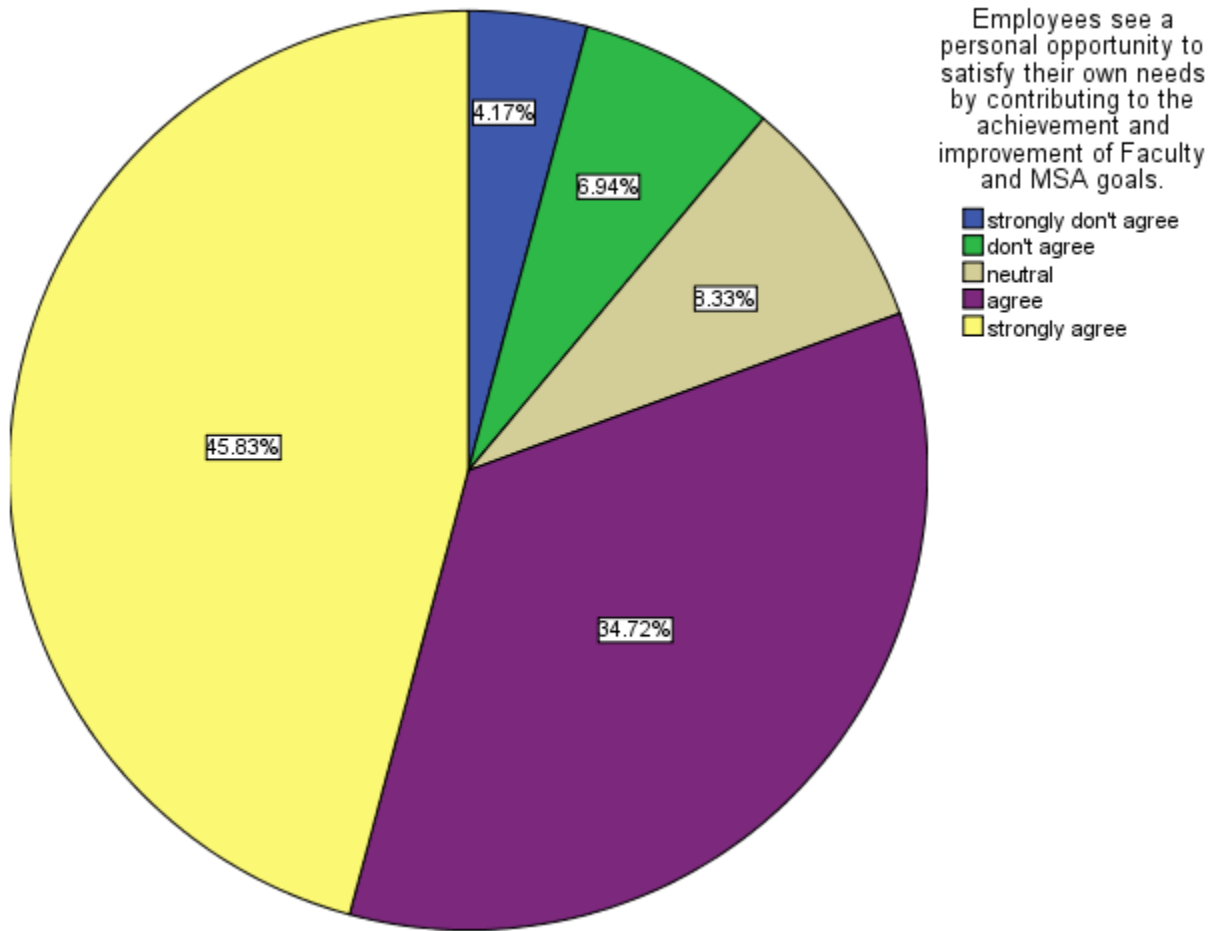


Figure (72): The % of Responses for Question no. 5.6

This means that 45.83% of the sample strongly agree, and 34.72% of the sample agree with that: “Employees see a personal opportunity to satisfy their own needs by contributing to the achievement and improvement of Faculty and MSA goals.”.

