Strategic Commitment to Innovation in the Saudi Manufacturing Sector

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ABSTRACT
Innovation is seen as necessary in the context of Saudi Arabia's current economic situation. Coupled with a strategic orientation, strategy innovation also has the potential to improve organisational competitiveness and performance. Within this context, the study investigated a selection of 20 manufacturing companies in Saudi Arabia to ascertain the nature of their strategic commitment to innovation. Four distinct arrangements were identified for managing strategic innovation in 11 of those companies: innovation managers, innovation directors, innovation group directors, and innovation teams. The backgrounds, roles and responsibilities of each of them are described and compared. The overall impression is that there is a lack of awareness and knowledge of innovation, and even less evidence of skills for strategically managing innovation. This is not conducive to Saudi Arabia's urgently needed progress.

Keywords— innovation, strategy innovation, strategic commitment

1. INTRODUCTION
For organisations and economies, surviving, growing and competing becomes more challenging than normal in the face of such conditions as financial downturns, increasing competition, increasing globalisation, the emergence of new technologies, and so on. These are all characteristic of a rapidly changing environment in which development related issues become prominent, there is a greater focus on strategic planning, and an important means to cope under these circumstances is to innovate. As Potts (2010) pointed out, the issue of development comes to the fore when under pressure of a financial crisis, declining stocks of natural resources, the threat of long term scarcity, and so on. It can be argued that Saudi Arabia has also entered a stage where it desperately needs to become innovative if it is to overcome its current economic crisis and to ensure its longer-term stability by diversifying.

This paper reports on an investigation into innovation in one specific sector of its economy, namely manufacturing, from the perspective of innovation being part of an overall business strategy. The following two questions were formed to help guide the research: (1) Who is responsible for strategically managing innovation in the company? (2) What is their background and the nature of their responsibilities with respect to innovation and strategy? The study was conducted in the context of Saudi Arabia’s current economic crisis. It takes the view of innovation having a valuable role within the strategic planning process.

2. PRESENT ECONOMIC CONDITIONS IN SAUDI ARABIA
Saudi Arabia’s economy has traditionally relied heavily on oil revenues, but as oil is naturally a depletable resource, it cannot be relied upon for the kingdom’s long-term development. Given also the current economic climate in which oil revenues have been decreasing due to falling prices, there is currently a diversification drive in Saudi Arabia. Maintaining economic stability is essential because instability can lead to a host of other problems, such as high unemployment and rapidly rising inflation (Montiel, 2011). In fact, the situation in Saudi Arabia is dire, as the once oil-exporting giant that was making windfalls is now in deficit, and the Saudi government is consequently struggling to provide jobs and is now making necessary cutbacks (Naylor, 2016). The situation is also compounded by the potential unrest that could ensue if the situation lingers, as Saudi society is traditionally highly conservative and resistant to change. Over the preceding year and a half, oil prices have plunged by around 70%.
In order to resolve the difficult situation, Saudi Arabia recently implemented a blueprint for reducing its reliance on oil exports, which includes a range of socio-economic and other programmes (Carey, 2016). This shift away from an oil-based economy would be “the biggest economic shakeup since the founding of Saudi Arabia in 1932”. Innovation would have to play a key role in bringing about this change, as it has demonstrated its potential to help pull economies out of financial crises, just as lacking in innovation can either contribute to or deepen a recession (Hausman & Johnston, 2014). The important role of innovation in economic development has also been acknowledged, for instance, by Wong et al. (2005) and Nordqvist & Melin (2010). Assuming this importance is established, innovation may then become a more critical factor during times of economic hardship and financial crises. This could make it worth giving innovation attention in the context of Saudi Arabia’s current economic crisis fuelled by declining oil revenues.

Besides diversification, innovation and education are thus seen as important new pillars in the move away from oil wealth. The kingdom’s education strategy is also being realigned to support innovation. Recently, the government invested about $57 billion in various education initiatives, which involved constructing over 80 new vocational colleges for enhancing the skills of its workforce (Mayenkar, 2015). Altogether, the government has spent $318 billion since 2011 on various research and development related projects, and in improving ICT networks. The focus on innovation and education is seen as a catalyst for its necessary transformation.

3. LITERATURE REVIEW

3.1 Innovation

For the purpose of this study, innovation can be considered as “a process constituted by different activities that result in a new product, expansion of a process, a new service in a specific market with local, national or international scope” (Rios, 2016). However, this study focuses on innovation with a strategic orientation, specifically strategic commitment to innovation. Strategic commitment to innovation at a corporate level is reflected by practices such as involving senior management, having dedicated cross-functional resources, ensuring good practices, and making continuous improvements in innovation (Kahn, 2012). The existence of cross-functional teams especially was also deemed to be necessary by Cottam et al. (2001) in their landmark study on strategic commitment to innovation due to the valuable role of cooperation. As distinct from innovation practices without a strategic orientation, strategic commitment to innovation “virtually guarantees the involvement and commitment of others from the very beginning of the innovation process” (Plsek, 2013: 96).

