An Overview of Strategy Development Models and the Ward-Rivani Model

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Abstract

Numerous models for developing strategy, defining and aligning competitive advantage have been proposed over the years (and even centuries if we consider Arian, Sun Tzu etc.) including probably the most famous of all, the 5 forces model by Porter (P5F). With publications in the field of strategy now in the thousands it is difficult to get an overall picture of how to classify and appreciate strategy tools and models.

Mintzberg et al. have developed schools of thought to help alleviate and categorise this problem but this approach lacks a comparison of the models found in industry e.g. BCG, 7S McKinsey, ANSOFF etc.

Consequently at academic level (but not only) we see models like P5F, etc. predominate while tools like SWOT, PEST, ARC etc. populate the consultancy arena and operative levels of the organisation. The purpose of this paper is therefore to provide an overview and comparison of selected models used in the development of business strategy together with *a brief discussion of schools of strategic thought.*

Judging by the bibliography searched and, perhaps, the major appeal of this paper, is that a selection of common strategy development models and tools are compared systematically for the first time in one single paper. In fact it was found that models, at least in Italy, are rarely compared and if they are, it is on a one-to-one basis. The intent is to at least start to bridge and compare models and show how new models can be realised.

The paper closes with the proposal of a new model, the Ward-Rivani model, which does not claim to be the most universal rather a complementary and perhaps useful platform for future work on strategy.

Keywords: Strategy, Models, Porter, Ward-Rivani model

Introduction and Background – The strategic approach to Industry Analysis

Companies are often chased internally or externally to examine their strategic position within a given business, marketplace or industry. To this end a multitude of theories and models have been developed (Koch, p. xiii, 2000) with the intent to determine, develop and disseminate systematically competitive advantages for the company. The overall intended outcome is to strengthen the company's position in industry and help maintain, if not improve, their competitive position within it.

In this context, perhaps the most famous of all models has been Michael Porter's five forces model (Porter, 1980). This model has become a standard of comparison for most (if not all) new theories and models that look at the external environment of a company and therefore the industry in which the company competes.

Inspite of this 'standardisation' the authors found that new models are rarely compared across a cluster of other models and indeed comparisons are usually limited to 'look-alikes' or 1-to-1. Moreover, the same authors have found very little (if any) intentional linkage between forces and tools. A good starting point for an overview of models can be found at the Value Based Management website (www.valuebasedmanagement.net).

This paper sets out to provide a comparison between 8 models, starting from Porter's 5F model (P5F) and ending with the SWOT model. These models were chosen because of their

popularity in Italy and compatibility with one or more Porters five forces. However, similar popularity has been found in both academic and non-academic environments.
While developing this comparison it also became evident that new models can be generated from this comparison and therefore in this sense the paper provides a framework for future and broader or even narrower models.
To this end the authors propose a new hypothetical model, the Ward-Rivani model, that attempts to combine as many of the main criteria found across models and with the goal to provide a complete 'strategy package'.
Another key finding in the development of this paper has been the almost total lack of a complete or partial view of how the P5F model, underlying tools and schools of strategic thought are linked. In fact we found very little trace of links between these three areas and the proposed model provides an overview of how these three levels are linked.
In the work that follows we have attempted to achieve the following objectives:

- Explain what the P5F model is, what it is intended for and its position in company strategy development
- What tools can and are used by managers and upper management and how these link to the forces described by Porter. We have taken Italy as the reference country because of greater familiarity with the national economic and business world (Rivani, 2005).
- Tackle and link schools of thought to the P5F model and relative tools in order to leverage all three of the above mentioned levels of strategy development and deployment.
- Provide a convenient and concise comparison of models and show how new models can be generated or old ones adapted-updated.

The Five Forces Model of Porter

The Five Forces Model (P5F) and the framework behind it dates back to the early 80s and was the work of Michael Porter, a scholar working and teaching at the Harvard Business School.
This model (see figure 1), as declared by its creator, was able, at that time, to fill a void, in the management field corresponding to the development of a new discipline, *Competitive Strategy*. It came at a time when down-sizing, re-engineering etc. were elements of strategic choice. The intent of Porter was to provide an overall model that would help enterprises realize the impact of external scenarios (that he calls forces) on their overall performance.

