Strategic Planning in Higher Education, a Need for Innovative Model

Mohammed Ahmed Hassanien[1,2*]

[1]*Assessment Centre, Department of Medical Education, Fakeeh College for Medical Sciences (FCMS), Jeddah, Saudi Arabia.*
[2]*Department of Medical Biochemistry, College of Medicine, Tanta University, Tanta, Egypt.*

Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

Review Article

ABSTRACT

Recent years have brought enormous changes in all aspects of life, and universities all over the world have been confronted by dramatic changes in their external and internal environments such as decreasing financial support, rapid technological advances, changing demographics and outdated academic programs. Therefore, many universities have engaged in strategic planning to "make beneficial, strategic changes … to adapt to the rapidly shifting environment".

The challenges which higher education institutions are facing nowadays raise the high demands to develop a new and innovative model for strategic analysis and planning that aims to help them to cope with these enormous challenges and to ensure their sustainability. Some of the Strategic models which suitable for business could be modified to fit the purpose of higher education institutions. One of these models is the one developed by Johnson et al. [1] that is based on the exploring strategy model developed and has three elements namely, Strategic position, Strategic choices and strategy in action.

The aim of this review, which has two parts, in its first part is to review strategy, its definition, models and its new trends. The second part of this review is mainly related to strategic planning in higher education institutions, the difference between it and business, the commonly used models in higher education and the need for change. The last part of the review includes a proposed model

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Corresponding author: E-mail: mohammedhassanien700@yahoo.com;

for strategic planning in higher education which is modified from Jonson's model Keeping in mind the difference in context between business and governmental higher education organization. Also, some recommendations for improving the strategic planning process were included in the last part of this review.

Keywords: Strategic planning; higher education; model.

1. STRATEGY AND STRATEGIC PLANNING, LITERATURE REVIEW

1.1 Definition of Strategy and What is Behind the Definition

The history of strategy began in the military. Webster's New World Dictionary defines strategy as "the science of planning and directing large-scale military operations, of manoeuvring forces into the most advantageous position prior to actual engagement with the enemy" [2]. In business and management, our understanding of strategy has been changed, and authors and theorists have provided a variety of different definitions for strategy. Each definition could be used as a conceptual framework for developing a strategy model through which strategy could be developed, implemented and maintained. Chandler (1963) defines strategy in terms of goals and objectives through which a course of action can be developed to achieve those goals and by allocating the required resources. According to Mintzberg [3], strategy is defined in terms of its approach, which may be plan, ploy, pattern, position or perspective. One or more of these approaches could be integrated into Chandler's definition for developing a strategy mode. Porter [4] defines strategy according to the competitive position of an organization and the degree to which it wants to be different. This definition is actually limited to one aspect of strategy and couldn't stand alone with regard to the development of a full strategy model. However, this concept is highly crucial, as it entails the relationship with competitors that could affect organization sustainability and even existence in the market. Porter's definition could be considered a part of Mintzberg's definition as they both consider strategy as a ploy or part of a plan that may be a competitive manoeuvre – establishing a competitive brand, building barriers to entry etc. Two other definitions for strategy were developed by Johnson et al. [5,1]. The first one of these is comprehensive and can stand alone as a conceptual framework, like that of Chandler [6]. Johnson et al. [5] define strategy in terms of scope, direction, duration, advantages, change and stakeholders expecta-tions. It appears from this definition and its non-linear aspect that nobody can expect which component comes first and this is actually one of the characteristic features of the model developed based on this definition. Finally, the last definition of strategy by Johnson et al. [1] is "the long-term direction of an organization". This very short telegraphic definition needs to be implemented by expert managers and leaders so they do not miss any of its components, such as duration, direction and keeping in mind all the other issues related to organization either internally or externally.

