

## ALIGNMENT OF A FUNCTIONAL INNOVATION STRATEGY

B.R. Katz<sup>1\*</sup>, N.D. du Preez<sup>2</sup>, C.S.L. Schutte<sup>3</sup>

<sup>1</sup>Department of Industrial Engineering  
Stellenbosch University, RSA  
[bkatz@brhc.com](mailto:bkatz@brhc.com)

<sup>2</sup>Department of Industrial Engineering  
Stellenbosch University, RSA  
[niek@indutech.co.za](mailto:niek@indutech.co.za)

<sup>3</sup>Department of Industrial Engineering  
Stellenbosch University, RSA  
[corne@sun.ac.za](mailto:corne@sun.ac.za)

### ABSTRACT

For a strategy to be successful it first needs to be the correct strategy then it needs to be aligned with the business values, structures, capabilities and other strategies and finally it needs to be executed [1].

This paper focuses, specifically, on the alignment of a company's functional innovation strategy. The connection between the different levels of innovation strategy and other business strategies are developed and explained. A range of different business strategy classifications are presented from the literature and a golden thread of alignment is sewn from a company's grand, strategic perspective down to its functional strategies.

A theoretical framework is presented, which contains the strength of the relationships between different generic strategic perspectives and the components of a functional innovation strategy.

The end result of this paper is a suggested decision framework which a company can use to align its functional innovation strategy with its strategic perspective, which in turn should be aligned with the company's mission and vision. This will enable the company to assign the correct resources to its innovation activities so that innovation enables it to achieve its overall objectives.

The decision framework is tested in theory by focusing on the insurance industry and understanding the interaction between the strategic perspectives of a company and that company's focus on innovation. Evidence is gathered to support assumptions about the company's innovation focus.

---

\*Corresponding author

## 1. INTRODUCTION

As part of the formalisation of innovation as a core business process the role and importance of an innovation strategy has come to the fore. As with all business processes the decisions made and the way in which the process is implemented are all governed by a strategy. The strategy governing the innovation process in a company is termed an innovation strategy [2].

For a strategy to be successful it first needs to be the correct strategy then it needs to be aligned with the business values, structures, capabilities and other strategies and finally it needs to be executed [1]. This paper focuses, specifically, on the alignment of a company's innovation strategy with the overall business strategy. This paper aims to introduce a framework, which can be used by a company to align its functional innovation strategy with its corporate goals and overall business strategy.

The questions addressed in this paper are:

1. Why is it important to align a company's functional innovation strategy with its overall business strategy?
2. What should an innovation strategy alignment framework consist of in order to assist a company with innovation strategy alignment?
3. How could such a framework be applied?

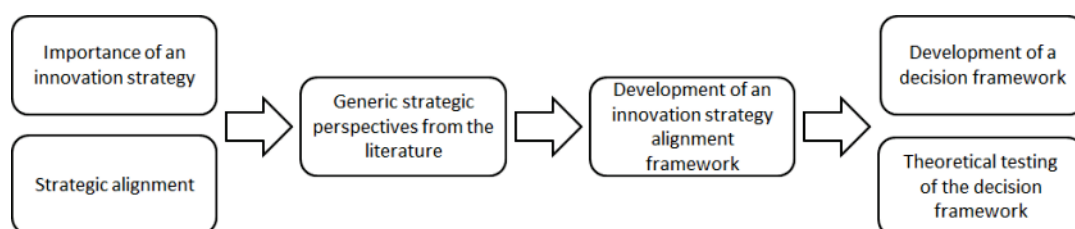
The first question is addressed by briefly explaining the importance of an innovation strategy, the role strategic alignment plays in successful strategy management and the relationship between an innovation strategy and other business strategies.

To address the second question a range of different strategy classifications, which have been termed "strategic perspectives", are presented from the literature. Next the connection between different components of a functional innovation strategy and the strategic perspectives are deduced. The strengths of these connections form the structure of the innovation strategy alignment framework.

To address the question of how the alignment framework could be applied, a decision framework is presented. This decision framework can be used by a company to make decisions regarding the components of its innovation strategy and assist with aligning its functional innovation strategy with its overall strategic perspective.

The paper concludes by theoretically testing the decision framework on a company in the insurance industry.

The process followed is illustrated in Figure 1.



**Figure 1: Process followed in this paper**

## 2. IMPORTANCE OF AN ALIGNED INNOVATION STRATEGY

There are a number of different definitions for strategy in the literature. In its original military context, as defined by General Ulysses Grant in the 1860's, strategy was defined as:

*“the deployment of one's resources in a manner which is most likely to defeat the enemy” [3].*

Mintzberg later extended the definition of strategy in a business context to include both strategy as a plan,

*“a consciously intended course of action” [4]*

and strategy as a perspective,

*“an ingrained way of perceiving and interacting with the world, a company's personality” [4].*

If, in its simplest form a company's strategy is defined as a plan designed to achieve a particular long-term aim, then an innovation strategy can be defined as a plan, which will enable a company to achieve its long-term goals through the use of innovation [2].