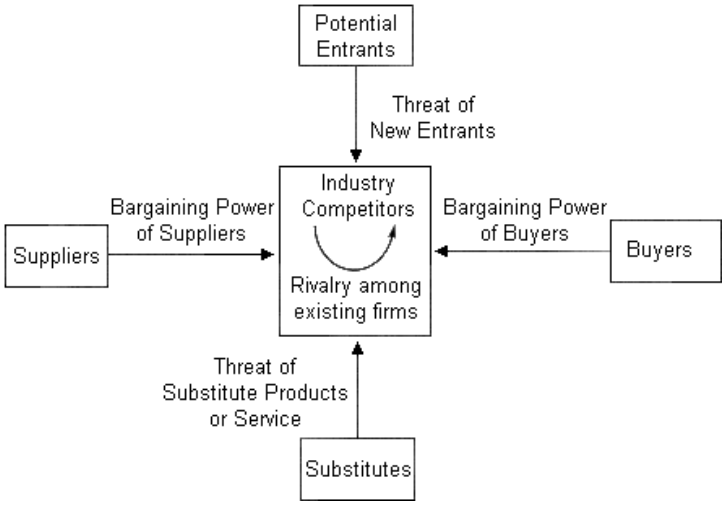

Figure 1 – The five forces model by Michael E. Porter

One fatal attraction of the P5F model was that it finally allowed companies to assess simultaneously the industry in which it was competing thus indirectly understanding its competitors, and subsequently decide and implement a competitive strategy. It also coincided with a marked acceleration of competition in the USA. It was, and still is considered to be a unique, simple, easy-to-understand, intuitive, structured framework for company strategy.
The P5F model also helps develop a competitive company position along side adequate strategies to create value and therefore outperform its rivals: in essence it provides the helicopter view of the industry environment in which the company operates and competes.
The five forces of the Porter model are summarized as follows:

- **F1 - Threat of new entrants:** this is the easiness with which a new company could enter the industry thus impacting the profitability of the industry and the competitive position of the enterprise. This force should qualitatively and, ideally, quantatively measure the status of Barriers of Entry especially those factors that make it costly for companies to enter the industry (Hill et al. 2001). Examples of significant entrance barriers (Bain, 1956 cited by Hill et al. 2001) are:
    - Brand Loyalty (Clifton et al., p.95, 2003)
    - Absolute cost advantages
    - Economies of scale (Saloner et al, p.340, 2001)
    - Switching costs (Hill et al. 2001)
    - Government Regulation (Hill et al. 2001)

  F2 - Rivalry among established companies (Grant, pp.78-80, 2002)**:** This force evaluates the overall competitiveness of the industry. It takes into consideration the status of the players, their size and how the industry's characteristics foster or discourage the creation of competition.
  The drivers of this force can be identified as follows (Hill et al. 2001):
    - Concentration
    - Industry growth and demand
    - Product/service differentiation
    - Ratio of fixed costs to variable costs
    - High exit barriers
    - Diversity of Competitors
    - High strategic stakes

  F3 - The Bargaining power of Buyers (Johnson and Scholes, pp.117-118, 2002)**:** By buyers one intends both the clients (e.g. trade partners) and customers (e.g. end-users), Clearly the bargaining power of this group and force establish, among other things, price and product/service expectations.
  F4 - The Bargaining power of Suppliers (Johnson and Scholes, pp.117-118, 2002)**:** Suppliers are nowadays very much integrated in industry especially when corporations, multinationals etc have strategic supplier agreements in place. Nevertheless suppliers can condition industry and company performance, especially those that supply raw materials or fundamental parts (e.g. Intel, Shell etc.), and are therefore considered quite rightly as a key element in the P5F model.
  F5 - Threat of Substitutes (Cullen, pp.162-181, 2001)**:** The cloning of products and the possibility that substitutes flood the market is a real threat to an industry, especially if the substitutes are of better quality and lower price. This is especially true for products that compete on price and have limited differentiation. In the context of this paper one considers this fifth force particularly true for the final stages of the PLC i.e. company vunerability increases in the third (maturity) and final (decline) stages of product life cycle.

Many authors have analysed the P5F model or one or more of it's forces, starting from a position of amiration and total acceptance to one of need of renovation. Based on over 170 publication searches[1], four stages appear to have surfaced since its arrival in the early 80s, this is depicted below:

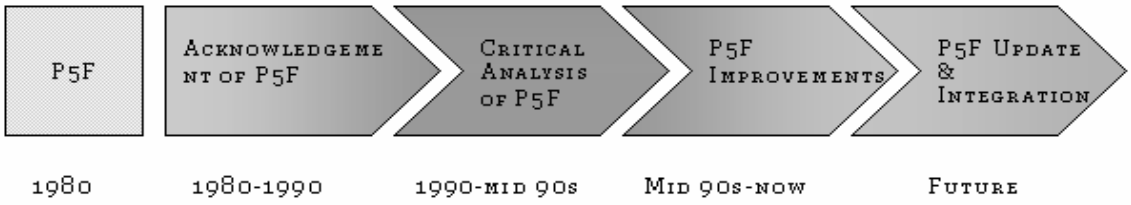

Figure 2 – The P5F model from Introduction to Integration

The fact that it has not been scrapped or replaced by other models is testimony to its appeal and robustness. However, a lot of academics have criticized this model arguing that certain elements are not contemplated and that such a flaw merits at least another force.