CHAPTER SIX

Conclusions and Recommendations

6.1 Summary of Findings and Conclusions

This research reviewed the relevant previous literature regarding strategic management, Business Communications, performance management and especially the BSC strategy map.

This research discussed how the Strategy Map was introduced by Kaplan and Norton (1996; 2000). It provides the visual framework for integrating the organization's objectives in the four perspectives of a balanced scorecard. It depicts the cause-and-effect interdependent relationships that link desired outcomes in the stakeholder and financial perspectives to maximized and enhanced performance in critical internal processes –operations management, stakeholder delight, innovation and regulatory and social processes. These critical processes develop and deliver each organizational value proposition to targeted customers and also improve the organization's productivity and growth objectives in the financial perspective. In addition to that, the strategy map identifies the specific capabilities in the organization's intangible assets –human capital, information capital, and organization capital –which are needed for delivering outstanding quality based performance in the critical internal processes.

Moreover, this research argued how strategy maps help in translating each organizational strategy into operational terms, which is a critical step for anyone trying to implement each organizational strategy. Therefore, to be effective, formulating, communicating and improving each strategy should become a part of the everyday life of any organization, and be more than simply a record on a shelf in an executive suite.

Thus, if any organization wants to implement its strategy, this research suggests – building on the previous literature- it has to begin by describing it then translating it to operational terms, to be well communicated. This is the great value adding contribution of the Balanced Scorecard Strategy Map. Since, the Strategy Map is an integrated visual illustration of each organizational strategy, it should tell the story of that strategy and depict the organization's overall corporate agenda on one expressive page, reflecting its cause and effect interrelated relationships between four main perspectives.

Based on reviewing the previous literature, this research revealed that some studies focused the attention on the BSC Strategy Map, and tried to discuss how it may be used as one of the effective performance and strategic management tools in higher educational institutions and

universities, as it can set educational measures and objectives for the purpose of improving the effectiveness, efficiency and competitiveness of the educational process in an ever changing globalized environment. Moreover, it enhances the efficiency of delivering the educational quality message to everyone inside and outside these educational institutions.

As a result of the previous literature findings, this research introduced some of these models (eleven models) from different countries in public and private educational institutions which are using the strategy mapping in improving their strategic performance management system.

However, what can be observed in the existing literature –and was pointed out and discussed through this research- is a lack of an integrated comprehensive model to carry on a practical implementation of performance management systems in educational institutions, using a business processes approach (e.g. BSC strategy map).

Thus, this research presented a suggested framework of an integrated continuous process of strategy communication and improvement model, which was designed and applied to one Egyptian private university (MSA University).

Additionally, this research topic was examined in practice in that Egyptian educational institution (MSA University) for two important reasons: the first one lies in the importance of applying the strategy mapping to an Egyptian university as the BSC strategy map has been used worldwide in the business sector but not widely applied to the educational sector especially in Egypt; while the second reason emerges from the ease of access to the required detailed data, as the researcher is working in this private university as an Instructor of Strategic management and Business Communications courses.

This conducted case research can be characterized as a qualitative and quantitative research. The qualitative part of this research was applied to that University, through carrying out a comprehensive strategic audit, to gain a qualitative insight and understanding of the primary data collected through: (a) Depth Interviews conducted with some individuals of MSA leaders, teaching and administrative staff, and (b) Focus Groups held with MSA internal (MSA teaching and administrative staff) and external customers (MSA students and alumni).

Thus, the Qualitative Data analysis was conducted using different strategic matrices and performance management models that were made by the researcher for this study, which was presented throughout chapter four (e.g. Strategic Groups, Issues Priority Matrix, TWOS Matrix and other strategic matrices).