*“An innovation strategy helps firms decide in a, cumulative and sustainable manner, about the type of innovation that best match corporate objectives” [5].*

If strategy is defined as a guide for the allocation of resources in order to achieve the company's objectives then:

*“An innovation strategy guides decisions on how resources are to be used to meet a firm's objectives for innovation and thereby deliver value and build competitive advantage. [5]”*

A combination of these two definitions describes an innovation strategy as:

*“an incrementalist, functional, predetermined plan governing the allocation of resources to different types of innovations in order to achieve a company's overall corporate strategic objectives” [2].*

Innovation activities are inherently risky due to the uncertain nature of innovation. They demand significant commitment from the most talented personnel and often require the application of a large amount of resources. Furthermore, a decision by a company to pursue one line of innovation at the detriment of others could have a significantly high opportunity cost.

It is for these reasons that selecting the correct blend of innovation types is vital for the long-term sustainability of a company. The correct functional innovation strategy is required in order to optimally use limited resources to achieve the company's overall strategic objectives.

Furthermore a company's innovation process, systems and personal should be conceptualised, designed and developed to achieve the objectives of the functional innovation strategy. If the functional innovation strategy is not aligned with the overall

business strategy this process and these resources will not be able contribute, successfully to achieving the overall company goals and objectives.

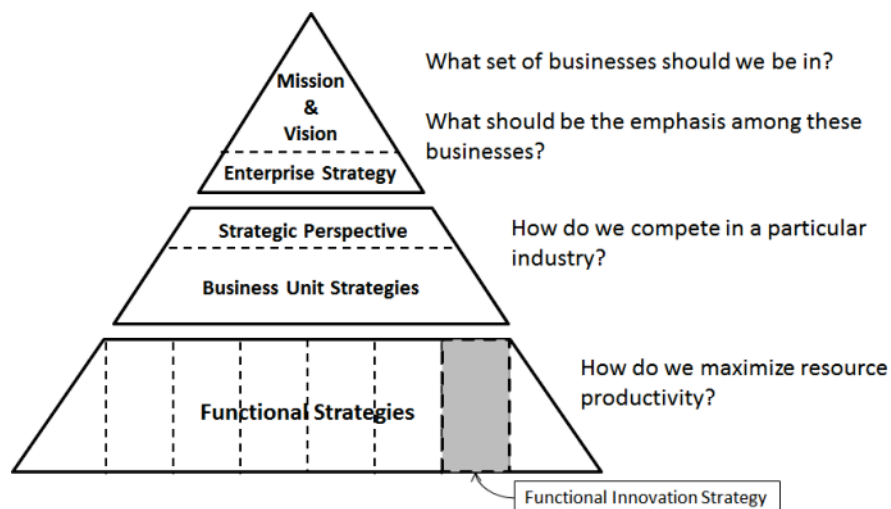
Therefore a functional innovation strategy is different from a traditional technology strategy as it does not describe the future technology direction of a company, but rather identifies the focus of the company's innovation efforts, required to achieve its goals and objectives.

### 3. STRATEGIC ALIGNMENT

Organization alignment practices have been shown to have the biggest gap in the level of excellence between the so called "hall of fame" companies and two other groups of poorer performing companies [6]. This reveals the importance of organizational alignment to the successful performance of a company. At the centre of organisational alignment lies the alignment of a company's strategy and planning process [1].

Strategic alignment can only be achieved by understanding the interactions between different strategies at different levels in a company. The hierarchy of strategies is a way in which these interactions can be understood and managed. The hierarchy of strategies also enables the positioning and alignment of a functional innovation strategy amongst the other business strategies [2].

In Figure 2 the hierarchy of strategies is represented along with the high-level questions each strategic level should aim to answer [7].



**Figure2: Hierarchy of Strategies**

For a functional innovation strategy to be successful it is required to support the business unit strategies and the company's strategic perspective. In turn the company's strategic perspective needs to be aligned with the enterprise strategy and the company's mission and vision. The strategic perspective is the company's "*ingrained way of perceiving and interacting with the world [4]*" so that it is able to compete in its selected businesses/industries.

A similar concept to the hierarchy pyramid in Figure 2 is presented by Kaplan and Norton [6]. The strategic alignment and planning process illustrated in Figure 3 shows strategic alignment between the enterprise and strategic business units and between the corporate level functional strategies and the functional support units (HR, IT, Finance). The

functional innovation strategy and the innovation support unit have been added to Figure 3 to illustrate how innovation strategies can align with other business strategies.