For example, Grove (2001, p. XX) proposes the addition of a sixth force to include Government and Legislation levers. Others suggest the introduction of the so called '**Complementor'** (Hill et al. 2001, p.82), a sort of *middleman* that may hinder or favour a company, just as a in-store salesman conditions the customer in a shop. They argue that complementors are able to influence the marketability of the product and hence also the competivity of an enterprise.

Some scholars signal an inadequateness of the model due to the birth and dissemination of new technologies e.g. internet, biotechnology etc. or view the P5F model as a static framework that is incapable of capturing the changes of the industry or adapting multinational strategy to local (national) organization (Cullen, pp.282-284, 2001).

Porter, in his book "Competitive Strategy" (2004, p.XX) argues that the model can still hold for the emerging new technological economies, as it changes only the drivers of the forces.

Although the authors of this paper agree that internet, for example, conditions the drivers of the forces (e.g. F3 and F4) it is equally true that internet creates a new external overlapping and virtual environment. Similarly globalization changes the external environment by expanding it just like dough can either be a loaf of bread or spread out like the base of a pizza.

Porter also argues that criticism of his P5F model is rooted in a general misunderstanding of the model and, in the specific case of change, he says that "*the framework reveals the dimensions of change"* (Porter, 1980, p. xiii). In the same text he indeed dedicates several chapters that deal with a learning and changing environment, thus we consider it to be unfair to say that Porter does not take into account the factor of change. However, rather than see the expansion of the environment the dimensions of change act on the ingredients, *not how thick or spread the dough is.*

Porter's model provides a general overview of the external environment but how high (and good) the view is, depends not only on the quality of the analysis (i.e. completeness of drivers) and the capability of company management to use it but also the fostering of the *helicopter view* (or even better a *satellite view*) of both the present and future external environment.

These *views* provide a powerful assessment tool for a company's upper management, almost as if the noise of an electrical signal can be removed with different levels of attenuation without modifying the behaviour of its waveform. Clearly the higher the view the less practical value for lower levels in the organisation (e.g. middle or junior managers). Indeed in

[1] A selection of which is provided in the bibliography. After this search a total of 46 publications were analysed.

our experience, at least in Italy, it is quite worthless to promote the helicopter (or higher) views, as the P5F model does, without providing also the necessary (lower level) and more operative tools. As an example of this discrepancy we may take the case of communication. Predicting and preaching the importance of effective communication without providing adequate tools like video conferencing, face-to-face single or group meetings, specialist communication training etc. inevitably leads to a mismatch between the overall goal (e.g. better performance) and everyday achievements necessary to reach that goal.
This leads us to an important conclusion, summarized and visualized in figure 8.
In order for the complete and durable deployment and dissemination of a strategy it is essential that three layers of action and view are in place. That is to say external environment monitoring (as in the P5F model), the tools (SWOT etc.) and strategic school of thought (Positioning school etc.) all need to be synchronized in order to maximize company (and industry) performance.

From Porter to other models-tools

Several Italian companies (see table a1 in appendix) were contacted, most of which were family or locally run but nevertheless either International in terms of customer base or local branches of multinationals. It was found that managers and upper management were unaware of the multitude of strategic tools, models etc. available and in many cases they did not realise that they were evaluating one or more of the forces described by Porter. There was also a lot of evidence that specific models like SWOT, BCG, Parts of the 7S model etc. were dominant in company culture and usage, essentially because external consultancy agencies had used and disseminated them for their past analysis of the company and relative industry. In most cases individuals within the company were aware of at least one of the eight models cited (see table 6) and actually were pushing for their application to align company strategy with industry competition. However, at a upper management level (i.e. owner level) there was no direct evidence that models (or parts of them) had been selected and compared before deliberately or subconsciously employing them.
During several interviews when the interviewees (usually upper or middle managers) realised that they were using unknowingly tools to strengthen company position they were either flattered or surprised to know that these tools were used by the competition or in the company.
Clearly Porter's model is not the only model used by companies to assess their competitiveness and industry environment, and indeed many great consultancy companies have been formed on the basis of this fundamental need. The difference is that these companies have satisfied a need by lower levels in the enterprise, that is, to fill the gap between the P5F model and school of thought. Not surprisingly do we see these tools or models being much more operative and therefore practical and/or deterministic. Surprisingly it was found that such tools and models often took on a much higher view of the industry and even compete or replace the P5F model. We believe that this probably derives from the nature and culture of the enterprise, which as stated, was more family-run minded and managers knew very little else.
Further, according to the authors of this paper, the essential difference between the P5F model and other models is that the first provides the overall or *helicopter view* (and without other models-tools is also poor in detail and pretty worthless) while the other models take a much more closer look at inside one or more of the 5 forces. In some cases they focus, albeit generally, on the drivers, e.g. the 3C model (Ohmae).
In general one may state that the forces and relevant models are leveraged in three ways:

1. Defensively: The models are used to protect and conserve the approach and culture of the enterprise.

2. Offensively: The models are used to drive the correct offensive measures and thus attack the competition.
3. Exploiting change: Especially by anticipating trends before the competition does or riding the waves as soon as possible.

