

Critical Success Factors (CSFs) in Strategic Planning for Information Systems

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ABSTRACT

Making a strategic planning for information systems effective is very crucial for any public or private body. The success of strategic planning for information systems is noticeable with regard to organization's accomplishment. Strategic planning for information systems should emphasize on success factors. In the present study, success in strategic planning for information systems is first defined. After that, different aspects of critical success factors are outlined and it is explained that how these factors can be implemented in order to develop systems, as a whole. Then, these factors are grouped into different categories. Next, five sources of critical success factors (i.e. industry, competitive strategy, environmental factors, temporal factors, and managerial position) are elucidated. The association between CSFs and strategic planning is determined followed by the relationship between CSFs and goals and measures. It is concluded that a complete understanding of critical success factors appears to be very essential for attaining success in short- and long-term outlooks of any initiative.

KEYWORDS: critical success factors, strategic planning, information systems, goals.

1- INTRODUCTION

Information systems in organizations are not only responsible for daily information exchange but also play important roles as a competitive advantage in business (Ward and Peppard, 2002; Ward and Griffiths, 2000). However, lack of a comprehensive control, lack of suitable prioritizing system, lack of correct understanding of beneficiaries' requirements, and determination of beneficiaries solely based on financial criteria have forced organizations to have strategic perspective in this regard (Hanafizadeh and Moayer, 2007). Strategic planning for information systems has been extensively studied during the past years. The notion of strategic planning for information systems was first proposed by Zani (1970). King (1978) outlined the relationship between information system strategies and business. After that, the terms critical success factors (CSFs) by Bullen and Rockart and value chain analysis by Porter and Millar were presented in strategic planning for information systems. This development prepared the basis for the work of Anderson and methodology of IBM Company. Main models and frameworks were proposed by Boynton and Zmud (1987), Henderson and Sifonis (1988), and Henderson and Venkatraman (1989) (as cited in Hanafizadeh and Moier, 2007).

Information systems are able to alter the work method of an organization. Consequently, when an organization invests on construction of its systems, it has to be careful to guarantee that any changes in information systems are in agreement with aims of the organization (Gottschalk, 2001; Chan, 1993; Chan, 1997; Chan, 2002; as cited in Hanafizadeh et al., 2008).

With regard to what mentioned above, the present study was formulated in order to determine the concept of critical success factors (CSFs) in strategic planning for information systems.

2- Definition of success in strategic planning for information systems

Making a strategic planning for information systems effective is very crucial for any public or private body. The success of strategic planning for information systems is noticeable with regard to organization's accomplishment. An organization's success is articulated differently on the basis of different strategic guidelines (Bruque and Moyano, 2007). A fruitful strategic planning for information systems will assist its operators hold future chances and then develop and make use of the organization's skills to profit from those chances (Wexelblat and Srinivasan, 1999). In general, it is extremely important to cautiously plan ahead before the implementation of information systems projects owing to the enormous cost involved. Numerous investigators agree that precision of the information systems strategy plan is certainly related to information systems adoption success (Bruque and Moyano, 2007; Mak, 2001; Paulson, 1995). Success in strategic planning for information systems can be observed as the degree of accomplishment of its purposes. There are four scopes of aims which they referred to as alignment, analysis, cooperation, and improvement in capabilities (Newkirk and Lederer, 2006). Alignment enables top

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management's understanding of the prominence of information systems. Numerous studies established that better alignment will bring about enhanced efficiency of information systems purpose. The prominence of alignment is extensively believed and ordered as critical. Analysis is the investigation of consequences of the internal processes of the association. It assists planners to attain a better understanding of the organization's present processes and procedures. Via the collaboration, planners ensure that key managers and users upkeep the procedure and content of strategic planning for information systems. Cooperation decreases the possible struggles that might put strategic planning for information systems application at risk by generating a corporation between managers, other users, and systems developers. The fourth aspect, improvement in capabilities, denotes the development of the potential of the planning system. The adapting of the planning process over time denotes a crucial constituent of planning efficiency. The extent to which these purposes are achieved by strategic planning for information systems therefore proposes its prosperity (Altameem, et al., 2014).