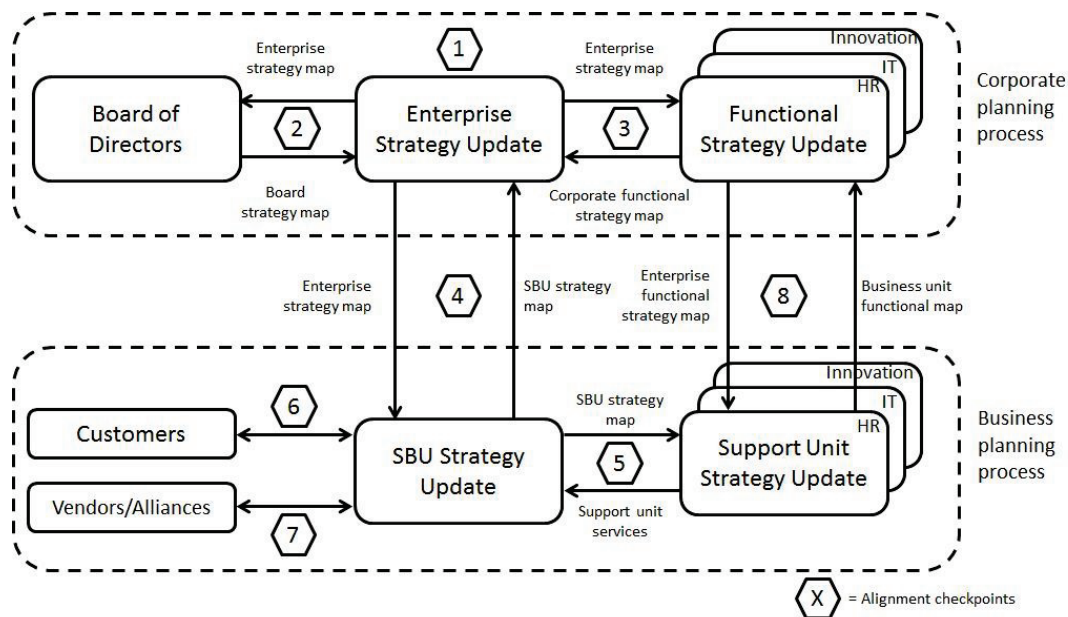


Figure 3: Strategic alignment in the planning process [6]

#### 4. GENERIC STRATEGIC PERSPECTIVES (GRAND STRATEGIES)

The aim of an innovation strategy alignment framework is to guide a company in selecting the most appropriate innovation strategy, which is aligned with, and supports its other strategies. The challenge in developing such a framework is that each company has very specific enterprise and business unit strategies. However, in the literature on strategy, it is possible to identify a set of generic strategic perspectives, also known as “grand strategies”. These strategic perspectives could form the connection and support the alignment between a functional innovation strategy and the other company strategies.

From the literature on strategy a number of ways of classifying a company’s strategic perspective have been identified. In the late 1970s and 1980s generic “*strategy typologies*” were proposed. These became the theoretical basis for grouping different company strategies [8].

The aim of the literature study is to identify these different strategic perspectives in order to determine a set of generic classifications and then to develop a framework which links the generic strategic perspectives to different components of a functional innovation strategy.

##### 4.1 “First to Market” Strategic Perspective

The concept of “first to market” is discussed by a number of sources in the literature. The concept is described by several other phrases including leadership orientation, proactive, early movers, aggressiveness and offensive.

A “first to market” strategy is based on:

*“a strong R&D program, technical leadership and risk taking.[9]”*

Leadership orientation is where the firm aims to be the first to market with a new product or service. This requires significant commitment to creativity and risk taking [10].

A proactive strategy generally leads to innovations, which are radical, inventive and early [11]. Therefore a proactive strategy can be described as a “first to market” strategy.

A company with an aggressive strategic perspective is described as being the advancer in the market and as taking a combative posture to exploit market opportunities. It is also described as being the strategy to become the first mover in the market place [12].

An offensive strategic perspective is described as one designed to achieve technical and market leadership by being ahead of the competitors in the introduction of new products [13].

Porter’s differentiation strategy, also known as an innovation leadership strategy can also be viewed as a “first to market” strategic perspective [14].

#### 4.2 Reactive Strategic Perspective

As with the “first to market” strategy the reactive strategy is also described in a number of ways in the literature. These include a follower orientation, late mover, imitator, reactor and rapid copier [12].

A reactive strategy involves a firm improving on another firm’s innovation so that it can deliver a product or service in high volumes and at low cost [11].

A follower orientation is:

*“where firms aim at being late to market (a second-to-the-market or late-entrant or imitator orientation), based on imitating (learning) from the experience of technological leaders” [10].*

Imitators are described as companies which gear themselves to profit more from an innovation than the company which first introduced the innovation to the market. There are a number of examples of this kind of success including IBM with the personal computer, Matsushita with VHS video recorders and Seiko with quartz watches [15].

#### 4.3 “Niche Player” Strategic Perspective

Roger defines niche players as:

*“companies that employ differentiation in their strategic design, but do so for a very targeted segment of the market” [16].*

Defenders can also be defined as a type of niche player. These companies focus on a narrow product-market domain and their management is highly expert in the company’s limited area of operations [17].

Niche players are also referred to as specialists. These companies spread their resources across a narrow spectrum of the environment and intensely exploit this narrow segment. The opposite of the specialists are called the generalists [18].