An important source of innovation for a company would be its link with academic researchers and institutions. Dinapoli (2011) for instance, recognised the importance of higher education institutions in helping to promote new ideas, supporting the development of a capable workforce, and as catalysts of economic growth. The extent of innovation possible is determined by various factors, such as allocation of human and financial resources to research and technological advances, the degree of technological sophistication, fiscal incentives for innovating, legislation and public policies, etc. (Porter & Stern, 2001). An innovative entrepreneur was regarded by Schumpeter in 1911 as a key factor for fostering economic development (Wong et al., 2005), which he understood to mean processes of “creative destruction” that trigger disturbances that lead to a new rebalanced state of the economy creating wealth and opportunities.

According to the Global Innovation Index 2015, Saudi Arabia is ranked at 43 with a score of 40.64 globally, which is a little higher than other Arab countries in the gulf region including UAE (ranked 47) (Dutta et al., 2015). Particular strengths noted in the report are the proportion of graduates in the manufacturing and related sectors, and use of information and communication technologies as creative outputs. With respect to other aspects relevant to this study, the industry-university collaboration in research is rated as average, and in areas such as manufacturing output, exports of creative goods, patents and ISO quality certification, the overall statistics indicate a need for improvement.
3.2 Importance of Innovation and its Potential Outcomes

As described by Nijkamp (2003), innovation is a key driver of change that helps to achieve a new state of balance, and it provides the capability for advancing in productivity by means of a ‘modus operandi’ for entrepreneurs that also contributes to economic growth. Innovation is sought, for instance, by building strategic partnerships, or links with science parks for establishing close relationships with research groups (Etzkowitz, 2008).

Innovation is often associated with developing competitiveness. Innovation is a key aspect of competitiveness for companies, economies and regions alike due to increasing globalisation of markets and increasing competition linked with increasing technological complexity (Alvarez et al., 2009). It is recognised as a key driver of competitive regional development (Gil, 2014). It is an important element in the creation of wealth (Gibson & Naquia, 2011). It is also considered to be an engine of economic growth that, as with technology diffusion, has the potential to provide the organisation itself as well as the country it is located in, with competitive advantages. Although there may be many other drivers of competitiveness, such as macroeconomic stability, training, market efficiency, technical readiness, and business sophistication, innovation is recognised as an important ‘pillar’ of competitiveness in the Global Competitiveness Report (Fendel & Frenkel, 2005).

Importantly, competitiveness is not a goal in itself. Rather, it is valued for its potential positive impact in terms of productivity, creating wealth and return on investment, and for the country as a whole with respect to job creation, economic growth and social welfare (Farinha & Ferreira, 2013). Earlier, Porter (2000) distinguished between three different types of countries based on their position of competitiveness: as factor-driven, efficiency-driven, and innovation-driven countries, as well as two transitions between the stages. According to this model, countries with relatively low GDP per capita tend to have a low weight for innovation and sophistication, and are factor-driven economies. In contrast, these two factors of innovation and business sophistication have higher weights in developed economies with a higher GDP per capita.

With respect to progressing towards becoming innovation driven, Schwab (2013) argued that a country reaches the next level after it has demonstrated the capability to consolidate its position in the preceding stage. Furthermore, Turok (2004) pointed out that since economies have now become more interconnected through international trade and investment relations, other sub-factors have arisen that characterise an innovation-driven country, namely quality of networking economically, and the quality of business operations and strategies.

3.3 Innovation with a strategic orientation

The quality of innovativeness may also be seen as an action that ensues from the strategic planning process, as well as a reaction resulting from changes in the external environment (Dibrell et al., 2014), which can be described as innovation with a strategic orientation. In their study on firms linking the formal strategic planning process, planning flexibility, and innovativeness to their performance, the results showed that those capable of both acting and reacting concurrently find themselves to be in a better competitive position compared to those that are not able to change their strategic plan objectives in line with the external environment. This capability is thus seen as a vital advantage for enhancing innovativeness, and having vision and direction. Importantly, the results established that firms that rely on innovativeness specifically for its potential in enhancing value, are able to realise increased financial performance by taking advantage of the outcomes of their formal strategic planning processes. Through these strategic planning processes, firms are able to conduct analyses, both internal and external, scan for emerging trends, and evaluate potential alternatives (Wiltbank et al., 2006). Using the knowledge derived in this way, executives are then able to identify opportunities, invest in suitable value-creating resources, and seed their innovative processes which may then lead to improved products and services, new ones, and increased financial performance.

