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REVIEW OF THE CONTEMPORARY APPROACHES & A CASE STUDY ON THE FORMULATING OF AN EFFECTIVE IT STRATEGY AT ALCOM (M) SDN BHD

BY

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ABSTRACT

The use of IT as a competitive driver has been well highlighted within the business world, but as the technology becomes more sophisticated and the business environment more complex there is a need to clearly understand the strategic importance of this competitive weapon to fully exploit its potential. One way in addressing this challenge would be through the understanding of the contemporary business models and frameworks available today and using these in formulating a successful IT Strategy. In doing so, the firm can ensure that its IT Strategy will be well inline with the firms overall business strategy to allow the firm to retains its competitive advantage.

This paper examines these business models and frameworks from the IT perspective and dwells on how this can help firms to formulate a successful IT Strategy that can allow them to remain competitive.

APPROVAL PAGE

TITLE OF PROJECT PAPER: REVIEW OF THE CONTEMPORARY APPROACHES & A CASE STUDY ON THE FORMULATING AN EFFECTIVE IT STRATEGY AT ALCOM

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DECLARATION

I hereby declare that this project paper is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by reference notes giving explicit references and a bibliography is appended

Date : 17^{th} April 2001

Signature: ....

Name : Kantilal Hansraj Patel

DEDICATIONS

To my family who provided me the support and understanding in pursuing this program and to God for his guidance.

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Introduction

In 1991, for the first time ever, companies in the US spent more money on computing and communications gear than the combined monies spent on industrial, mining, and farming and construction equipment. This spending pattern offers a hard proof that businesses has entered a new era and that the Industrial Era has given way to the Information Age. Further to this, looking back at the Fortune magazines first list in 1956 of America's 500 biggest companies, only 29 out of the 100 firms topping that first list could still be found in the top by the year 1992. This goes to show that size nor a good reputation is sufficient to guarantee continued success but a need to understand other environmental and technological factors are important in remaining ahead in the business world.

Hence the need to understand this new era and the technology that it brings is important for the survival of organizations as it is transforming the nature of products, processes, companies, industries, and even competition itself. Consequently, businesses must understand the broad effects and implications of this new technology and how it will and is creating a substantial and sustainable competitive advantage. With this understanding, businesses will be better able to compete successfully in the ever changing and challenging business environment. One such technological driver, that has been exploited by many successful firms has been IT or information technology.

In line with this, there have been numerous articles and books on the virtues and potential of IT in providing new source of advantage for the firms businesses. But as we enter the new millennium many are skeptical of the benefits of IT, as with the numbers of successors there are also equal numbers of failures. The key to the success of many have been due to their ability in aligning their business and IT strategy to provide a synergistic tool that can ensure the right business leverage to retain their competitiveness.

This thesis aims to look at how firms can attain this level of success and in the process, try to identify some of the possible problems and pitfalls that the firms could encounter when embarking on such an exercise. It will begin by examining and reviewing some of the business models and frameworks that have been widely publicized and used frequently to formulate the firm's business strategy. This business strategy will then be reviewed to identify how IT could potentially be used as a driver that can successfully leverage this business strategy to ensure the firms competitiveness. These findings which forms the firms IT strategy will then be examined from the perspective of its realization by understanding the firms current IT status and the gap identified when compared with its new IT strategy. In doing so numerous issues will be examined such as the realignment of the firms business processes, manpower, skill level required etc, to ensure that the IT strategy can be successfully implemented and fully exploited.

To relate these concepts with the real world, a case study in the form of a company in which the author works in will be examined using these tools and methodology. This will then provide a clearer understanding of the practicality of these contemporary approaches towards the formulation of an IT strategy and help identify issues that would need to be addressed by the firm when realizing these strategies. In order to achieve this, a comprehensive research on the firm's activities covering its business strategy, current IT philosophy, current IT status and its current IT strategies will be undertaken. In understanding the firms present state and its future business plans a new course can then be mapped and evaluated from the perspective of the role of IT in providing the tool required to achieve this goal. It's the intention of the author that this practical approach will be able to identify the future IT challenges (IT strategy) for the firm and also identify the right resources and organizational structure need to meet these challenges.