#### 4.4 “Cost Reducer” Strategic Perspective

Porter defined four generic strategies. Two of these strategies focus on cost leadership. The first is known as overall cost leadership and the second is known as focus segment cost leadership [14]. Companies pursuing an overall cost leadership strategy seek a competitive advantage across a broad industry segment by offering lower price products and services. Companies pursuing a focus segment cost leadership also attempt to gain a competitive advantage by offering lower price products and services, but across a far narrower set of industry segments [19].

#### 4.5 Customer Orientation

Customer orientation can be defined as the:

*“sufficient understanding of one’s target buyers to be able to create superior value for them continuously. [20].”*

The concept of customer orientation includes a detailed understanding of issues such as the identification of market segments, customer buying habits, price and features preferences and market growth [20].

In a customer-driven strategy, the focus is on uncovering customer needs and wants and then meeting those needs [21]. The marketing, sales and customer services departments play an integral role in a customer orientated strategy as they have the maximum exposure to the client’s needs [22].

#### 4.6 Technology Orientation

A technology orientated strategy is aimed at joining and winning a technology race. As this is a highly competitive type of strategy, companies aim to invent new technologies and establish these technologies as the market standard [22].

Gatignon and Xuereb define a technology orientated company as one which has the:

*“ability and the will to acquire a substantial technological background and to use it in the development of new products.[20]”*

#### 4.7 Summary of Generic Strategic Perspectives

In summary, the generic strategic perspectives, which were identified in the literature, are presented in Table 1.

Each author has a different way of describing the strategy. Based on the explanations provided in the literature the strategy terms were grouped and given a group name. “Leaders”, “proactive” and “offensive” were all grouped under the “first to market” strategy.

	Generic Strategic Perspectives					
Author	First to Market	Reactive	Niche Player	Cost Reducer	Customer Orientation	Technology Orientation
Ciptono [10]	Leaders	Followers	-	-	-	-
Gilbert [11]	Proactive	Reactive	-	-	-	-
Ansoff [9]	First to market	Follow the leader	-	-	-	-
Freeman [13]	Offensive	Imitative	-	-	-	-
Miles [17]	Prospector	Reactor	Defender	-	-	-
Porter [14]	Product differentiation	-	Segment cost leadership	Overall cost leadership	-	-
Lambkin [18]	-	-	Specialist	-	-	-
Roger [16]	First to market	Rapid follower	Niche player	-	-	-
Lynn [21]	-	-	-	-	Customer orientated	-
www.wdc-econdev.com [22]	-	-	-	-	Customer driven	Technology driven
Gatignon [20]	-	-	-	-	Customer orientation	Technology orientation

**Table 1: Summary of generic strategic perspectives from the literature**

Six generic strategic perspectives have been identified in the literature. These strategies are not mutually exclusive and there may be situations where a company adopts a combination of some of these strategies. However there are some strategies which are exclusive and cannot be combined. For Example, “first to market” and reactive strategies cannot be combined and a company needs to decide between one and the other. The connections between these generic strategies are described in the development of the innovation strategy alignment framework.

## 5. INNOVATION STRATEGY ALIGNMENT FRAMEWORK

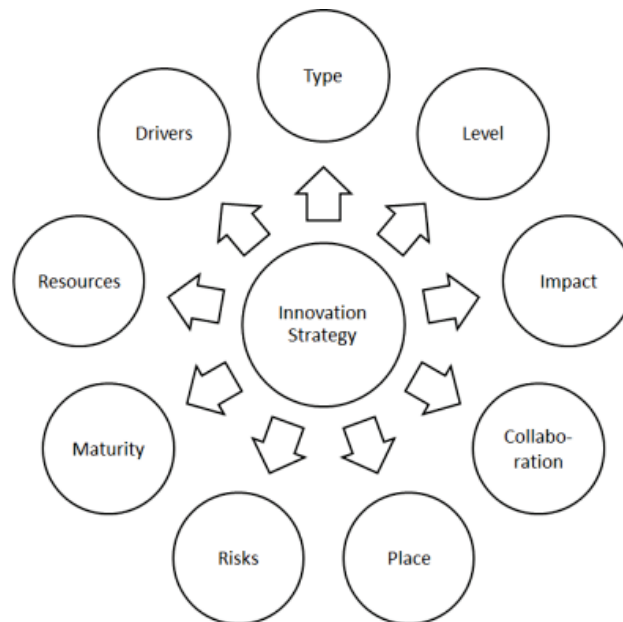
In this section a framework to align the functional innovation strategy with the strategic perspective of a company is introduced. The innovation strategy alignment framework connects the generic strategic perspectives, identified in the previous section, with the components of a functional innovation strategy. Two types of relationships exist in the framework:



1. Strategy to strategy: Generic strategy connected to another generic strategy.
2. Strategy to component: Generic strategy connected to a functional innovation strategy component.