While, the quantitative part of this research was applied to the same university, to quantify the primary data collected, through personal and electronic (via e-mails) surveys, then a quantitative statistical analysis is used to interpret and analyze this quantitative data. This Quantitative Data analysis was made using the SPSS to analyze the primary data collected from the research questionnaires. Thus, the following research hypotheses were proven to be accepted (i.e., after rejecting the null hypotheses), it was proven that:

1. The more the understanding of strategy formulation elements, the better the strategy can be described through strategy mapping as a set of logical cause and effect relationships between different strategy activities (a set of drivers for desired outcomes).
2. The better the strategy can be described as a set of logical cause and effect relationships between different strategy activities, the more unified understanding and clear interpretation of that strategy among all levels.
3. The less the differences in individuals' interpretation of an organization's strategy, the easier and more effective strategy implementation will be.
4. The better the financial and non financial performance indicators can be linked into measurable cause and effect framework through strategy mapping, the easier the strategy can be evaluated.
5. The easier the strategy can be evaluated from different perspectives, the more the chosen strategy can be improved.

In summary, the contribution that this research makes is as follows: The importance of this research lies in its contribution to the literature of the strategic and performance management from a developing country prospective (Egypt), as the Balanced Scorecard strategy map has been

implemented in many developed countries such as European, American and Asian countries for many years, but few attention has been paid to it in the Arab world especially in Egypt.

Moreover, this research introduced a model that integrates the strategic management process along with its three main phases (formulation, implementation and evaluation) with one of the most popular communication models for the purpose of continuous strategic improvement, through using the BSC strategy map as an important strategy communication channel in this integrated model.

6.2 Recommendations

This research recommends that the application of strategy mapping to MSA University, should be continued and improved, as it can help in measuring and managing the performance of this university as it relates directly to its chosen strategy through the strategy communication and evaluation phases. Moreover it can help in implementing its chosen strategy effectively as more attention is always paid to MSA strategy development or formulation than strategy implementation and improvement.

Thus, the researcher recommends MSA leaders and managers to:

(A) Use MSA Strategy Maps as common visual language for Communication, through:

1. Doing a better job at communicating each strategy to the "doers" of MSA to help make it real and tangible at their levels.
2. Linking each strategy formulation phase with MSA strategy implementation phase through the use of cause-and-effect diagrams in depicting and visualizing each strategy (i.e. strategy communication).

(B) Use MSA Strategy Maps as common visual language for Improvement, through:

1. Linking MSA strategy implementation phase once more with its strategy formulation phase but in the opposite direction through the use of interdependent financial and non financial indicators for the purpose of strategy evaluation (i.e. strategy improvement).

2. closing the huge gap between MSA vision, mission and different strategies formulated at the top, and between the same strategies but implemented differently at lower levels down in MSA University, through building the bridge between these three initiatives: strategy implementation, employee empowerment and feedback for continuous improvement.
3. Ensuring that MSA balanced scorecard is linked to each MSA strategy, so that we can reach full alignment to the overall MSA vision and mission statements.

(C) Use this research model for communicating and improving each MSA formulated strategy, through integrating MSA strategic management system with its strategy communication process, for the purpose of continuously improving its newly implemented strategies (e.g. e-learning strategy and sustainable interdependent cross-cultural strategy).

6.3 Suggestions for further research

The researcher recommends further studies and researches to be conducted, in order to generalize and apply this research model to other private and public educational institutions, in addition to other business and industrial sectors.

Specifically, further studies can be developed, so that this research model can be effectively and efficiently assessed when applied to:

1. Different Egyptian sectors, especially the educational sector in Egypt and the Ministry of Education.
2. Other public and private universities, not only in Egypt but also in different countries in the Arab world.
3. Other Business and Industrial sectors, not only in Egypt but also in the Middle East and Arab countries.