In another study involving 448 firms in a multi-industry sample, it has been shown that innovativeness is positively related to both formal strategic planning processes and to planning flexibility, and secondly that innovativeness mediates the relationship between these two and firm performance (Hult & Ketchen, 2001; Dibrell et al., 2014). It has also been found to mediate the
relationship between quality and growth (Cho & Pucik, 2005), and increases the likelihood of a firm’s strategic orientation to result in delivering successful products (Droge et al., 2008). This establishes the importance of innovation as a necessary quality of strategic planning, and for its potentially favourable impact, especially on performance. Similarly, Bicen & Johnson (2016) examined several studies that have empirically measured the relationship of innovation with organisational performance. They found evidence to confirm that innovation which leads to a firm devising creative products typically account for the major portion of its ‘superior financial performance and growth’. It is also pertinent to note however, that many of these studies are conducted in the context of advanced industrial economies.

Innovation was not always considered to be important from a strategic point of view. A few decades ago in the 1980’s, only product innovation was widely accepted whereas applying innovative principles to strategy was not, and the trend in innovating has now led to the emergence of what Johnston & Bate (2013) have termed as ‘strategy innovation’. This refers to “the creation of a compelling future state for the enterprise – a future that breaks the shackles of the past and of a predictable trajectory”. This strategy innovation arises out of the organisation’s core values and vision, and it differs from traditional strategic planning in that it is characterised by imagination and creativity. Traditional strategic planning may be described as a process involving defining, determining and implementing a firm’s strategic initiatives (Jarzabkowski & Balogun, 2009). Critical to this process is a scanning of the external environment, gathering useful data on it and its analysis. The information thus gained may then influence strategic planning decisions.

In contrast, critical to strategy innovation is the adoption of an open mindset, and the potential for innovating is viewed as being embedded in every individual of the organisation, not exclusively to research and development or marketing. Given the potential usefulness of the information gained from the external environment in terms of customer needs, market trends and technological developments, etc., which are valuable inputs in the process of innovating (Zahra et al., 2002), this supports the importance of involving innovation in the strategic planning process (Salomo et al. 2008). Environmental scanning and innovativeness combined with formal strategic planning could assist an organisation in offering new products that meet customer needs or adapt to their changing demands, and establish a more productive and competitive posture. That is, innovativeness could help realise the value of strategic planning processes.

For measuring changes in business performance, a key strategic planning tool is the balanced scorecard. This business performance measurement and management system was developed by Kaplan and Norton in 1992, and is designed for analysing organisational success through reviewing business, financial, customer, employee learning and growth perspectives (Schwartz, 2011). It is based on traditional measures of business performance, financial performance, customer relations, learning and growth, etc. Importantly, it also helps organisations align their business activities with their strategic objectives, to improve communications, and help monitor their performance against these objectives (Ashu, 2009: 7). The could help in clarifying the organisation’s vision, and help translate its strategy into action. Moreover, using this tool has the potential to help ‘balance’ the situation between the aforementioned measures of performance.

4. METHODOLOGY

This study was driven by the view of innovation being an important means for overcoming financial difficulties, diversifying and competing. The attempt was to establish the extent to which manufacturing sector in Saudi Arabia has committed itself to innovation as part of its strategic planning. This strategic commitment to innovation was taken to be indicated foremost by the organisations operating in this sector having a member of staff or department specifically appointed for directing innovation besides other indications such as resource commitment. An exploration was made of the backgrounds, responsibilities, mandate, reporting structure, etc. of these personnel engaged for strategically committing to innovation.

In order to obtain a sample of manufacturing companies that may exhibit strategic commitment to innovation, 20 companies were contacted that were listed in the Forbes list of top 100 companies in the KSA (Forbes, 2016). The department responsible for innovation was contacted directly by email for
information and requesting to participate in the research, and in cases where this was not apparent, by contacting the human resource, R&D, or other appropriate department. Those organisations which did exhibit strategic commitment to innovation formed a sub-sample of the initial sample of organisations.

5. FINDINGS

5.1 Response

The search for manufacturing organisations with evidence of strategic commitment to innovation revealed that there was a scarcity of such organisations. That is, there were very few manufacturing organisations that had invested in personnel specifically for directing innovation. The second sub-sample comprised of 11 manufacturing companies, which is 55% of the first sample. That is, only 55% of a sample of 20 manufacturing companies in Saudi Arabia exhibited evidence of strategic commitment to innovation, and all of them were willing to divulge information about their practices.