1- Definition of CSFs

Critical success factors contend that an organization's information necessities are considered by a tiny number of critical success factors (CSFs) of managers. If these objectives can be achieved, prosperity of the company or organization is guaranteed (Rockart 1979; Rockart and Treacy, 1982). CSFs are formed by the industry, the company, the administrator, and the wider setting. Novel information systems should emphasize on provision of information to aid the company to reach these aims. The major technique adopted in CSF evaluation is individual conversations with a few top managers recognizing their aims and the subsequent CSFs. These individual CSFs are combined in order to produce an image of the company's CSFs. After that, systems are constructed to provide information on the CSFs. The power of the CSF technique is that it yields a lesser amount of data to examine. The interviews are only performed with top managers, and the enquiries emphasize on a small quantity of CSFs. This technique clearly requests managers to inspect their surroundings. It is particularly appropriate for top administration and for the construction of decision-support systems (DSS) and executive support systems (ESS). The CSF technique concentrates on administrative consideration on how information should be dealt with. The technique's main fault is that the combination process and the examination of the data are art procedures. There is no predominantly arduous mode where different CSFs can be combined into a perfect company design. Also, examinees (and assessors) frequently become mixed up when differentiating between personal and administrative CSFs. These categories of CSFs are not essentially similar. Overall, a critical consideration for a manager might not be imperative for the organization. This technique is evidently influenced by top directors while it could be stretched to produce notions for hopeful novel systems from lower-level affiliates of the firm (Peffer and Gengler, 2003). Finch (2003) and Olson (2004) specify that attainment of planning, economic, and occupational objectives are the motivations of the fruitful execution of information system schemes. The research has shown that prosperous information system schemes has seven features also identified as critical success factors (CSFs): within time limit, within the forecasted budget, alignment with the business performance, user's acceptance, minimum disordering of the work flow of organization, slightest effect on the business culture. Fig. 1 shows the flowchart of using CSFs to develop systems.