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Appendices

Appendix (A)
Research Questionnaire

Questionnaire

1. Strategy Formulation

Rate your answer on a scale from 5 “strongly agree”, 4 ”agree”, 3 ”neutral”, 2 “don’t agree” to 1 “strongly don’t agree”:					
1.1 Vision Statement					
Has MSA articulated a vision for the university?	1	2	3	4	5
When was it last updated? (5-if in the last year, 4 -if in the last 2 years, etc.)	1	2	3	4	5
Do you really understand this vision?	1	2	3	4	5
Is the vision statement relevant to MSA’s activities?	1	2	3	4	5
1.2 Mission Statement					
Has MSA developed a mission statement?	1	2	3	4	5
When was it last updated? (5 -if in the last year, 4 -if in the last 2 years, etc.)	1	2	3	4	5
Do you feel that MSA current mission statement is compatible with the activities being carried on by MSA?	1	2	3	4	5
How would you rate participation in developing the mission statement by the: (5 -very involved 1 -not involved at all)					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
1.3 Understanding Values					
Has MSA defined a set of value statements?	1	2	3	4	5
When were they last updated? (5 -if in the last year, 4 -if in the last 2 years, etc.)	1	2	3	4	5
How would you rate the understanding of MSA’s value statements (or values if formal statements have not been developed) by the:					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
1.4 Strengths, Weaknesses, Opportunities and Threats Analysis (SWOT)					
Has MSA conducted a SWOT analysis?	1	2	3	4	5
How would you rate the competencies of MSA to conduct a SWOT analysis?	1	2	3	4	5
How would you rate the priority that MSA places on the SWOT analysis process?	1	2	3	4	5
How would you rate the importance of the SWOT analysis process to the effective operation of MSA?	1	2	3	4	5
Is a SWOT analysis employed when dealing with significant issues outside MSA strategic planning? (Score 5 for regularly - 1 for never)	1	2	3	4	5
Has MSA conducted other types of metrics? (5 -if YES 1 -if NO) Please specify:	1	2	3	4	5
1.5 Establish Long Term Objectives					
Has MSA established long term objectives?	1	2	3	4	5
How important is it to establish long-term objectives for MSA? (5 -very important 1 -not important at all)	1	2	3	4	5
1.6 Generate Strategies					
Rate MSA’s success/practice of generating strategies to deal with issues.	1	2	3	4	5
How important is it to generate strategies to deal with issues for MSA? (5 -very important 1 -not important at all)	1	2	3	4	5
The more the understanding of strategy formulation elements, the better the strategy can be described through strategy mapping as a set of logical cause and effect relationships between different strategy activities.	1	2	3	4	5

2. Strategy Communication

Rate your answer on a scale from 5 “strongly agree”, 4 ”agree”, 3 ”neutral”, 2 “don’t agree” to 1 “strongly don’t agree”:					
2.1 The Strategy Description:					
My leader identifies the main Target Group(s)	1	2	3	4	5
My leader identifies the long-term desired outcome	1	2	3	4	5
My leader provides general description of the services, activities, programs and actions (including collaborative development and systems change) being taken to achieve desired results. (5 -if YES, 4 -if one item is missing,.....etc)	1	2	3	4	5
In addition, a logic model or strategy diagram has been developed. (5 -if YES 1 -if NO)	1	2	3	4	5
My leader always communicates with each subordinate each task needs to be implemented.	1	2	3	4	5
My leader is able to accept sincere criticism from subordinates for the good of MSA.	1	2	3	4	5
Failure in implementing MSA’s objectives because of weakness in strategy communication and description.	1	2	3	4	5
My leader uses correct communication channel in giving instructions task to me.	1	2	3	4	5
My leader communicates with each subordinate regarding how his/her task contributes in achieving MSA overall objectives.	1	2	3	4	5
My leader gives very clear instructions and description to my own task.	1	2	3	4	5
My leader practices an open communication and is willing to share information fully.	1	2	3	4	5
2.2 The Strategy Understanding And Interpretation					
Effective Leadership communication practices strengthen my understanding towards MSA strategy.	1	2	3	4	5
Problems in communication practices with my leader will disrupt my understanding and interpretation of MSA strategy.	1	2	3	4	5
Communicating with my leader makes me feel as an important part of MSA.	1	2	3	4	5
I don't have any problems in my communication practices with my leader.	1	2	3	4	5
I don't have any problems in MSA strategy understanding and interpretation.	1	2	3	4	5
My colleagues and I have the same understanding and interpretation for MSA strategy	1	2	3	4	5
There is a huge gap between MSA strategy formulation and MSA strategy implementation.	1	2	3	4	5
My leader needs to change his current practices of giving instructions.	1	2	3	4	5
My leader practices a two way communication process.	1	2	3	4	5
I clearly understand the four MSA BSC perspectives that enhance MSA overall success and improvement.	1	2	3	4	5
I clearly understand MSA overall strategy.	1	2	3	4	5
I know MSA customers and competitors.	1	2	3	4	5
I know MSA core capabilities & what differentiates MSA from other competitors	1	2	3	4	5
I was encouraged to align my operational plans with MSA overall strategy	1	2	3	4	5
MSA most critical internal processes support MSA overall strategy	1	2	3	4	5
The relationship between different perspectives of MSA strategy map is logical and facilitate effective job execution	1	2	3	4	5
The method/technique of communication from my leader is very effective.	1	2	3	4	5
The better the MSA strategy can be described as a set of logical cause and effect relationships between different strategy activities, the more unified understanding and clear interpretation of that strategy among all levels.	1	2	3	4	5