5.2 Staff or department responsible for innovation

In those 11 organisations that did have staff or a department for strategically managing innovation, 8 (73%) had a specific department for the purpose; a group or strategic business unit dedicated to ensuring innovation takes place and the organisation is able to take advantage of the innovation. In others without such a dedicated department, there were personnel appointed as either managers or directors of innovation, or who were part of a R&D, technical or other team with evidence of some commitment to innovation. Four types of arrangements were identified: innovation managers, of which there were 2; innovation directors, of which there was 1; innovation group directors, of which there were 5, and innovation teams, of which there were 3. Relative to the first sample of manufacturing companies, the remainder 9 (45%) of them had no strategic commitment to innovation, and it was found that many of them were not quite sure of how to manage innovation.

The investigation of innovation in the Saudi manufacturing sector thus showed there is a need for much greater awareness of the importance of making a strategic commitment to innovation, and even among those that have done this, to realise the benefits of innovation by giving it a strategic direction. In fact, there is generally a need for more organisations to be educated on the meaning of innovation; the potential value of engaging in innovation, and for restructuring organisations to be able to take advantage of this potential.

5.2 Background and the nature of their responsibilities

The next stage of the research involved gathering more details from the personnel found to be responsible for strategically managing innovation in the eleven companies. This information was gathered through interviews. The descriptions are given separately for each of the four arrangements below, and summarised in Table 1.

Innovation Managers (2)

The two innovation managers were both called ‘Innovations Manager’. Both of them had a strong background in marketing, worked within the marketing department, and their role was to report to the marketing manager or director. One innovations manager had been appointed for the past five years and the other for the past three years. Their responsibilities were concentrated on financial areas such as finding innovative ways to increase sales and improving returns to shareholders although there was also evidence of some attention to innovating for motivating employees by means of providing working concessions and incentives. No attention was being given to diversifying products.

Innovation Directors (1)

The one innovation director, who was labelled as ‘Director of Innovation’, also had extensive marketing knowledge, but he was a specialist in operations management and in R&D. This director’s role involved researching the market, developing product ideas, finding cost-effective solutions, and suggesting strategic directions for the company by reporting directly to the company’s managing director. He had been appointed in this position for the past two years. Previously, the company had appointed an innovation manager in the R&D department, so this was a new type of appointment. In
terms of diversification, the innovative practices did lead to some experimentation, and the R&D department was active in this regard, but no new products had been developed and offered in recent years that could be seen as an indication of innovation taking place.

Innovation Group Directors (5)

The innovation group directors were responsible for managing strategic innovation at a group level. The longest appointment of an innovation group director was for four years, the shortest 1 year, and the average for the five directors was 2.2 years. Three of the innovation group directors had titles of ‘Group Director of Innovation’, one had the title ‘Director of Strategic Innovation’, and another had the title ‘Group Director of Strategy’.

The backgrounds and roles of the innovation group directors were more extensive as compared to the single innovation managers and innovation directors. Besides carrying out the functions of the aforementioned, especially financial functions, their main role was to coordinate innovative practices and implementations throughout the company, assess the market potential for new innovations, look for ways of exploiting new technologies, and so on. The scope was also wider in terms of encompassing both customer relations and global relations. Thus, there was a strong emphasis on the need to ensure customer satisfaction, good product and company reputation, as well as the satisfaction of other stakeholders especially shareholders. The efforts in innovating was evident from the range of products developed and offered. All the innovation group directors reported their activities and made recommendations directly to the managing directors of their respective company.

Innovation teams (3)

Three of the selected companies had dedicated innovation teams in which there were several team members with a variety of backgrounds focused in their efforts on the same task of strategic innovation through working together. This included senior executives and junior managers. In all three cases, the teams were of a cross-functional and inter-disciplinary nature. Two titles were ‘Innovations Team Director’, and one was ‘Director of Strategic Innovation’. There were representatives from a range of departments, particularly marketing and R&D. In two of the companies, the role of strategic innovation was largely confined within the group, but in one company, it was of an open nature in that active participation was permitted for any employee of the company, especially in regard to soliciting creative and innovative ideas. This latter team however, had only been operational in this manner for a little over a year whereas it was previously similar in structure and function to the other two teams, which had been in operation for two and four years longer. Previously, they too functioned more as innovation groups rather than as teams.