We will return to this finding later in the paper but for the time being it may be said that companies will often recognise the P5F model in their firm they are much more inclined to refer to specific models. This is probably due to the need to picture scenarios quickly and effectively and solve the fundamental issues. The downturn is that the actions tend to be stand-alone and are not integrated with the overall view of the industry, which is what, in our opinion, the P5F ends up doing.

We will now endeavour to describe a selection of models to emphasise the difference between *satellite, helicopter and battleground* views.

The models have been selected on the following criteria:

- Degree of acceptance and acknowledgement by companies and managers
- The flexibility, durability and applicability in-field
- Their notoriety and diversity
- Their relationship with one or more of the P5F model forces.

The Ansoff Matrix

The Ansoff Matrix is a marketing tool that was first published in the Harvard Business Review in an article called 'Strategies for Diversification' (1957). It is used principally by marketers with the objective of growth and may be correlated to at least 2 of the five forces, namely rivalry and threat from entrants. Although the intent is not to monopolize it must be said that in order to govern the rivalry and entrant forces, a dominant position in the marketplace and industry is needed. It may also be seen as an aspect of counteracting the substitutes force. The Ansoff matrix is particularly strong in those enterprises where market-pull is the predominant way of competing. In this sense it promotes a battleground-helicopter view. The matrix (shown in figure 3) consists of four quadrants as follows:

1. Market Penetration

Here existing products are marketed more effectively to existing customers. Hence revenues are increased by, for example, promoting the product, repositioning the brand, and so on.

2. Market Development

Here the existing product range is launched in a new market. This means that the product remains the same, but it is marketed to a new audience. Exporting the product, or marketing it in a new region leads to the development of new markets.

3. Product Development

This is where new products are marketed to existing customers. Here the scope is to develop and innovate new product offerings to replace existing ones. A good example is when existing models are updated or replaced and then marketed to existing customers e.g. as in the car industry.

4. Diversification

This is where completely new products are marketed to new customers. There are two types of diversification, namely related and unrelated diversification. Related diversification means that one remains in a market or industry with which one is familiar. For example, a foodstuff or beverage in the food industry. Unrelated diversification is where the enterprise has little or no previous industry or market experience. For example a soup manufacturer invests in the rail business.

Product / Market	Present	New
Present	Market Penetration	Product Development
New	Market Development	Diversification

Figure 3 – The Ansoff Matrix

BCG Growth-Share Matrix

The BCG matrix is the oldest (dating back to the 70s) and perhaps most renowned of all the matrices. Based on our experience it is perhaps the most common portfolio matrix to be taught around the world.

The BCG Matrix, like the Ansoff Matrix, is generally used to analyse the standing of single business unit or company enterprise. It can, however, be extended to include more than one SBU[2] as in the case of business portfolio analysis. In this sense it provides a *helicopter view.*

The analysis is based on the combination of two dimensions: Business Growth and Market Share. The idea is that the bigger the market share the product has, the more cash it can earn, and the faster the product growths, the more investments are needed. The BCG Matrix (www.bcg.com) tackles four types of scenario: *Star, Cash Cow, Dog* and *Question Mark*, as shown below.

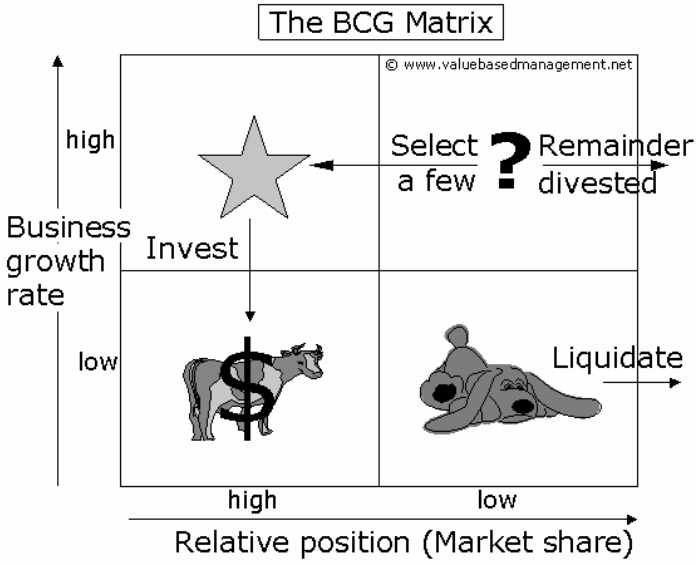

Figure 4 – The BCG Matrix

The creation of value of a company, following this model, is given from the best composition of the product portfolio of it. Hence it may be considered as a useful tool to counteract the substitutes and rivalry forces. The scope in the long-term is to ensure value creation by