SECTION A

CONTEMPORARY APPROACHES IN FORMULATING IT STRATEGY

1.0: THE BUSINESS STRATEGY

Different firms use different methodologies to formulate and direct their strategic management activities. However, despite the differences in the details and the degree of formalization, the basic component of the model used in formulating this business strategy are very similar to that shown in Fig 1, that helps to clarify these important elements

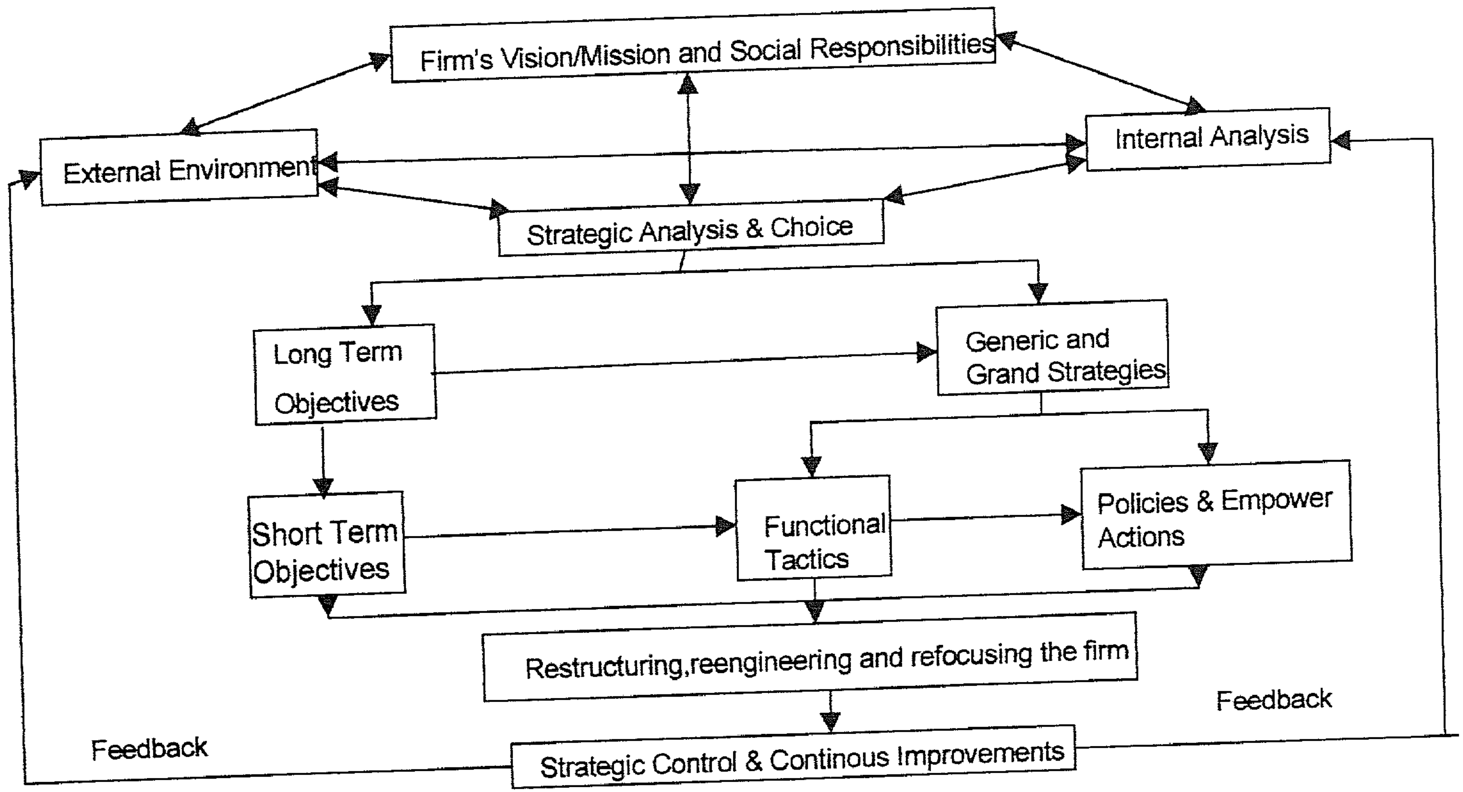
1.1: FIRMS MISSION

Many companies have realized the importance of a clearly defined mission statement as they usually help to create a clear framework for the businesses and a source of guidance for its employees. In addition to this, many of these statements have a common theme in that they are usually there to address a set of common business goals that would benefit the various stakeholders of the firm. As these statements are usually collectively drawn from key decision making staff it ensures a sense of commitment and ownership from all those in the firm. They are also important in that they are usually the starting points that can be used to integrate the firm's overall strategic planning efforts towards the formulation of the firms business strategy as shown in Fig 1.