1.2 From Theory to Practice

As mentioned above, scholars explain strategy with different definitions. Some of these definitions could be used alone as a conceptual framework for developing strategic models like that of Chandler [6] and Johnson et al. [5]. Others, like Mintzberg [3], could be used as a strategy development approach according to different situations and others still, like Porter [4] and Johnson et al. [1], could be part of other definitions used to build a full conceptual framework. For any organization in the process of developing a strategy, any of these definitions should be adopted as a conceptual framework upon which to develop a strategy model. According to Johnson et al. [5], organizations should have a strategy with a long-term duration that directs the scope of organizations' activities to gain advantages over competitors, keeping in mind the change in the corporate environment. To implement an organization's strategy, resources and competencies (capabilities) need to be built with full respect of the organization's values and stakeholders' expectations.

1.3 Strategy Models

Strategy models can be developed based on wide variety of different strategy definitions. These models are used by organizations for developing, implementing and maintaining their strategy for achieving their goals and objectives.

Only two main categories of strategic models exist: linear or non-linear.

Almost all strategic planning models must pass through three stages: analysing the situation; scanning the internal and external environments (elite planning, which is usually at the top of the organization); and deciding on a course of action. These three stages result in a formal document, which is the strategic plan of the organization. This is followed by another separate, discrete process, which is the implementation stage of the written plan [7]. This could be considered the basic and traditional linear model of strategic planning, and this model belongs to the Design School's view of strategy.

Another strategy model was developed by Johnson et al. [5] that is a more detailed and sophisticated exploring strategy model. This model is based on the interconnected nature of strategic issues. This three-element model emphasizes the non-linear aspect of strategic management through interlinks and feedback on each of the elements. Those elements comprise understanding the strategic position, making the strategic choices and finally turning the strategy into action. The most important feature of this model is its flexible nature as there is no obligation to start with any of these elements. At the same time, feedback is flexible and you can return to any element after finishing it for revision and even make the required modifications. The nature of this model opens the door for other strategic models to follow.

By the same way, we can propose another strategy model based on Chandler's definition of strategy. The following components of strategy should be considered:

1- Determining the duration of the strategy.
2- Goals and objectives that are included in the strategy's statement, which also includes mission, vision, scope and values, and advantages.
3- Organizations analyse their complex relationships, internally and externally.
4- Course of Action. This course is the detailed plan for strategy formulation and implementation.
5- Resources that are part of the strategy implementation include human and physical resources with the required structure and system for successful implementation.

Fig. 1. The exploring corporate strategy model [5]

1.4 Using Balanced Scorecards (BSC) for Strategy Development and Implementation

Balanced scorecards (BSC) are one of innovative concepts that could be used for strategy development and monitoring implementation. The balanced scorecard is a concept introduced by Kaplan and Norton in the article entitled "The Balanced Scorecard Measures that Drive Performance", published in the *Harvard Business Review* in 1992 [8]. According to the authors, the balanced scorecard is defined as "a set of measures that gives top managers a fast but comprehensive view of the business. include financial measures that tell the results of actions already taken… complements the financial measures with operational measures on customer satisfaction, internal processes, and the organization's innovation and improvement activities – operational measures that are drivers of future financial performance" [8]. According to this concept, data provided by PESTEL analysis and that of strategic capability analysis could be interpreted and utilized in building a model from four perspectives, that financial, customer, internal processes and learning growth. The strategic process using BSC begin in a top down way by defining financial objectives of the business or identifying the target. This step could be considered as one of the most important key performance indicators that could be used for strategy evaluation. Second step is defining customers and their needs and expectations. The internal process is related to product design, brand and market development, sales, service, operations and logistics – define what the organisation will do.

Finally, learning growth covers organisational infrastructure, skills and knowledge of employees, technology, climate. For using BSC, Strategy is usually built around themes and then each theme is analysed against the four perspectives of BSC. According to this discussion, it appears that BSC is an innovative model that could be used for developing strategy and monitoring implementation and even developing Key performance indicator for the purpose of evaluation.

2. STRATEGIC PROCESS IN HIGHER EDUCATION

Recent years have brought enormous changes in all aspects of life, and universities all over the world have been confronted by dramatic changes in their external and internal environments such as decreasing financial support, rapid technological advances, changing demographics and outdated academic programs. Therefore, many universities have engaged in strategic planning as a means to "make beneficial, strategic changes … to adapt to the rapidly shifting environment" [10].