3. Strategy Implementation

Rate your answer on a scale from 5 “strongly agree”, 4 ”agree”, 3 ”neutral”, 2 “don’t agree” to 1 “strongly don’t agree”:					
3.1 Policy Support					
Does MSA maintain a policy manual? (5 -if YES 1 -if NO)	1	2	3	4	5
Are MSA policies updated on a regular basis? (5 -if in the last year, 4 -if in the last 2 years, etc.)	1	2	3	4	5
Rate the relevance of MSA’s policies to current MSA activities? (5 -very relevant 1 -not relevant at all)	1	2	3	4	5
Rate the understanding and support to formal policy development and implementation by the:					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
3.2 Financial Capacity					
Rate MSA’s financial capacity to implement strategies.	1	2	3	4	5
Rate commitment to provide financial resources to support the implementation of MSA strategic initiatives. (5 -very committed 1 -not committed at all) by the:					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
3.3 Motivation and Ownership					
Rate the motivation to maintain and support the implementation of strategic initiatives by the:					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
Rate the organizational citizenship created to implement strategic initiatives by the:					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
3.4 Leaders Support					
Rate your leader’s commitment and support to the implementation of strategic initiatives.	1	2	3	4	5
My leader always provides empowerment for me in completing any given task.	1	2	3	4	5
The leadership communication style of my leader supports teamwork and high involvement among the members.	1	2	3	4	5
3.5 Organizational Structure					
Rate how appropriate the current structure of MSA is to support the implementation of strategic initiatives. (5 -very appropriate 1 -not appropriate at all)	1	2	3	4	5
3.6 Open to Change					
Rate MSA’s readiness for organizational change. (5 -very prepared 1 -not prepared at all)	1	2	3	4	5
Rate the willingness to accept and implement change (5 -very open 1 -not open at all) by the:					
Employees	1	2	3	4	5
Leaders	1	2	3	4	5
3.7 Human Resources					
Rate the human resource capability to manage and implement a change process or new strategic direction by the:					

Employees	1	2	3	4	5
Leaders	1	2	3	4	5
Rate the competencies of MSA staff to manage and implement strategic initiatives	1	2	3	4	5
3.8 Others					
Does MSA make strategic decisions (implementation action plans) based upon your understanding and interpretation of strategic formulation elements? (5–Much /1-Little)	1	2	3	4	5
Does MSA clearly assign lead responsibility for action plan implementation to a person or, alternately, to a team? (5 – Much / 1 – Little)	1	2	3	4	5
Are sufficient resources allocated for implementation? (5 – Much / 1 – Little)	1	2	3	4	5
The less the differences in individuals' interpretation of MSA's strategy, the easier and more effective strategy implementation will be.(5-strongly agree/ 1- strongly don't agree)	1	2	3	4	5
Please asses MSA level of strategy implementation (5 – High / 1 – Low)	1	2	3	4	5
Rate the Obstacles to strategy execution/ implementation					
Inability to manage change effectively or to overcome internal resistance to change	1	2	3	4	5
Trying to execute a strategy that conflicts with the existing MSA structure	1	2	3	4	5
Poor or inadequate information sharing between individuals or faculties responsible for strategy execution	1	2	3	4	5
Unclear communication of responsibility and/or accountability for execution decisions or actions	1	2	3	4	5
Poor or vague strategy	1	2	3	4	5
Lack of feelings of "ownership" of a strategy or execution plans among key employees	1	2	3	4	5
Not having guidelines or a model to guide strategy- execution efforts	1	2	3	4	5
Lack of understanding of the role of organizational structure and design in the execution process	1	2	3	4	5
Inability to generate common agreement on critical execution steps or actions	1	2	3	4	5
Lack of incentives or inappropriate incentives to support execution objectives	1	2	3	4	5
Insufficient financial resources to execute the strategy	1	2	3	4	5
Lack of upper-management support of strategy execution	1	2	3	4	5

