THE IMPACT OF STRATEGY ON ICT PROJECTS

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ABSTRACT

Strategic planning processes are oriented towards the selection of objectives and product/market choices by senior management. From this viewpoint strategic planning provides a mechanism for setting and reviewing objectives, focusing on choices of long-term significance, identifying strategic options, allocating resources, and achieving corporate-wide co-ordination, monitoring, and control. Current literature on strategic planning has recognised the problems with traditional approaches to planning. In this article, the authors seek to consider links between strategy and the implementation of ICT projects within the telecommunications industry.

Keywords: Strategy, Implementation.

1.0   STRATEGY AND ITS IMPACT ON ICT PROJECTS

Information, Communication and Technology (ICT) is the terminology which refers to the convergence of the Information Technology and Communications industry. It also reflects a set of products offering data and value-added services to help organisations run their businesses more flexibly while at the same time serving their customers more efficiently & effectively.

According to Brancheau et al. (1996) ICT can influence the change process and business relationships among co-operating and competing entities in any

market. When properly executed, ICT involvement in the business process re-design enables companies to offer novel products, incentives and services and at the same time participate in new market programs (Konsynski, 1993; Broadbent & Weill, 1999).

Fedorowicz & Konsynski (1992) are of the view that ICT is geared towards supporting or transforming business processes and can provide strategic value to all parts of the business in addition to supporting the administrative infrastructure of any organisations.

ICT implementation strategy and its linking to business goals are crucial and on-going aspects of the business strategy for many organisations, thus making it essential that successful implementation of the resultant information systems is achieved. In Telecommunications there are a few reasons for this. In the first place, organisational boundaries within the industry are blurring with increased partnerships with clients and competitors. Secondly, the telecommunications business is experiencing increased competition and restructuring leading to a higher degree of uncertainty, and a faster pace of change. In addition, the traditional view of the business organisation with clear boundaries, limited relationships, and a focus on internal efficiency and effectiveness is no longer realistic.

Ensuring the selection of systems applications that further any telecommunications company's overall strategic objective and translating this strategic intent into operational reality quickly to meet market needs remains a managerial challenge (Meekings et al., 1994). For the telecommunications industry, this is especially true as major ICT projects take years to design and implement, thus standing the chance of actually being obsolete in terms of functionality capability by the time they are deployed (Hayley, 1989; Carlson, 1989).

2.0   STRATEGY FORMULATION

Recent changes over the last decade within the trading environment of most UK telecommunications companies have imposed new challenges businesses. This according to Bonn & Christodoulou (1996), has resulted in the transformation of ICT resources, products and services which has led researchers such as Eisenhardt (1990), Mintzberg (1990), Porter (1991) and

Kramer (1993) to emphasise the increased need for research into dynamic strategy formulation and implementation by both academia and industry.

According to Carter (1999), strategic planning has been around for centuries in the form of military strategy. The modern form of business strategy planning however can be traced back to the 1920's when Harvard Business School developed a Policy Model, one of the first strategic planning methodologies for commercial business (Carter, 1999). Over the last few years, it has developed into a fairly distinct sub-discipline in management studies aimed at designing competitive strategies. These strategies have enabled organisations to stretch their business objectives, thus ensuring the life of the organisation as an enterprise for the future (Hamel & Prahalad, 1993; Hofer & Schendel, 1978). As a process, the formulation of strategy involves the development of long-term game plans (Samlia et al., 1998), geared towards responding to environmental opportunities and threats. It encompasses all the actions that are *"aimed directly at altering the strength of the enterprise relative to that of its competitors"* (Ohmae, 1982).

Research into strategy formulation and implementation encompasses a wide range of issues. In many cases the full potential of research has not been realised because of its often narrow focus, and also a neglect of the dynamics of change (Feurer & Chaharbaghi, 1995). In line with growing acceptance of the importance of strategic planning, the focus of strategy research is shifting away from identifying drivers of organisations towards organisational learning, strategic change (Talwar, 1993; Hammer, 1990) and maximising the change potential of the organisation.

Unfortunately, research has so far failed to develop methods of strategic planning that can be effectively applied to highly dynamic environments such as the ICT industry. Often such an industry needs to react to a immediate strategy need being driven by market requirements. Both Hamel & Prahalad (1993) and Barton (1995), are of the opinion that this means that there is now greater appreciation that traditional strategic analysis of core competencies or industry structure will rarely solve strategic problems as what in effect has been yesterday's core competency has become tomorrow's core rigidity.

What then should telecommunications companies do in order to improve their ability to initiate ICT projects that could enhance strategic planning within a highly dynamic and uncertain environment?

According to Feurer and Chaharbaghi (1995), there is neither substantial consensus among many researchers on how to design such planning processes, nor are there generic strategies for corporate success. This view is also supported by Kay (1993) who points out that no theory of corporate planning allows for the prediction of strategic behaviour by inference from a well-defined set of rules. There are two main reasons for this. In the first place, there is no common perspective and conceptual base between different studies as issues are viewed differently. For example while some researchers such as McGee & Prusak (1993) and Camerer (1985) have called for more scientific approaches which encompass quantitative modelling and testing, others including Robinson (1993) are requesting more descriptive approaches using case studies. Secondly, although the popularity of strategic planning continues, Mintzberg (1993), suggests that the link between its use and organisational performance has yet to show consistent signs of significance. One possible explanation for this relatively poor link, which involves a lack of understanding of the important contextual factors likely to cause modifications in planning systems, has been suggested by Drago & Clements (1999).