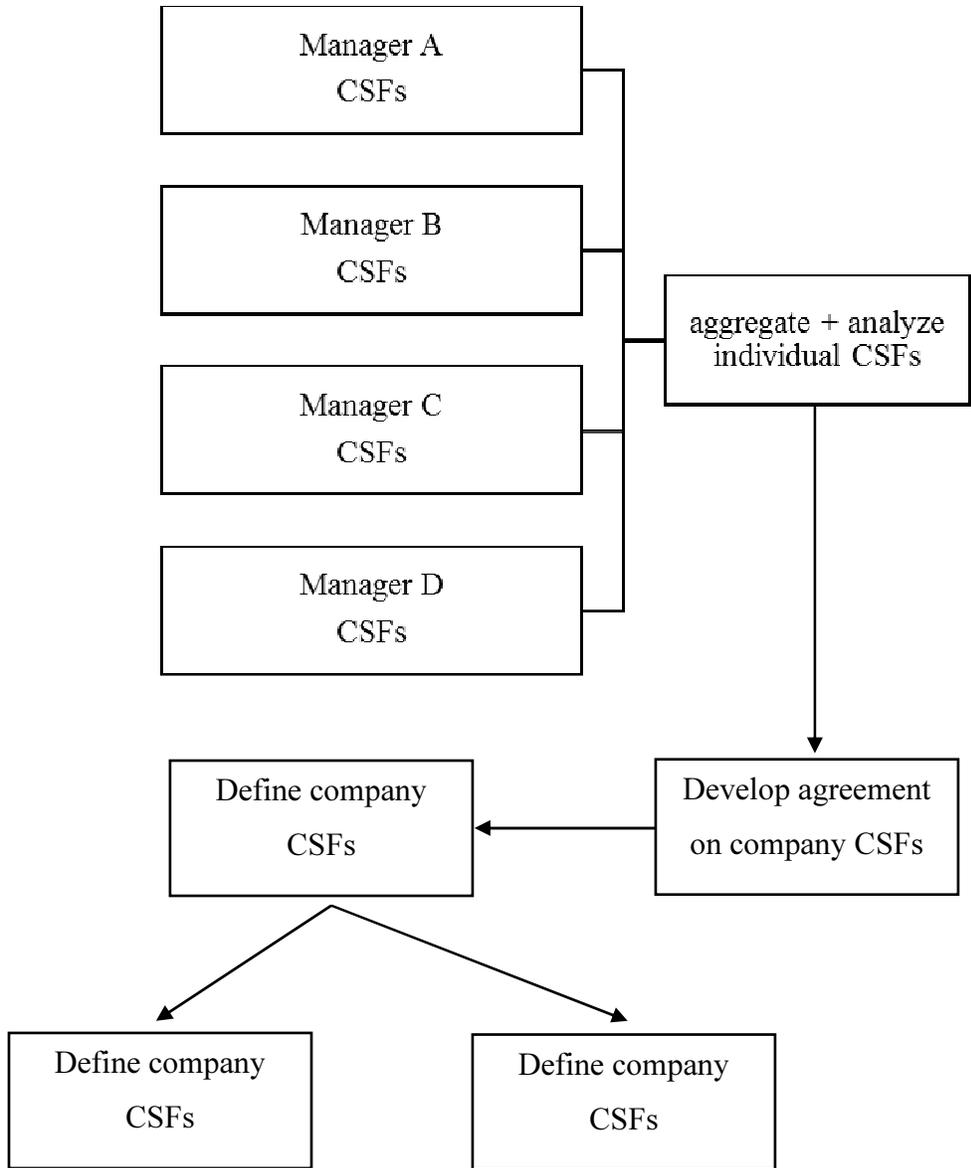


Figure 1: Using CSFs to develop systems

3- Various groups of CSFs

CSFs can be categorized in three scopes: internal CSFs versus external CSFs, monitoring CSFs versus building/adaptive CSFs and the above mentioned five sources. These methods of categorizing the CSFs are valuable for an expert in that they construct a design that demonstrates what the director's domain outlook looks like. The first group, internal versus external, meaning that internal CSFs are connected to the manager's section or the staff of individuals he controls, i.e. CSFs connected to subjects and condition within the managers governance. External CSFs are the ones which most frequently are outside the administrative effect like the rate of raw material. The second arrangement, monitoring versus building/adaptive, meaning how the executive is connected to his purpose. If he is anxious a lot with the efficiency of his section and spends a great amount of energy in directing and assessing that performance the manager is monitoring and therefore, have CSFs connected to monitoring. Alternatively, a manager who is much worried about forthcoming development and variations is then building/adapting, consequently being concerned with CSFs linked to building/adapting. A manager is a combination of both but frequently inclines towards one or the other. The arrangement can help to imagine what kind of CSFs a manager is dealing with (Eberhagen and Naseroladi, 1992).

4- Sources of CSFs

Rockart distinguishes between five sources of critical success factors:

- The industry, e.g., demand characteristics, technology employed, product characteristics etc. These can also affect all competitors within an industry, but their influence will vary according to the characteristics and sensitivity of individual industry segments.
- Competitive strategy and industry position of the business in question, which is determined by the history and competitive positioning in the industry.
- Environmental factors are the macroeconomic influences that affect all competitors within an industry, and over which the competitors have little or no influence, e.g., demographics, economic and government legislative policies etc.
- Temporal factors, which are areas within a business causing a time-limited distress to the implementation of a chosen strategy, e.g., lack of managerial expertise or skilled workers.
- Managerial position, i.e., the various functional managerial positions in a business have each their generic set of associated critical success factors (Grunert and Ellegaard, 1992).