The strategic process in university is quite different from that in business. In addition, the models used for strategic planning in universities are different to some extent from those used in business. In other words, universities adjust the "Business Strategy Model" to higher education. Some models for strategic analysis, like SWOT analysis, could be used successfully in both. On the other hand, some models, like the BCG Matrix, are unique for business strategic analysis.
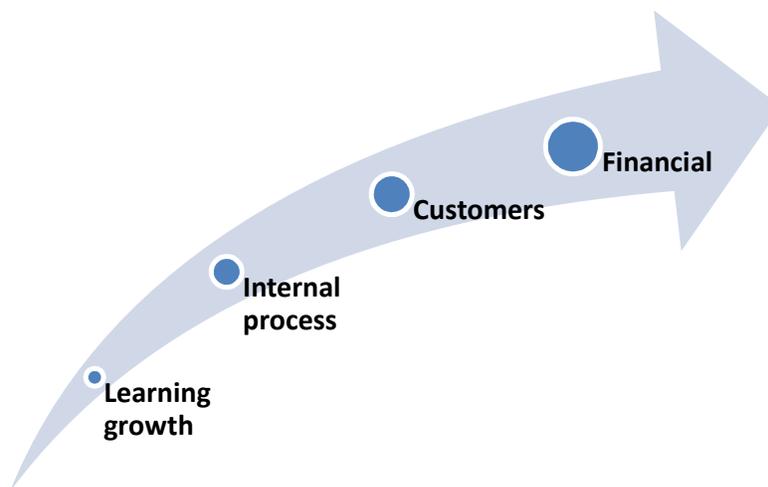

Fig. 2. Four perspectives of balanced scorecards [9]

The main differences between strategic processes in business and higher education institutions could be summarized on the following points:

1- **Timeframe:** The timeframe for business strategy is usually two to three years, while that of universities and colleges is usually five years.
2- **Sequence of events:** Business strategy starts with an analysis of the internal and external environments. This is followed by planning and finally implementation of the documented plan. In higher education, strategy starts by writing the mission, vision and values, then analysing the internal and external environments, and finally writing the strategic goals and action plan.
3- **Elite planning:** This is a unique feature of business, and planning is generally a top-down process. However, in higher education, all stakeholders participated in the strategic process from the beginning. This could be explained by the difference between business and higher education from the aspect of centralized or command authority in business, which is not very strong in university (especially in dealing with staff members).
4- **Value system:** In higher education, each institution has its own unique educational guiding principles, which are quite different from the bottom line approach of businesses. This value system and guidelines have a strong effect on the strategic process and the steps followed in strategic process.
5- **Stakeholders:** In higher education, there is no specific stakeholders – students, employers, and the whole community are stakeholders. This is in contrast to business, which has specific customers according to its field. This was reflected in the difficulty of writing and agreeing upon mission and vision, as it needs all stakeholders to participate and agree on their formulation.
6- **Change:** Change is a unique feature in business due to many factors either internal or external. On the other hand, this is not the case in higher education in which preservation is most preferable by nature. However, emergent strategies to deal with change should be in place in all universities or colleges to deal with any emergent changes.

7- **Reward system:** In business, rewards are usually related to targets, achieving more benefits and customer satisfaction. In college, rewards are linked to teaching, research and community services, for each a system of key performance indicators should be in place to monitor the progress in these fields.
8- **A "loosely coupled system":** Higher education institution could be considered as a multi-unit system consisting of many academic departments, they are working together for mutual benefit and the benefit of the whole college. All are working in alignment with the college's mission and vision, and the college as a whole is working in alignment with the university's strategy. However, with this framework of alignment, a certain degree of difference is present due to the different nature of each department.