### 5.1 Components of a Functional Innovation Strategy

The components of a functional innovation strategy have been defined in a previous paper written by the authors. Nine different components of a functional innovation strategy were originally defined (Figure 4). Only two of the nine components were used as the focus of this paper. These two components are innovation type and innovation level.



**Figure 4: Nine components of a functional innovation strategy [2]**

Three main innovation types can be defined. These are product innovation, process innovation and strategic or business model innovation. The level of innovation can be viewed as the newness of an innovation. The newness of an innovation can be described on a continuum from radical innovation to incremental innovation [2].

### 5.2 Strategy to Strategy Connections

The relationship between two generic strategic perspectives can either be complimentary or non-complimentary. An example of a strong complementary relationship is the relationship between the reactive strategic perspective and the cost reducer strategic perspective. These two strategic perspectives complement each other well, as one of the key ways a strategically reactive company can gain a competitive advantage is by introducing lower costs into the market.

Other relationships, like that between a reactive strategic perspective and a “first to market” strategic perspective, are totally non-complimentary and therefore are not even considered to have a weak connection.

### 5.3 Strategy to Component Connections

The relationships between the generic strategic perspectives and the components of a functional innovation strategy are the main value-add of the framework. These



relationships describe how a company should align its functional innovation strategy with its specific strategic perspective.

An example of a strong relationship between a generic strategic perspective and a component of a functional innovation strategy is the connection between the “first to market” strategy and the radical innovation level. This strategy has been described as having a high risk of failure [9]. This high risk of failure is also a characteristic of a radical innovation due to the newness and high levels of uncertainty. Therefore from a strategic alignment perspective, a company which has a “first to market” strategic perspective should have radical innovation as an important component of its functional innovation strategy.

### 5.4 Relationships in the Innovation Strategy Alignment Framework

In this section of the paper the individual relationships in the framework are described. In the matrix in Figure 5 strengths for each of the relevant relationships are presented (W=Weak, M=Medium & S=Strong). For each of the relationships in the matrix with an asterisk (\*) next to the letter, evidence is presented, in Table 2, for the suggested strength of the relationship. When there is no relationship between two entities in the matrix a N/A denotes that the relationship is “Not Applicable”.

The matrix was constructed using the generic strategic perspectives on the X and Y axis (as there are relationships between the different strategic perspectives) and the two components of a functional innovation strategy, (innovation type and innovation level) which were discussed in section 5.1.

	Strategic perspective						Type of innovation			Level of innovation	
	First to market	Reactive	Niche player	Cost reducer	Technology orientation	Customer orientation	Product	Process	Strategic	Radical	Incremental
First to market		N/A	W*	W*	S*	M*	S*	M*	S*	S*	M*
Reactive			M*	S*	M*	S*	W*	S*	S*	W*	S*
Niche player				M	M	S	S	W	M	W	S
Cost reducer					W	M	M	S	M	W	S
Technology orientation						N/A	S	M	W	S	W
Customer orientation							S	M	M	S	S

Figure 5: Relationship Matrix

In Table 2, evidence is provided for the relationships between the “first to market” and reactive strategies and the other generic strategic perspectives and innovation strategy components.

Relationship Name	Relationship Type	Relationship Strength	Reasoning
First to Market/ Niche Player	Strategy to Strategy	Weak	High-levels of uncertainty with first to market situations means the specific niches are not yet well understood and therefore companies tend to be more generalists [18].
First to Market/ Cost reducer	Strategy to Strategy	Weak	A First to Market strategy requires an intense research effort, supported by major development resources and a high R&D investment ratio [9]. Early entrants to a market try gaining a competitive advantage by exploiting their first mover status and not through competitive efficiency [18].
First to Market/ Technology Orientation	Strategy to Strategy	Medium	In a Customer Orientated strategy the innovation efforts are typically initiated by a customer expressing a need [21]. While it is important for a company with “first to market” strategy to understand the needs of the target market segment, this company cannot wait for a customer to express those needs as this may jeopardize its first mover advantage. Therefore a company with a “first to market” strategy has only a medium strength connection with the customer orientation strategic perspective.
First to Market/ Product Innovation	Strategy to Component	Strong	“First to market” with a product can provide a competitive advantage in a number of ways. These include proprietary and patented products, monopolising scarce resources (Example: landing slots at major airports) & the high cost of customers switching products for those of later entrants [11].
First to Market/ Process Innovation	Strategy to Component	Medium	Customers are generally not exposed directly to process innovation. They could however experience the benefits through reduced costs, improved quality and/or shorter lead times. However we have seen that these improvements are not the main focus of a company with a “first to market” strategic perspective and therefore the strength of the relationship is medium.
First to Market/ Strategic Innovation	Strategy to Component	Strong	Two of the more common strategic innovations are unusual strategic partnerships and innovative new business models [23]. A company wanting to gain a competitive advantage through innovative strategic partnerships would want to be first to market with such partnerships; so that it has the choice of strategic partners and may control scarce resources [11].
First to Market/ Radical Innovation	Strategy to Component	Strong	Being first to market requires a strong commitment to creativity and risk taking [10]. Furthermore: <i>“Innovations that are radical, inventive, and early have some characteristics in common. [11]”</i> This relationship between being first and having high levels of risk is what drives the strong relationship between the “first to Market” strategy and radical innovation.
First to Market/ Incremental Innovation	Strategy to Component	Medium	Being first to market does not always require a radical innovation. A company can be first to market with significant improvements to its current products. However with the company’s main focus being “first to market”, it is likely that fewer resources will go towards incremental innovations and more towards radical innovation.