What then is an acceptable model of strategic planning for organisational success within the telecommunications industry? In the author's view, this is dependent on two factors. The first is the industry's ability to align itself correctly to the environment. Secondly, an acceptance based on existing work by Ludlow (1990) that there is no simple rule of thumb for selecting appropriate planning strategy methodologies. Hence, in order for telecommunications companies to ensure success, especially in periods of environmental turbulence, there is a need to achieve an alignment between their capabilities, chosen business strategy at a level of the demands of the environmental turbulence.

3.0   SUCCESSFUL   AND   UNSUCCESSFUL   STRATEGIC   PLANNING

In the last few years a stream of studies has attempted to test the performance effects of different aspects of the strategic planning process. The results have been wide and varying. Some results such as that of Mintzberg (1994) do suggest that formal strategic planning is incapable of dealing intelligently with an uncertain environment' , while others (Hart, & Banbury, 1994; Miller & Cardinal, 1994) seem to suggest that organisations with strong strategic planning are outperforming non-planners in a turbulent environment'.

However, the idea that there are deficiencies in formal planning has gained prominence in the broader context of the strategy and change literatures in the decades since the model of strategic planning processes were developed.

This is especially related to the attempt to make a science of planning with its subsequent loss of creativity; the excessive emphasis on numbers; the drive for administrative efficiency that standardises inputs and formats at the expense of substance and the dominance of single techniques (Lenz, 1987).

Based on these results, the authors believe that no conclusive evidence has emerged to unequivocally demonstrate organisational performance benefits from strategic planning especially as contradictions in research findings and strategic planning measures have lacked precision and consistency (Kukalis, 1991).

Whereas past research on strategic planning has been inconsistent in defining planning, a closer look at newer studies reveals that strategic planning, measured on the basis of the conventional strategic management paradigm, seems to show a positive association with performance. The strategic management paradigm entails the existence of strategic objectives, long-term plans, competitive analysis, strategic control, and so on. The studies found a positive association between planning and performance, particularly in dynamic and complex environmental settings, while planning formalisation, for instance written plans, the use of manuals and the like, showed no performance relationship (Pearce et al., 1987; Kukalis, 1991). These results imply that centralised strategic planning drives performance effects rather than the formalisation and comprehensiveness of the planning process. Consequently, a strategic planning process that adheres to the key elements of conventional strategic management for example through the development of mission statements, long-term goals, action plans and controls seems to support organisational performance.

The authors also suggest that strategic planning remains effective in time of great turbulence primarily for two reasons. In the first place, organisations that operate in highly competitive environments will tend to develop planning processes that emphasise flexibility in their structures by the use of continuous scanning, forecasting and analytical techniques for the assessment of competitive conditions. Secondly, because stable conditions may prevail for protracted periods of time, there are always islands of stability in the system which ensures that strategic planning is still be a worthwhile exercise.

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4.0 THE VALUE OF ICT

Expenditure on ICT has progressively increased over the past 50 years. As a result, it has now become more crucial for senior management to target funds to ICT projects that will achieve the most benefits for the organisation. It is due to this role of ICT in strategy implementation, that the fundamental issue of the business value of proposed ICT projects and how they fit into the corporate strategy plan becomes the mechanism through which the firms are able to link implementation and deployment to business strategy.

How then do we ensure that proposed ICT projects fit into a telecommunications organisations corporate strategy?

In the first place, the authors believe that proper requirements capture and project management remains in the forefront of company policy. By proper requirements capture and project management organisations should be able to cope with rapid and continuous change brought about as a result of continuous improvement and the increase in complex technology (Mansell-Lewis, 1996). On the other hand, by proper project management, an organisation can ensure that the projects are delivered to time thus enabling a reduction time to market for products.

The use of ICT should also be an element in the strategic planning process because of the potential effects on the achievement of the business objective (Curtice, 1987). This can be achieved by integrating ICT projects into the normal business planning process. This integration means that ICT and business unit staff should be encouraged to work together in developing a plan for ICT based on value that becomes part of the business unit plan. Such an approach can be developed through a traditional cost/benefit methodology that is customised to address the issues unique to information technology decisions.

The authors are of the opinion that a manifesto of targeted ICT requirements based on flexible and robust technology infrastructures will emerge from this process.

5.0 CONCLUSION

Despite an emphasis on planning concepts, it is well documented that the major problem of long-range strategy planning and its link to ICT requirements

has yet to be successfully defined and addressed. Essentially, this problem involves finding a way to plan for ICT so that it is directly linked to organisations corporate business plans.

Hence, as strategy is more about process than about content or any specific set of moves, the ICT strategic plan must not be static, but constantly changing in order to support an organisation's business planning.

The authors recommend the use of project management principles and processes as a means of ensuring the speedy implementation of corporate strategies. One major advantage of the use of such project management principles is that strategy implementation and the deployment of relevant ICT projects that help to drive the strategy will be carried out using a systematic process.

The authors also recommend including an element of decentralisation of strategy in planning and ICT implementation. This however will mean empowering more junior managers to produce and implement accompanying ICT strategy requirements, thus saving time in terms of waiting for executive management approval. The authors however accept that there are accompanying corporate risks with this approach especially in terms of the management of risk and the need to ensure that a fully managed and integrated corporate and ICT strategy is maintained.

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