[2] SBU – Strategic Business Unit or division

combining product offering while generating the largest amount of cash at the lowest level of capital investment. In this way the same tool highlights those products that demand high investment efforts for low-growth products (valuebasedmanagement.net, 2004) and that should be avoided

7S McKinsey Model

The 7S McKinsey model is essentially a Value Based Management (VBM) model that is intended to provide a company with a framework with the intent generate value within its overall organisation. It is more general and holistically conceptualised when compared to the previous two models and closer to the generic view of the model of Porter. However, with respect to the P5F model it takes into account both the internal and external environments. The model considers the organization of a company as a mix of 6 dimensions that function around a seventh one, i.e. *the Shared Values* of a Company (see figure 5 below).

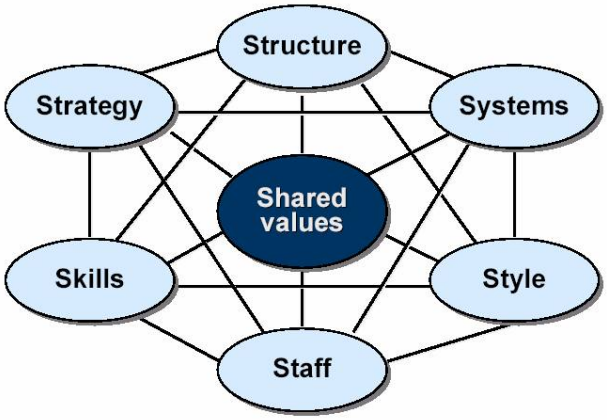

Figure 5 – The 7S McKinsey Model

The six dimensions are: *Strategy, Structure, Systems, Style, Staff and Skills* (valuebasedmanagement.net, 2004). The Strategy is the only dimension that takes into consideration the external environment like competition and customers although it could be argued that at least the *Structure* dimension should (could) reflect the external ambient as well. It provides a mix between the *helicopter* and *battleground views.*

The other 5 dimensions focus on the internal organisation of the company and especially how the units (divisions, departments etc) are structured and which systems and processes they adopt. Interestingly HR components such as skills, staff and style are contemplated here (albeit separately) something which is not in the P5F. In fact one of the criticisms to the P5F model is a lack of evaluation of company cultural components, which is particularly important for corporations and multinationals.

GE-McKinsey Matrix

The GE/McKinsey Matrix is again a model built to assess Strategic Business Units (SBU) and is essentially a revised version of the BCG Matrix. It is built on two dimensions: *Market Attractiveness* and *Competitive Strength* thus providing a *satellite view.*

The main differences are:

- Market Attractiveness replaces the Market Growth in the BCG Matrix. This is considered an improvement because it includes more factors upon which the degree of the attractiveness of an industry can be determined.
- At the same time the dimension of Competitive Strength replaces the Market Share and includes more factors that determine the strengths of an industry in addition to the firm's market share.

- The GE-McKinsey Matrix (depicted in figure 6) also has three degrees of assessment (high, medium, low) hence allowing for more nuances in the results compared to the two degree version in the BCG matrix i.e. only high or low (valuebasedmanagement.net, 2004). It could be argued that three degrees make it harder to compare with the BCG results and, moreover, greater discrepancy occurs because interpretation by managers is higher. However, the finer detail provides better visualization of direction for managers, especially upper managers.

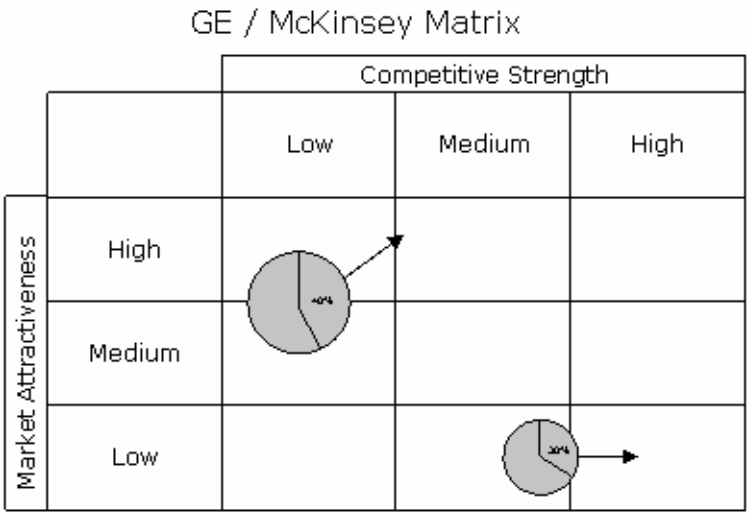

Figure 6 – The GE/McKinsey Matrix

Some of the drivers that can be included under the two GE/McKinsey Matrix dimensions are:

Typical factors that condition Market Attractiveness Factors	Typical factors that condition Competitive Strength
- Market size	- Strength of assets and competencies
- Market growth rate	- Relative brand strength
- Market profitability	- Market share
- Pricing trends	- Market share growth
- Competitive intensity / rivalry	- Customer loyalty
- Overall risk of returns in the industry	- Relative cost position (cost structure compared with competitors)
- Opportunity to differentiate products and services	- Relative profit margins (compared to competition)
- Demand variability	- Distribution strength and production capacity
- Segmentation	- Record of technological or other innovation
- Distribution structure	- Access to financial and other investment resources

Table 1 – Drivers of the GE/McKinsey Matrix dimensions

The 3C`s framework of Kenichi Ohmae

Kenichi Ohmae, the famous Japanese strategist and management guru, developed a model, known as the 3C framework, with the intent to link three key elements he considered fundamental for a firm's competitiveness (www.valuebasedmanagement.net).

The three factors, denominated, *the Corporation, the Customer* and *the Competition* produced what is now known as *The Strategic Triangle*, with a C in each corner of the triangle as depicted in figure 7.

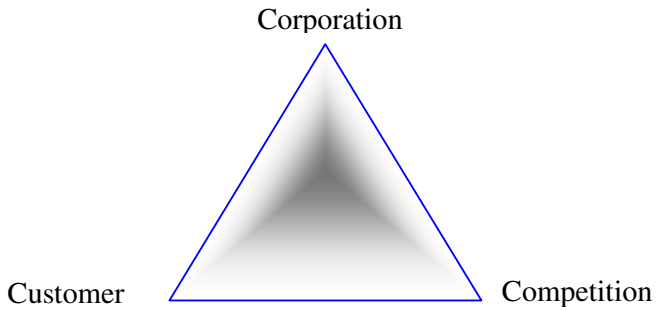

Figure 7 – The 3C model or Kenichi Ohmae's Strategic Triangle

As the name suggests Kenichi Ohmae's model generates an overall strategy, the scope of which is to provide at least a *helicopter view*. The model may be described as follows:

Customer-based strategies: he argues that a company should focus primarily on the satisfaction of its customers before the shareholders (even though modern managerial and fianancial schools and stock markets would disagree here) because by "taking care" of the first, the interests of the second will be fulfilled automatically. The underlying concepts are:

- Segmenting by objectives
- Segmenting by customer coverage
- Re-segmenting the market
- Changes in the marketing mix

Corporate-based strategies: are based on the identification of the functional aspects related to the operation of BSUs, departments, facilities etc. For example:

- Selectivity and sequencing
- Cases of make or buy
- Improving cost-effectiveness

Competitor-based strategies: these are strategies intended to beat or compete against the competition. They are based on the identification of those capabilities that allow the company to differentiate itself with respect to competition, the scope being to become best-in-class. Kenichi's speaks of:

- The power of an image
- Capitalizing on profit- and cost-structure differences
- Tactics for flyweights
- Hito-Kane-Mono (people-money-things/assets)

Although this model appears to have little in connection with the P5F model it has several modern elements of addressing industry competitiveness (see also ARC model by Podolny et al.). For example, the fact that shareholders take a second seat is, in itself, a stark contrast to what most companies proclaim today. Modern CRM theories (Peppers et al, 1999) in fact not only push for more focus on the customer, but also on the stakeholder, before satisfying the shareholder. The reasoning is that if a stakeholder is enthusiastic (e.g. a worker) then this will be reflected in his/her work, this in turn produces a more satisfied customer which will lead to more regular custom and better, more stable, company performance. In this way the shareholder is satisfied and the competitveness circle is completed: this is also what the Kenichi Ohmae model is saying and was often confirmed in our interviews.
Moreover, companies that put the shareholder first are mystifyingly stubborn to realise that the shareholders are the most unrealiable and the most speculative when it comes to maintaining company and industry competiveness stability. The authors will return to this point when the Ward-Rivani model is discussed.

PEST models and Derivatives

The PEST analysis is a framework used in the assessment of the external environment in which a company operates or intends to operate, it thus provides a *satellite view*. But unlike the P5F model it addresses the external environment in a *detached* way, i.e without directly touching the industry in which a company operates and therefore is intended as an assessment tool.