Reactive/ Niche Players	Strategy to Strategy	Medium	When a product or market is already established a reactive company, coming late into that market can apply a niche strategy in order to be competitive. The high degree of certainty in established markets also attracts a new breed of specialists to exploit marginal areas of the niche [18].
Reactive/ Cost Reducer	Strategy to Strategy	Strong	A Reactive strategy requires a strong commitment to competitor analysis and intelligence and to cost cutting and learning in manufacturing [10]. As the market size reaches its saturation point and only minor infrequent changes are experienced a premium is placed on competitive efficiency, which favours the cost reducers [18].
Reactive/ Technology Orientation	Strategy to Strategy	Medium	A reactive strategy requires intensive technical effort but only a moderate competence across a spectrum of relevant technologies. It is vital for a reactive company to be able to respond rapidly in product development [9].
Reactive/ Customer Orientation	Strategy to Strategy	Strong	A successful reactive company needs to have an in-depth understanding of the needs and behaviours of the target market. In this way it is able to identify shortcomings in the current market offerings and rapidly improve on these shortcomings to gain market share. A Reactive company can gain a competitive advantage by quickly identifying what customers do not like and then making the necessary improvements.
Reactive/ Product Innovation	Strategy to Component	Weak	Company's which are geared to be reactive have to know what products their competitors are launching and be able to copy, but do not need to focus too much on product innovation [11].
Reactive/ Process Innovation	Strategy to Component	Strong	If reactive companies do not improve on competitors' products they can gain a competitive advantage through higher volumes and lower costs. This can be achieved by process innovation to tune production and delivery systems [14].
Reactive/ Strategic Innovation	Strategy to Component	Strong	If the products developed by reactive companies are the same or similar a competitive advantage has to be gained from a strategic innovation which focuses on issues such as marketing or strategic partnerships.
Reactive/ Radical Innovation	Strategy to Component	Weak	Reactive companies do not generally have a strong focus on radical innovation. It is not that radical process or strategic innovations are not possible, but the company's culture, strengths, policies, systems and processes all are designed to react to innovations from elsewhere and therefore hinder radical innovations which, by definition are highly new.
Reactive/ Incremental Innovation	Strategy to Component	Strong	A reactive strategy requires a strong commitment to reverse engineering in order to understand how a competitors products work [10] and then to making incremental improvements to meet customers' needs. Incremental innovations are also highly successful for process optimisation activities, which can provide a cost competitive advantage for a reactive company.

**Table 2: Reasons for the strengths of the relationships**

## 6. DECISION FRAMEWORK FOR ALIGNING THE INNOVATION STRATEGY

In this section a part of the overall decision framework is presented (Figure 6). The part presented focuses on the "first to market" strategic perspective. A similar decision framework exists for the reactive strategic perspective.

The decision framework provides a practical way in which a company can, based on its strategic perspectives; decide on the correct blend of innovation type and level for its functional innovation strategy. The functional innovation strategies presented in Figure 6 are deduced from the relationships presented in the innovation strategy alignment framework in Figure 5.

The decision framework was constructed by analysing a combination of the relationship strengths and then making a decision regarding the appropriate balance in the two functional innovation components.

For example if a company had a “first to market” and customer orientated strategic perspective than their functional innovation strategy should focus strongly on product, strategic and radical innovation and have a medium focus on incremental and process innovation. The strong product focus is required by both the “first to market” and customer orientated strategies, while the strong incremental focus comes mainly from the need to be Customer Orientated.