2.1 Description of Strategic Process in Higher Education

The process of strategic planning in higher education universities and colleges usually proceeded according to the following model:

1- **Nominating the strategic planning steering committee (SPSC):** The strategic planning committee was nominated. The chairperson usually one of the experts in strategic planning and its members are qualified in the field and from different departments in the college. The committee has at least one member representing external stakeholders and a member from the financial department in the college.
2- **Formulating the college's mission and vision:** Both should be formulated in a clear manner based on the university and college's philosophy and in consultation with the college's departments. All stakeholders, both internal and external should participate in mission and vision formulation.
3- **Environmental scan and SWOT analysis:** Both external and internal environments must be analysed for areas of strengths, weaknesses, opportunities and threats. The Strategic planning Steering Committee also evaluates the difference between the current situation and the desired future according to the

mission, and this to be done through gap analysis.

4- **Benchmarking:** Universities/ colleges usually select one of the international comparable higher education institution to compare its performance with through key performance indicators.

5- **Strategic programming:** Following the four above-mentioned steps, the committee addressed the strategic issues and set strategic goals and an action plan to achieve the desired mission and vision and fill the gap diagnosed after the SWOT analysis. An operational plan will develop for implementing strategy. The operational plan includes certain number of projects, for each project a detailed road map will be deigned.

3. STRATEGIC ANALYSIS MODELS FOR HIGHER EDUCATION

There are many Strategic analysis models used for strategic analysis which used in business and corporate. They include and not limited to: PESTEL Analysis, Porter's Five Forces Model [4]. The Boston Matrix (BCG Matrix) and SWOT analysis. Among those models, only PESTEL analysis and SWOT could fit the purpose of strategic analysis in higher education institutions.

3.1 PESTEL Analysis

The PESTEL (political, economic, socio-cultural, technological, environmental and legal) analysis has different names in the literature, such as PEST [11] and STEPE [12]. The original form of PESTEL was first conceived by Aguilar as ETPS (economic, technical, political and social). This

was subsequently reorganized as STEP for the Arnold Brown Institute of Life Insurance for use in the strategic evaluation of trends. It was later modified to address macro analysis of the external environment or scanning for environmental change, and was defined as STEPE. In the 1980s, the legal dimension was added to this approach [12] Apart from being a technique for strategic analysis, the PESTEL analysis began to be used in different fields [12,13,14]. The aim of the PESTEL analysis is to study the macro environment of organizations to identify how future trends in the political, economic, social, technological, environmental and legal environments might have an effect on organizations. It appears from this discussion that the PESTEL analysis could be the first tool to be used to collect data on future opportunities or threats faced by organizations. These data could serve many purposes in the process of strategic planning as will be described later [15,16].

3.2 SWOT Analysis

Data collected from external environment analysis and that from organizational knowledge that relates to strategic capabilities, also data from value chain and value network analysis, activity mapping and benchmarking, needs to be interpreted after being integrated together It appears that SWOT analysis is the tool that could collect all these data to identify the organization's internal strengths and weaknesses, and threats and opportunities of the external environment, and consequentially identifying the company's distinctive competencies and key success factors. In other words SWOT analysis could relate environmental
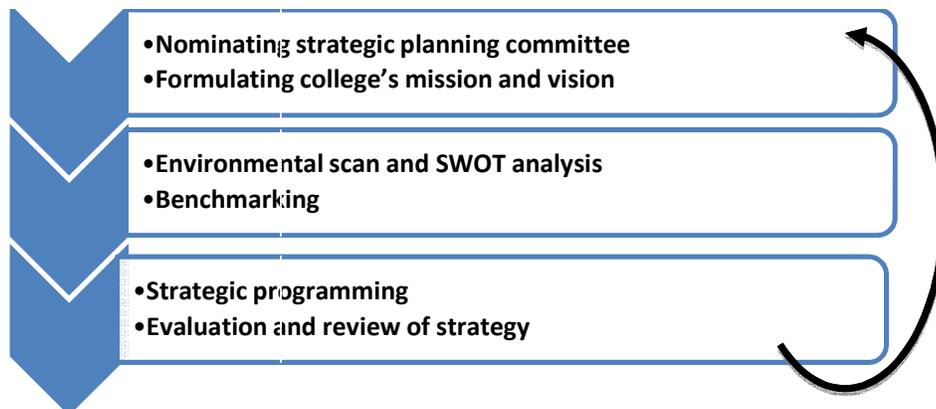
- •Nominating strategic planning committee
- •Formulating college's mission and vision
- •Environmental scan and SWOT analysis
- •Benchmarking
- •Strategic programming
- •Evaluation and review of strategy