The PEST model is based on the assumption that certain external and indirect circumstances that characterize an industry are able to influence its capacity to produce value. Consequently companies and/or competiveness are indirectly affected. The four factors contemplated in the PEST model are: *Political, Economic, Social* and *Technological.*

They may be included at different levels of analysis of an orgasnisation e.g. strategic, marketing, product development, etc. but they cannot be manipulated or changed (at least in theory[3]) in anyway by the company. The only thing that a firm can do is to assess the factors and possibly prevent or react to them in the most appropriate way.

The success of the PEST model has led to several extensions[4] or re-interpretations e.g. STEEPLE (Social/demographic, Technological, Economic, Environmental, Political, Legal and Ethical factors), SLEPT (PEST plus legal) (valuebasedmanagement.net, 2004) or PESTEL (Political, Economic, Social/demographic, Technological, Environmental, Legislation). The original PEST model factors are described in the table below:

Political (incl. Legal)	Economic	Social	Technological
Environmental regulations and protection	Economic growth	Income distribution	Government research spending
Tax policies	Interest rates & monetary policies	Demographics, Population growth rates, Age distribution	Industry focus on technological effort
International trade regulations and restrictions	Government spending	Labor / social mobility	New inventions and development
Contract enforcement law Consumer protection	Unemployment policy	Lifestyle changes	Rate of technology transfer
Employment laws	Taxation	Work/career and leisure attitudes Entrepreneurial spirit	Life cycle and speed of technological obsolescence
Government organization / attitude	Exchange rates	Education	Energy use and costs
Competition regulation	Inflation rates	Fashion, hypes	(Changes in) Information Technology
Political Stability	Stage of the business cycle	Health consciousness & welfare, feelings on safety	(Changes in) Internet
Safety regulations	Consumer confidence	Living conditions	(Changes in) Mobile Technology

Table 2 – Drivers of the PEST model dimensions

[3] It could be argued that large corporations, that generally have much more power and political grip, can dictate some of the rules (e.g. legislation) by appropriate lobbying techniques.

[4] These extensions are all examples of how a consolidated model like PEST requires continuous updating with the social and business worlds

SWOT Analysis

A SWOT Analysis is also a VBM model and focuses on evaluating 4 factors that compete in pairs to assess both internal value (*Strengths* and *Weaknesses*) and external value (*Opportunities* and *Threats*). The challenge is to find the right balance of these factors and build-up strengths, eliminate or control the weaknesses, take advantage of the opportunities and monitor-react to the threats (www.valuebasedmanagement.net). The SWOT tool provides a *helicopter view.*

External Factors (value)	
Strengths	**Weaknesses**
- specialist marketing expertise - exclusive access to natural resources - patents - new, innovative product or service - location of your business - cost advantage through proprietary know-how - quality processes and procedures - strong brand or reputation	- lack of marketing expertise - undifferentiated products and service (i.e. in relation to your competitors) - location of your business competitors have superior access to distribution channels - poor quality goods or services - damaged reputation
Internal Factors (value)	
Opportunities	**Threats**
- developing market (China, the Internet) - mergers, joint ventures or strategic alliances - moving into new attractive market segments - a new international market - loosening of regulations - removal of international trade barriers - a market led by a weak competitor	- a new competitor in your home market - price war - competitor has a new, innovative substitute product or service - new regulations - increased trade barriers - taxation may be introduced on your product or service

Table 3 – Drivers in the 4 SWOT model dimensions

Strategy and Schools of Thought

It is difficult to imagine how a strategy ideated to compete better in an industry could be successful without addressing and understanding the most appropriate school of strategic thought and leadership. Italian companies tend to follow the Great Man theory of leadership (Bodega, 2004) and hence usually follow a more entrepreneurial school of thought. This means that Italian company strategy follows a top-down approach.

As discussed, at operative level, companies focus more on the tools that are underneath the P5F model, in other words, greater attention is paid at an operative level.

Hence once the big picture of the industry is clear with the P5F model and the most appropriate tools have been deployed (e.g. SWOT, PEST etc) the next layer of decision making is to choose the most appropriate strategy. Many scholars have developed their preferred listings and classifications of schools of thought, here we present 3, perhaps the most complete or comprehensive by Whittington, Mintzberg et al. and White respectively.

Whittington (1977) proposes four approaches, each one pertaining to a particular period of time. He speaks of four criteria these being: Deterministic or Emergent, Single goal or Pluralistic, Strategy style and Influences. This is summarised in the next table.

Indicators	**Classical**	**Processual**	**Evolutionary**	**Systemic**
Deterministic - Emergent	Deterministic	Deterministic	Emergent	Emergent
Single goal or Pluralistic	Single	Plural	Single	Plural
Strategy style	Formal	Crafted	Efficient	Embedded
Influences	Economics	Psychology	Economics/Biology	Sociology
Period (decade of influence)	1960s	1970s	1980s	1990s

Table 4 – Whittington's four approaches to Strategy Development

Mintzberg et al (1998) propose a total of 10 schools of thought, these being categorised in two parts:

1. Prescriptive schools: 3 schools (Design, Planning and Positioning) look at the way strategy should be. These three schools were especially in vogue in the 70s and 80s and to some extent are still very much loved by companies today.