1.2: EXTERNAL ENVIRONMENT

The external business environment consist of all the conditions and factors that are external to the firm and would affect the firm's strategic options and define its

Fig. 1 : The Business Strategy Model



competitive situations. These factors, which constitute the external environment, can be divided into 3 interrelated subcategories: -

Remote Environment these are basically factors that originate beyond the firm's immediate environment and are not industry specific. It includes the economic, social, political, technological and ecological factors within which the firm operates and which has an influence on the firm's business.

Industry Environment these factors are best explained by Michael E. Porter's [1] Five Forces model that shape's the firm's competitiveness in its chosen industry. These 5 forces are basically the: -

1. Threats of new entrants
2. Bargaining power of customers
3. Bargaining power of the suppliers
4. Threat of substitute for the product or service
5. Industry competitors

These forces and their combination will determine the state of the competition within the industry and the success of the firm. Therefore firms need to understand how these forces work in their industry and how they affect the firm in its particular situation, to allow them to establish a strategic agenda for their businesses.

Operating Environment – This is usually called the task or competitive environment and comprises of the factors in the competitive situations that affects the firm's success in acquiring needed resources or in successfully bringing its goods to the consumers. Some important factors within this environment are the firm's competitive position, composition of its customers, its reputation (among suppliers and creditors) and the ability to attract and retain capable employees. By understanding and analyzing the above operating environmental factors and comparing them with its competitors in the industry, the firm will be able to clearly understand what it needs to do to remain ahead of it competitors.

Despite the uncertainty and the dynamic nature of the external environment, an assessment process that narrows, even though it does not precisely define the future expectations, is of substantial value to the firm's strategic thinkers. By understanding the significance of this factors, the firm is then able to ensure that it is able to formulate an effective business strategy that will be able to address the right issues for success

1.3: INTERNAL STRATEGY

The internal strategy is done by analyzing the company's internal strength and weaknesses and matching them with the opportunities and threats faced by the business. The internal strength and weaknesses can be evaluated in terms of quality and quantity and covers the firm's financial, human and physical resources. It also accesses the strength and weaknesses of the firm's management and organizational structure. Finally, it contrasts the firm's past successes and traditional concerns with the firm's current capabilities in an attempt to identify the firm's future capabilities. There have been many articles and studies done in the 90's by Prahalad and Mintzberg [2,3] that have been aiming at emphasizing the importance of these internal capabilities that were called " Core Competencies". These core competencies are basically the internal capabilities or skills within the firm's business which when identified, nurtured and deployed throughout the firm will ensure the firm's lasting competitive advantage. But due to the lack of focus, as these studies have not given a specific level of analysis and are very general in nature, its application has been to some extent hampered. Consequently, another approach that focuses on the firm's resources or core competencies has been widely accepted and used. This process of analyzing the firm internal resources or competencies has been coined as the Resources Based View (RBV) and it allows the firm to make the core competency concept more focused and measurable. Central to the RBV's ability to do this is its notion of 3 basic types of resources that together create the building block for the firm's distinctive competencies. The 3 types of resources are usually categorized as tangible assets, intangible assets and the organizational capabilities. Once firms begin to analyze the its resources, they will be faced with the uphill task of identifying which of the resources represents strength or weaknesses i.e. which resources generate core competencies that are a source of the firm's sustainable competitive advantage. This is achieved in the RBV method by the use of key guidelines that help determine what constitutes valuable asset, capability,or competency. These guidelines that evaluates the value of the resources are :-

1. Competitive Superiority – How is this resource compared with the competitors in fulfilling the customer's needs? It will be of more value if it's able to fulfill more then the competitors.
2. Resource Scarcity – How scarce is the resource as the more scarce it is the more valuable it's going to be.
3. Inimitability – How easily is the resource imitated or copied? The more difficult it is the more valuable the resources is to the firm

4. Appropriability – How appropriate is the resource in creating wealth for the firm? If the resource is able to generate more profits than the other resources then it has more value placed on it.
5. Durability – How fast will the resources depreciate? Therefore resources that depreciate slowly will be more valuable then those that depreciate fast.
6. Substitutability – How easily can the resources be substituted ? The easier it is to substitute the resource the less valuable the resources would be to the firm.