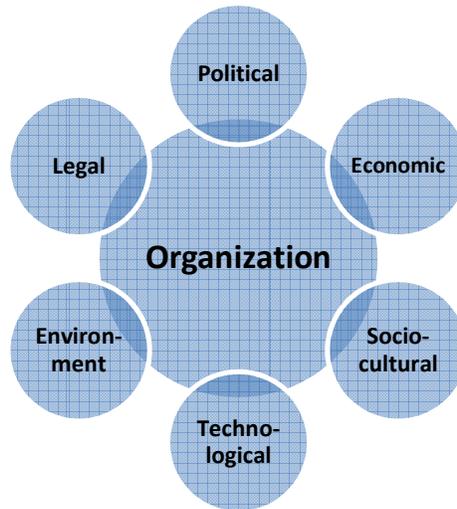**Fig. 3. Strategic Process in higher education**
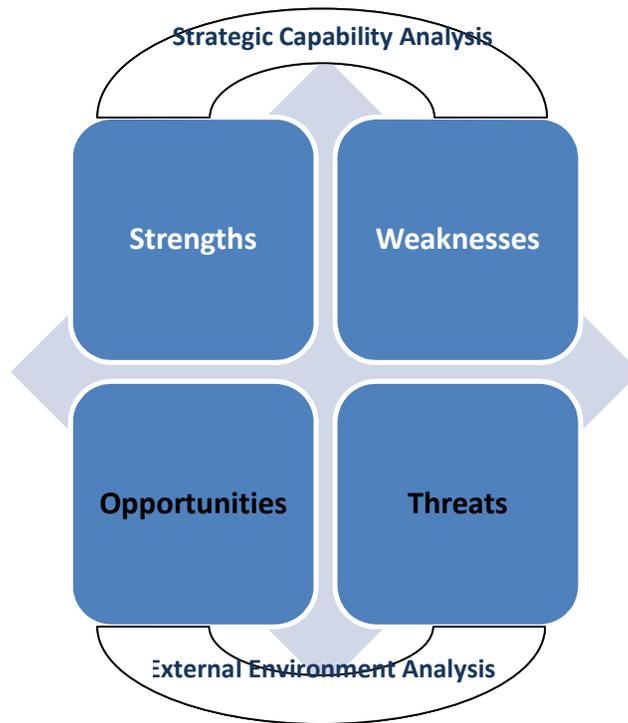
Fig. 4. PESTEL analysis

Fig. 5. SWOT analysis

effects with strategic capability of organization compared with competitors. These, along with considerations of organizational culture, lead to creation, evaluation, and choice of strategy, following this way organization strategy that ensure the best alignment between the external environment and internal situation, could be developed [5,17].

3.3 Proposed Model for Strategic Analysing and Planning in Higher Education

The challenges which higher education institutions are facing nowadays, raise the high demands of to develop a new and innovative model for strategic analysis and planning that

aims to help them to cope with these enormous challenges and to ensure their sustainability. The author develops a model for strategic analysis that is based on the exploring strategy model developed by Johnson et al. [1] with its three elements namely, Strategic position, Strategic choices and strategy in action. Keeping in mind the difference in context between business and governmental higher education organization, Strategy could be analysed against those fourteen questions and summarized in the following Table 1.

Table 1. Proposed model for strategic analysing and planning in higher education

Question	Answer	Activities / evidences	Who is involved?	Comments and How to be improved?
1- Strategic Position				
What are the environmental opportunities and threats?	**Opportunities:** **Threats:**			
What are the University/college strength and weakness?				
What is the basic purpose of the University/College?				
How does culture fit the strategy?				
2- Strategic Choice				
How should business units compete?				
Which fund raising activities to include in a portfolio?			None	None
Where should the University/College compete internationally?				
Is the University/College innovating appropriately?				
Should the University/College make partnership with other higher education institution, ally or go it alone?				
Are Strategies suitable, acceptable and feasible?				
3- Strategy in action				
What kind of strategy-making process is needed?				
What are the required University/College structures and systems?				
How should the University/College manage necessary changes?				
Who should do what in the strategy process?				