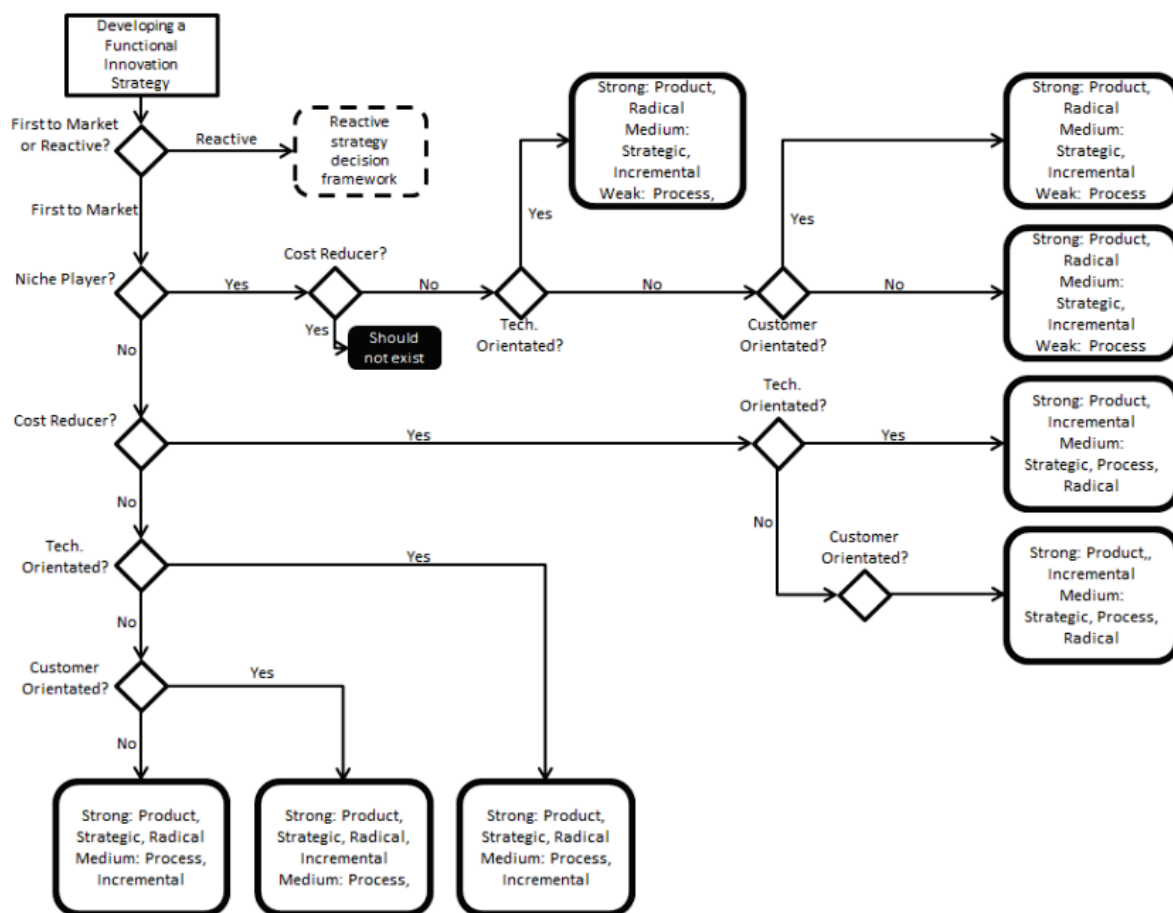


Figure 6: Part of the decision framework

## 7. INITIAL APPLICATION OF DECISION FRAMEWORK

In order to do an initial test of the application of the decision framework, AIG insurance company was selected. The mission statement of the company was analysed and a strategic perspective of for company was deduced from the mission statement. Based on the strategic perspective and using the decision framework, a high-level functional innovation strategy, focusing only on the two innovation strategy components currently in

the innovation alignment framework, was deduced. This functional innovation strategy was then tested by gathering information about the company and determining, from the information, what are the actual innovation focus areas of AIG.

## 7.1 AIG Insurance

AIG is a multi-national financial services company, which has its roots in the insurance industry in the US. AIG's mission statement is:

*“As a global financial services organization, we have committed our resources to developing products and services that address the needs of our clients as well as promote a corporate culture that values integrity, diversity, innovation and excellence. [24]”*

Based on this mission statement and its focus on product development, customer needs and innovation, the strategic perspective of AIG would seem to be a combination of First to Market and Customer Orientation. Using the decision framework in Figure 6 the functional Innovation strategy that may align best with the company's strategic perspective is as follows:

- **Innovation Type:** Strong focus on product and strategic innovation with only a medium focus on process.
- **Innovation level:** Equally strong focus on both radical and incremental innovation.

The following statements were extorted from AIG's annual report and show a strong focus on the components deduced in the high-level functional innovation strategy.

*“These are examples of the innovations that maintain customers and drive new business.”*

*“Chartis clients benefit from...a tradition of product innovation and expertise. In 2010, Chartis introduced more than 200 products and services worldwide.”*

*“Chartis U.S.'s business strategy focuses on growing high-margin, less capital intensive lines of business, including segments of consumer lines, specialty markets and its multinational business, while leveraging its distribution relationships, innovation, national footprint and extensive product offering.”*

*“Implementation of such strategies has resulted in product design innovations to meet customer needs. [24]”*

These statements suggest that there exists, in AIG, a strong focus on product and strategic innovation (distribution relationships) as described in the deduced functional innovation strategy.

## 8. CONCLUSION

This paper aimed to answer three questions:

1. Why is it important to align a company's innovation strategy with its overall business strategy?
2. What should an innovation strategy alignment framework consist of in order to assist a company with innovation strategy alignment?