4. Strategy Evaluation

Rate your answer on a scale from 5 “strongly agree”, 4 ”agree”, 3 ”neutral”, 2 “don't agree” to 1 “strongly don't agree”:					
4.1 Measure Performance					
Has MSA developed a set of key performance indicators or some other form of accountability to track the success of strategic initiatives? (5 -for defined key performance indicators 1 -no indictors defined)	1	2	3	4	5
Does MSA set clearly defined and measurable performance standards for each plan element? (5 – Much / 1 – Little)	1	2	3	4	5
Does MSA develop an organized system for monitoring how well those performance standards were met? (5 – Much / 1 – Little)	1	2	3	4	5
Does MSA review monitoring data regularly, and revise strategic decisions as appropriate? (5 – Much / 1 – Little)	1	2	3	4	5
Rate MSA's ongoing evaluation practices as it relates to its strategic initiatives. (5 - doing a great job on a regular basis 1 -no evaluation occurs)	1	2	3	4	5
The leader and I discussed my performance in work.	1	2	3	4	5

4.2 Identify When Corrective Action is Necessary					
Rate MSA's success at identifying corrective action when strategic initiatives are failing or could be improved.	1	2	3	4	5
My leader encourages me to report any faults on the task which I do.	1	2	3	4	5
Rate MSA's response time, after they acknowledge that a strategic initiative is failing.	1	2	3	4	5
4.3 Assess Impact of Change/Participation					
Rate MSA's effectiveness at evaluating the impact of changes subsequent to initial strategy formulation.	1	2	3	4	5
Rate the level of participation in strategy evaluation (5 -very involved 1 -not involved at all) by the: Employees Leaders	1 1	2 2	3 3	4 4	5 5
4.4 Moving Beyond Evaluation					
Rate the attention paid to adjusting or developing new strategies subsequent to evaluation of the initial strategies by the: Employees Leaders	1 1	2 2	3 3	4 4	5 5
Are individuals responsible for strategic formulation and implementation rewarded for successful performance? (5 – Much / 1 – Little)	1	2	3	4	5
The better the financial and non financial performance indicators can be linked into measurable cause and effect framework through strategy mapping, the easier the strategy can be evaluated.	1	2	3	4	5

5. Strategy Improvement

You are aware of the perceptions your leader has about MSA culture and whether it is supportive in the areas of innovation and creativity.	1	2	3	4	5
You are aware of the internal and external environments that may pose future growth opportunities or threats to MSA strategy improvement.	1	2	3	4	5
Shared awareness: Do you feel that your leadership team shares the same level of awareness as you do in both the areas mentioned above?	1	2	3	4	5
Individual growth: MSA encourages individual growth through systematic training and development programs.	1	2	3	4	5
People involvement: Individuals at all levels of MSA are appropriately involved in the development and improvement of organizational goals.	1	2	3	4	5
Personal fulfillment: Employees see a personal opportunity to satisfy their own needs by contributing to the achievement and improvement of Faculty and MSA goals.	1	2	3	4	5
My leader shares with me MSA overall mission and vision and this will encourage me to improve MSA.	1	2	3	4	5
The easier the MSA strategy can be evaluated from different perspectives, the more the chosen strategy can be improved.	1	2	3	4	5