Table 2. Assessment of Stakeholders' engagement in the strategic process

Strategic process step	Internal stakeholders				External stakeholders			
	SPC*	Students	Staff	Admin*	Parents	Hospitals	Ministries	Community
Formulating the mission and vision								
SWOT analysis								
Strategic programming								
Implementation								
Evaluation								
Revision								

SPC: Strategic Planning Committee

4. ASSESSMENT OF STAKEHOLDERS' ENGAGEMENT IN THE STRATEGIC PROCESS

A template was design to evaluate stakeholders' Engagement in the Strategic Process, both internal and external stakeholders are included in this template. A Likert's scale of five point from 0 to 4 is used for the evaluation process in which 0 means, no participation at all and 4 means full participation. This numerical scale will help for statistical analysis of the data obtained from than one expert.

In cases of college of Medicine for example, stakeholders are:

1- **Internal stakeholders:** Students, staff members, administration and Strategic planning committee.
2- **External stakeholders:** Parents of students, governmental and private hospitals, the Ministry of Higher Education, the Ministry of Health and even the whole community.

The following Table 2 summarize Assessment of Stakeholders' Engagement in the Strategic Process.

5. RECOMMENDATIONS TO IMPROVE THE STRATEGIC PROCESS IN HIGHER EDUCATION

The following are some recent approaches to improve the strategic process in higher education:

5.1 Using the Good to Great Approach

I have read many recent business models and some diagnostic tools. I liked the Good to Great Diagnostic Tool developed by Collins [18] as it

could be used to diagnose some problems in our college. The approach itself could be used as an umbrella not only to improve our strategic process but also to improve the whole working environment in the college through its four stages:

a. **Disciplined People**

  i. Level 5 Leadership
  ii. First Who, Then What

b. **Disciplined Thought**

  i. Confront the Brutal Facts
  ii. The Hedgehog Concept

c. **Disciplined Action**

  i. Culture of Discipline
  ii. The Flywheel

d. **Building Greatness To Last**

  i. Clock Building, not Time Telling
  ii. Preserve the Core / Stimulate Progress

Each of these stages needs to be analysed through a brainstorming session with the concerned and decision-making people in the college to convert them into an action plan and process to be followed. This is to be done after using the diagnostic tool to discover which areas need more attention and should be started first. A strict system of reward and punishment should be in place to ensure and maintain a culture of discipline.

5.2 Developing Strategy Using the Balanced Scorecard (BSC)

Following the good to great approach is part of the plan for improving the strategic process, but it

is not enough alone. Using the Balanced Scorecard is the best solution for the development of an academic dashboard for the perspectives of learning and growth, internal processes, customers and finance.

By using the BSC, an academic dashboard could be developed from four perspectives namely, financial, customer, internal processes and learning growth [9] Each perspective will be subdivided into subareas, which collectively cover all fields of that perspective. The four perspectives and their subareas will be interconnected in a causal relationship, considering the financial perspective as a result indicator driven finally by the other three operating indicators. By using this model, our college could focus its strategic issues and investments on these aspects, which will also connect to our mission and vision. In other words, the mission and vision will be translated into performance indicators. These will be effectively communicated to all employees in a manner that motivates them to implement the strategy of their business units or departments. This will be done in the presence of a good reward system that distinguishes employees and units according to target achievement measures through performance indicators.

5.3 Suggested Components of Balanced Score Card's Perspectives

1- Learning resources:

 a. Infrastructure and facilities
 b. Staff professionalism
 c. Policy system and procedures
 d. Organizational structure.