No doubt the RBV method allows a systematic approach towards the assessment of the internal resources, its benefit will only be meaningful if this analysis is done from the perspective of the firm's competitive environment. The possessing of neither valuable resources nor the knowledge and understanding of the external environment on its own, will generate the right results unless they are applied in an effective manner within the firm. In order to realize these findings toward the formulation of an effective internal strategy, the firm needs to capitalize on its strengths and opportunities and minimize its threats and weaknesses, by using a conceptual framework called the SWOT (Strength, Weaknesses, Opportunities and Threats) analysis which complements the RBV and the analysis of the external factors. In this framework the opportunities, threats, strengths and the weaknesses of the firm are compared and matched to provide a strategic fit that will ensure the firm its competitive internal strategy. This conceptual framework allows the firm to create a quick overview of the firm's strategic position. It is based on the assumption that an effective strategy derives from a sound "fit" between the firm's internal resources (evaluated by the RBV to provide the strength and weaknesses) and its external situation (opportunity and threats). A good fit will maximize the firm's strength and opportunities and minimize its weaknesses and treats. No doubt the, opportunity and threats are fundamentally determined by the external forces, it must be emphasized that their understanding in totality with the firm's strength and weaknesses is important in determining the firms internal strategy. By undertaking this exercise the firm will be able to develop an internal strategy that will be able to overcome its internal weaknesses and leverage its strength to allow the firm to resist treats and exploit any business opportunities successfully. In addition to the use of RBV in evaluating the firm's strength and weaknesses, there are many that use other methods such as the Functional Approach and the Value Chain Analysis. In the Functional approach method the key internal factors found within the numerous functional areas of the firm, are in essence the basic capabilities, limitation and characteristic that determines the firms strengths and weaknesses. Therefore by reviewing the business processes and the key resources within the functional areas of the firm's operations, a more objective and internal analysis will be done to identify the key factors that will be able to enhance the strategic decision making process. The value chain on the other hand is a more structured way of examining the firm's business processes as a chain of activities. It divides the firm's overall activities into primary and secondary activities where the former involves those activities that actually handles the firm's services or product while the latter represents those that provide the infrastructure and support to the primary activities. As such logistics, production, marketing, are some common example of primary activities while functions such as accounting, HR, R&D etc are basically secondary activities.

By analyzing the whole value chain from upstream to the downstream activities, the firm would be able to better identify the activities that are critical and of value to the final customer's satisfaction and the market success. In identifying this the firm will be able to understand its internal strength and weaknesses and the effectiveness of the secondary activities in supporting these critical primary activities. Whether using the value chain method or an examination of the functional areas, or a combination of both, the firm needs to compare its status with some meaningful standards or benchmarks to allow them to evaluate its strengths and weaknesses.

1.4: STRATEGIC ANALYSIS & CHOICE

In undertaking the exercise above, the firm will be faced with numerous options and choices that it has to consider and evaluate. In its choice the firm should ensure that the strategy chosen should encompass both the firms long term objectives as well as its short-term goals and allow the firm to sustain or create a sustainable competitive advantage. In addition to this the strategies chosen by the firm needs to address the different levels within the firm – corporate, business and functional level to ensure its success. Porter – 1980 [1] identified 3 generic business strategies. The first, differentiation it refers to the actions and policies that can distinguish a firm's product or services in such a way that are perceived as unique. The second, cost leadership refers to the policies and actions that provides products or services with the lowest cost in terms of time, money and labor for the firm. Finally, the third, is based on being focused and refers to policies and actions that can provide products or services to a selected, niche market. Porter further observed that organizations use these generic strategies to control the 5 industry forces :-

- Rivalry among existing firms
- Bargaining power of the suppliers
- Threats of substitutes
- Threats from new entrants

These observations by Potter referred basically to businesses in general and not specifically to information systems.

2.0: THE IT STRATEGY

By understanding the above process of formulating the firms business strategy it becomes clear that for IT to provide some form of leverage i.e. strategic impact, it would basically need to address the issues that controls or influences the fit between the firms internal resources, capabilities and abilities, with the external environment.

2.1: STRATEGIC IMPACT OF IT

Bakopoulos and Treacy [4] in their research showed that IT could play a vital role in the effectiveness of a firms business strategy at 3 levels that is the internal, competitive and business portfolio level. Therefore by addressing the different issues at these 3 levels, the firm would be able to ensure that its IT strategy and its overall business strategy are well aligned in making a strategic impact on its business. The internal strategy in this case is similar to our earlier explanation and concerns the development of an effective and efficient organizational structure through a strategic fit that will then be able to achieve the firm's business goals and objectives. Competitive strategy on the other hand focuses on the firm's competitors and is