The roles and responsibilities of the innovation team encompassed all those described above for the other three types of innovation management arrangements, but in addition there was evidence of much greater attention to organisational culture, regional and global technological trends, and emphasis on linking innovation with strategic practices. In other words, there was focus not only on finding ways to exploit innovative ideas, technologies and opportunities, as evident from the diversification of products and services, but also in ways to exploit this further to gain a competitive edge over competitors in the market, which was evidence of having a strategic orientation. There was also direct concern and a close relationship with the company’s own employees in the form of strong support systems in place and incentives in place that helped to establish a creative and innovative culture.

Table 1: Summary of backgrounds and responsibilities

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<td>-Finding innovative ways to increase sales and improving returns to shareholders</td>
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<td>-Motivating employees by means of providing working concessions and</td>
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### Innovation Directors

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<th>-Director of Innovation</th>
<th>-Operations management</th>
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### Innovation Group Directors

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<th>-Group Director of Innovations -Director of Strategic Innovation -Group Director of Strategy</th>
<th>-Comprehensive background</th>
<th>1-4</th>
<th>Ditto, plus: -To coordinate innovative practices and implementations throughout the company -Assess the market potential for new innovations -Look for ways of exploiting new technologies -Ensure customer satisfaction -Ensure good product and company reputation -Ensure satisfaction of other stakeholders especially shareholders</th>
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### Innovation Teams

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<th>-Innovations Team Director -Director of Strategic Innovation</th>
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<th>Ditto, plus: -to coordinate innovative practices and implementations throughout the company</th>
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### 6. DISCUSSION

The research conducted on strategic commitment to innovation in the Saudi manufacturing sector shows that awareness of innovation and the importance given to it is generally inadequate, as only 55% of the sample had personnel dedicated to innovation. An even less proportion showed evidence of a more strategic orientation to the commitment to innovation, and of promoting creative practices. The proportion of organisations with no commitment to innovation is too high, and those found with some commitment to innovation had personnel with only recent appointments, no more than five years.

Given the current economic situation of Saudi Arabia described in the introduction, and the need for greater innovation to take place to help bring about major economic changes, this means a lot more effort is necessary for raising awareness of innovation and its importance on an urgent basis. The small sample of 20 manufacturing companies does bring the generalisability of these findings into question, but at a time when there is desperate need for this transformation, these findings should be noted, and further investigation is advised. In particular, there is a general lack of attention to innovating to change corporate culture, in linking commitment to innovation within an overall strategy, and a general lack of generating creative ideas. Importantly, much of the attention, especially by single innovation managers and directors, was directed internally, and there was little attention if any to gaining a strategic edge over competitors. Some sense of strategic orientation was only evident in those organisations with dedicated innovation teams, and to a lesser extent in those with innovation group directors.

At the outset of the study, the first objective was to find out who is responsible for strategically managing innovation, that is, without considering what form that arrangement would take. It transpired during the course of the research that there were four such distinguishable arrangements. Single innovation personnel were appointed as either innovation managers or directors, and groups of them...
were either innovation group directors or they formed dedicated innovation teams. In this order of mentioning, the four arrangements are in order from the least focus on innovation and little or no link with strategy, to the greatest focus on innovation and the commitment linked with strategy. The roles and responsibilities, and diversification, also widened in this order. It is apparent that for a greater commitment to innovation and for that commitment to be directed to achieving strategic goals, a cross-functional team is an ideal arrangement. This facilitates strategic commitment to innovation and without being hindered by the traditional hierarchical organisational structure.

7. CONCLUSION AND FURTHER RESEARCH

This study embarked on an investigation into strategic commitment to innovation in the Saudi manufacturing sector. A total of twenty such companies were selected for the purpose. This involved finding out who is responsible for strategically managing innovation in each company, and examining their background and the nature of their responsibilities with respect to innovation and strategy. The strategic commitment to innovation was taken to be indicated by dedicating personnel for the purpose. The findings revealed only 11 of the 20 companies to have some personnel dedicated to innovation. The personnel were arranged as either 2 innovation managers, 1 innovation director, 5 innovation group directors, and 3 innovation teams. Of these, only the latter 9 showed evidence of strategic commitment.

Further research is strongly recommended. Although the sample investigated was small, the small proportion of those strategically committed to innovation should be a concern in the economic context of Saudi Arabia described which highlighted the need for innovation. A survey combined with interviews may help reveal the true extent of strategic commitment, more details of the responsibilities of personnel dedicated to innovation, and other relevant information to help promote a strategic commitment to innovation. This research would be necessary to ascertain whether Saudi manufacturing companies are currently in a position to propel Saudi Arabia’s economy out of its current economic woes, or whether changes are needed for them to be able to do so. On the basis of the present study alone, it seems a major and urgent transformation is needed.

REFERENCES