2- Internal process:

 a. Academic atmosphere
 b. Good governance
 c. Social responsibilities.
 d. Learning process
 e. Research

3- Customers:

 a. Learning quality
 b. Graduate competencies
 c. Learning Accessibility
 d. Mutual Benefits

4- Financial

 a. Funding

  i. Governmental

  ii. Society
  iii. Grants.

5.4 Developing a Strategic Process Evaluation Questionnaire

The last but not the least recommendation for improving strategic process, is to develop a strategic process evaluation questionnaire that covers the whole process. It should be validated by experts in the field, and filled in by internal and external stakeholders annually.

5.5 Developing Risk Management Plan

A risk management plan should be in place with the emphasis on managing and overcoming financial shortage; this could be done but not limited to developing external fund raising strategies through paid programs, consultation services….etc.

6. CONCLUSIONS

The challenges which higher education institutions are facing nowadays, raise the high demands to develop a new and innovative model for strategic analysis and planning that aims to help them to cope with these enormous challenges and to ensure their sustainability. A modified model which based on Johnson's model for strategic planning and analysis was described in this review and it could be applied in higher education institution. Any strategy model for universities should be consider three elements namely, Strategic position, Strategic choices and strategy in action. Certain actions should be taken also in consideration to improve the strategic process in higher education, like using the good to great approach, developing strategy using the Balanced Scorecard (BSC), Developing a strategic process evaluation questionnaire and Developing risk management plan.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Johnson G, Whittington R, Scholes K. Exploring strategy: Text and cases, 9th ed. Pearson Education Ltd: Harlow; 2011.
2. Guralnik D, (Ed.). Webster's New World Dictionary (2nd ed.). Cleveland, OH: Prentice Hall Press; 1986.

3. Mintzberg, H. The Rise and Fall of Strategic Planning. New York, NY: The Free Press; 1994.

4. Porter ME. Competitive advantage: Creating and sustaining superior performance. New York: The Free Press; 1985.

5. Johnson G, Whittington R, Scholes K. Exploring corporate strategy: Text and cases, 8th ed. Pearson Education Ltd: Harlow; 2008.

6. Chandler, Alfred Jr. Strategy and Structure: Chapters in the history of the American Industrial Enterprise. MIT; 1962.

7. Wall SJ, Wall SR. The evolution (not the death) of strategy. Organizational Dynamics. 1995;24(2):6. Autumn.

8. Kaplan RS, Norton DP. The balanced scorecard-measures that drive performance. Harvard Bussiness Review, January-February; 1992.

9. Wisniewski, Mik Dan Olafson, Snjolfur. Developing balanced scorecards in local authorities: A comparison of experience. International Journal of Productivity and Management. 2004;53:7.

10. Rowley DJ, Lujan HD, Dolence MG. Strategic change in colleges and Universities. San Francisco, CA: Jossey-Bass Publishers; 1997.

11. Dare C. The UK tour-operating industry: A competitive analysis. Journal of Vacation Marketing. 2006;6(4):357-367.

12. Richardson Jr. JV. The library and information economy in Turkmenistan. IFLA Journal. 2006;32(2):131-139.
Available:http://dx.doi.org/10.1177/0340035206066410

13. Katko TS. Road safety fatalities, Management, and Policy in Finland, 1970-2003. Public Works Management & Policy. 2006;11(2):126-138.
Available:http://dx.doi.org/10.1177/1087724X06294066

14. Shilei L, Yong W. Target-oriented obstacle analysis by PESTEL modeling of energy efficiency retrofit for existing residential buildings in China's northern heating region. Energy Policy. 2009;37:2098-2101.
Available:http://dx.doi.org/10.1016/j.enpol.2008.11.039

15. Dinçer Ö. Stratejik yönetim ve işletme politikası. Beta Yayınları, İstanbul; 2004.

16. Yüksel I. Developing a multi-criteria decision making model for PESTEL analysis. International Journal of Business and Management. 2012;7:24.

17. Andrews KR. The concept of corporate strategy. Homewood, IL.: Irwin Editions, 1971, 1980 and 1987.

18. Collins J. Good to great. Published by, Random House Business; 1st edition; 2001.
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