### 3. How could such a framework be applied?

The first question is addressed by giving the definition of a functional innovation strategy and explaining that the functional innovation strategy guides how the innovation process is implemented and how resources are distributed between different innovations. Without the strategic alignment companies will be implementing innovation processes and systems and deploying innovation resources in a way that may or may not support their overall business objectives.

The second question is addressed by presenting the innovation strategy alignment framework, which shows the relationships between generic strategic perspectives and two of the components of a functional innovation strategy.

Question three is addressed by developing the decision framework, which based on the alignment framework, provides a practical way for a company to deduce an appropriate and aligned functional innovation strategy.

The research still has several shortcomings. These include:

- The six identified generic strategic perspectives still need to be shown to be the only ones that exist.
- The alignment framework currently only includes two components of a functional innovation strategy.
- The validation of the decision framework is done at a superficial level and requires a far more in-depth and scientific approach.

Based on these shortcomings a following future work is recommended:

- Further investigation into generic strategic perspectives.
- Extension of the alignment framework to include all the components of a functional innovation strategy.
- Extension of the decision framework based on the extension of the alignment framework.
- Detailed and scientific validation of the final alignment framework and decision framework.

A practical way of aligning a company's functional innovation strategy with its strategic perspective is a possibility and with the completion of the tasks listed above, companies will have a mechanism to focus their innovation resources and efforts on achieving their long-term company goals.

## 9. REFERENCES

- [1] Hough, J., Strickland, A.J., Gamble, J.E., Thompson, A.A. 2008. *Crafting and Executing Strategy*, South African Edition, McGraw-Hill.
- [2] Katz, B.R. du Preez, N.D. Schutte, C.S.L. 2010. Definition and Role of an Innovation Strategy, SAIE conference proceedings.
- [3] Dodgson, M., Gann, D., Salter, A. 2008. *The management of technological innovation: strategy and practice*, 2<sup>nd</sup> Edition, Oxford University Press.
- [4] Ghoshal, S., Mintzberg, H. 2003. *The strategy process: concepts, contexts, cases*, Pearson Education.
- [5] Mintzberg, H. 1987. The Strategy Concept I: 5 P's for Strategy, *California Management Review*, Fall, pp 11-24.

- [6] **Kaplan, R.S., Norton, D.P. 2006.** Alignment: using the balanced scorecard to create corporate synergies, Boston: Harvard Business School Press.
- [7] **Hofer, C. W., Schendel, D. 1978.** *Strategy formulation: Analytical concepts*, St. Paul, MN: West Publishing.
- [8] **Parnell, J.A. 2010.** Competitive Strategy and Performance in Mexico, Peru, and the United States. *Journal of Centrum Cathedra*, Vol. 3, No. 2, September, 150-165.
- [9] **Ansoff, H.I., Stewart, J.M. 1967.** Strategies for a technology-based business, *Harvard Business Review*, (November-December), 71-83.
- [10] **Ciptono, W.S. 2006.** A sequential model of innovation strategy - Non-financial performance links, *Gadjah Mada International Journal of Business*, May-August, Vol. 8, No. 2, pp. 137-178.
- [11] **Gilbert, J.T. 1994.** Choosing an Innovation Strategy: Theory and Practice, *Business Horizons*, November-December.
- [12] **Akman, G. Yilmaz, C. 2008.** Innovative capability, innovation strategy and market orientation: an empirical analysis in Turkish software industry, *International Journal of Innovation Management*, Vol. 12, No. 1 (March) pp. 69-111.
- [13] **Freeman, C. Soete, L. 1997.** The economics of industrial innovation, 3rd Edition. MIT Press.
- [14] **Porter, M.E. 1983.** The technological dimension of competitive strategy. *Research on technological innovation, management and Policy*1, 1-33.
- [15] **Teece, D. 1986.** Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy* 15(6), 285-305.
- [16] **Roger, A.F. 2001.** *Manager's guide to strategy*, McGraw-Hill Professional.
- [17] **Miles, R.E. Snow, C.C. 1978.** *Organizational Strategy, Structure and Process*. New York, NY: McGraw-Hill.
- [18] **Lambkin, M. 1998.** Order of entry and performance in new markets. *Strategic Management Journal*, 9 (special issue), 127-140.
- [19] **Christensen, C.M. Burgelman, R.A. Wheelwright, S.C. 2009.** *Strategic Management of Technology and Innovation*, 5th edition, McGraw-Hill.
- [20] **Gatignon, H. Xuereb, J.M. 1997.** Strategic orientation of the firm and the new product performance, *Journal of Marketing Research*, February, Vol. 34: 77-90.
- [21] **Lynn, G.S. Mazzuca, M. 1998.** Learning the critical success factor in developing truly new products. *Research Technology Management*, 41(3), (May/June), 45-53.
- [22] Strategising innovation management, <http://www.wdc-econdev.com/strategizing-innovation-mngmnt.html>. July 2010.
- [23] **Hamel, G. 2000.** *Leading the Revolution*. Boston: Harvard Business School Press.
- [24] **AIG Annual Report, 2010.**