5- The association between CSFs and strategic planning

Bullen and Rockart state that CSFs are for acknowledging main concerns and assigning capitals, particularly management consideration. They believe that CSFs enhance worth to the development procedure by revealing those criteria that will most touch achievement or failure in chase of structural or executive objectives. CSFs define the working requirements of the current situation. Organizational CSFs likewise deliver an essential contribution into the strategic planning procedure. However, Bullen and Rockart recognized that advanced CSFs are an essential contribution to the strategic planning process. Anthony et al. outlined CSFs as characteristics of the business that were highlighted by organization to gain a competitive advantage. Caralli emphasized that CSFs result in achievement of an assignment and contended that when CSFs are involved in the valuation of an administration's present atmosphere, vital working essentials that allow the victory of the task are more probable to be recognized in the subsequent policy. In each circumstance, CSFs can be observed as facts filter that enables strategic or executive policymaking. Caralli believes that CSFs describe important parts of performance that are vital for the organization to realize its task. Administrators implicitly distinguish and reflect these important parts when they set objectives and as they direct working actions and tasks that are significant to attaining objectives. Nevertheless, when these important parts of performance are made obvious, they deliver a shared point of reference for the whole institute. Therefore, any action or enterprise that the organization assumes must safeguard reliably high performance in these important parts; else, the organization might not be able to attain its objectives and therefore might be unable to complete its task. Bullen and Rockart declare that for success of an organization, its policy must be advanced to surpass in those parts where high performance is important, and CSFs are a reasonable contribution to the strategic planning procedure. Nonetheless, CSFs do not deliver adequate contribution to strategy progress. The CSF technique must be combined with a completely defined strategic-planning method that comprises a state examination module, a visioning module, and a goal-setting module. CSFs suit obviously with planning since they permit an organization to describe the issues that are vital to the organization's attainment throughout the planning period. CSFs are valuable in both working and strategic planning. In reality, predominantly in today's settings, there is an association between different stages of CSFs and different levels of planning. By incorporating such strategic plans as information technology into working CSFs, the practice of CSFs in administrative planning becomes more puzzling than before. Obtaining CSFs from the uppermost stages of an organization creates a suitable combination of CSFs from majority of these sources (Gates, 2010).

6- CSFs and goals and measures

There can be some misperception between CSFs and objectives, which are not similar. Objectives are comprehensive, elevated purposes that upkeep the achievement of the task. Like objectives, CSFs denote things that allow the achievement of or contribute to the success of a task. Objectives, nevertheless, are frequently obtained from performance management movements rather than strategic planning, and are fixed with a sense of viability rather than organizational accomplishment or influence on achievement of the task. CSFs refer to current functioning accomplishments that must be sustained for the organization to function positively. Where goals help an organization reach achievement, CSFs guarantee an organization's existence. If an organization concentrates only on objective-setting, therefore, it may, drop consideration from the daily accomplishments that sustain its achievement. Objectives and CSFs share a many-to-many association since organizational objectives may depend on the accomplishment of more than one CSF and a CSF may influence on the attainment of numerous objectives. The potential association between CSFs and objectives reveals their interdependence and prominence for completing a

task (Caralli, 2004). CSFs reveal parts that are vital for the organization in the present working setting and to forthcoming achievement; they stay equally continuous over time, at least in the way that they are understood as parts necessary for the accomplishment of the task in both the current situation and the future. There is some variability amongst CSFs and aims. An action distance in a specific working part might bring about a CSF to be raised into a fix-oriented objective. In turn, a goal, as soon as attained, might incline toward a CSF.

In an initial involvement in the effort on critical success factors and management control systems, it is highlighted that the growth of appropriate capacities is extremely important for checking acknowledged CSFs (Anthony, 1972). While all recognized CSF method explanations do not contain emerging CSF procedures, procedures were similarly an important part of Rockart's innovative CSF method. Rockart believes that critical success factors are parts of action that should obtain continuous and cautious consideration from management. The present position of performance in each part should be repeatedly evaluated, and that information should be provided (Rockart, 1979). Critical success factors can create a series of performance procedures that straightly associate operational matters to the task (Gates, 2010).

7- Conclusion

Developed strategic planning for information systems is a chief task for authorities of information systems. Prosperous planning is significant to the understanding of the possible strategic influence of information systems. The principal policy for information systems planning is that the planning procedure must be completed according to administrative strategies. Majority of administrations currently approve that information systems are significant strategic administrative sources providing strategic benefit and increase organization efficiency. An organization with better strategic planning for information systems face with smaller number of difficulties. In this regard, a full comprehension of critical success factors seems to be very important for achieving prosperity in short- and long-term perspectives of any enterprise.

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