2. Descriptive schools: 7 schools (Entrepreneurial, Cognitive, Learning, Power, Cultural, Environmental and Configuration) look at the way strategy is and seen. Most of these schools of thought have been developed or uncovered over the last 20 years.

The concept of the school of thought is that the resulting strategy is based on the personality of the strategists plus the results of the tools and models used. Clearly the tools and models used to analyse the industry and eventually develop the strategy will depend on the school of thought. Hence it is a *chicken and egg* situation.
White (2004) revisits the work of Mintzberg et al. and builds a list of 14 types of strategy, these being:

1. *Strategy as design*: for this school the aim of a strategy is *"to fit organizational capability with environmental opportunity" (White, 2004: 17)*. This is linked with the SWOT approach and the case studies approach pioneered by the Harvard Business School. The strategy that provides the best fit or best organizational design is chosen. This was a dominant school until the early 70s.
2. *Strategy as planning*: here the aim of a strategy is "to plan" so as "to best allocate resources to achieve the chosen goals within a specific timeframe". This was a dominant school until mid 1970.
3. *Strategy as positioning*: strategy here has the purpose of finding the appropriate sector or industry to be in, finding the best market segments and focusing on the value-adding activities. This was a dominant school through the 1980s and is the P5F approach.
4. *Strategy as entrepreneurship*: strategy is seen as an outcome of the leader, in this case the strategist, has the responsibility to control and inspire a vision throughout his company. He or she usually works by intuition and imagination, thus giving strategy a more implicit and emergent character. This school has always been present in the strategic management discipline and cycles continuously between dormant and favour modes.
5. *Strategy as the reflection of an organizational culture or social web*: strategy is seen as a social process and is shaped by the nature and the culture of an organization. This school was first introduced in 1960 to challenge the pure economist view of business. It was further promoted in 1980 thanks to the Japanese. Recent emphasis on Corporate Social Responsibility (CSR) has taken this school of thought to a higher podium position.

6. *Strategy as a political process*: strategy is shaped by who holds the power. Managing the power means to have control of the strategy. Strategy is the outcome of the negotiation of different interests among the stakeholders, through networking and forming alliances.
7. *Strategy as a learning process*: strategy emerges from a process of discovery and learning. Anyone inside the company can be the strategist, suggestions and new inputs are collected from any source in the organization and they go towards forming the overall strategy. Formulation and implementation are not distinct.
8. *Strategy as an episodic or transformative process*: strategy is (*only*) developed when a particular situation requires it. This school can bring together all the other approaches to fit them into the specific company situation. Strategy is seen to deal with these *transformational situations* in the 'right' way. This school is strongly conditioned by economic cycles (Kondratiev, 2005)
9. *Strategy as an expression of cognitive psychology*: this school analyses how strategy is formed in the strategist's mind from a psychological point of view. It takes into account the single interpretation of the world by different individuals thus generating (inevitably) different strategic approaches. This strategy is considered in all the other schools as well.
10. *Strategy as consisting in rhetoric or a language game*: this school studies the way strategy is talked about by the people in the organization. It works with the *language* required to think strategically or to promote a particular strategy. This is considered in all the other schools as well.
11. *Strategy as reactive adaptation to environmental circumstances*: strategy is shaped by the reaction to the environment. Following this current of thought, adaptation is the key to success. There is a part of this in all the theories.
12. *Strategy as an expression of ethics or as moral philosophy*: Strategy here is a natural extension of the strategist values and aims to satisfy the stakeholders goals. It is about behaving ethically and providing a good reputation for the company (CSR ref.).
13. *Strategy as the systematic application of rationality*: strategy is applied rationality to the organization of a business. As a consequence urge and intuition are not admitted.
14. *Strategy as the use of simple rules*: strategy here derives from practice and experience and is the application of a certain set of simple rules. These rules come from repeated situations or problems in a particular industry or setting that allows the strategist to create a recurrent schema. This school is useful in industries where the situation is highly variable and there is not enough time to go through the entire formal strategic process.

The 3 Layers of Strategy Development

This paper started by looking at the P5F model and continued with a brief description of a selection of models or tools that the everyday manager could use to drive or impact one or more of the five forces (plus other forces that are yet to be implemented or have been proposed).

The P5F model and tools were illustrated at different levels, e.g. different management and decision making levels but also at different heights of view, starting from the *satellite view*. These have been imagined to be on two distinct layers.

We then proceeded with the description of several schools of strategic thought. Here we depict them as being on an additional third and underlying layer, although it could well be argued that all three layers will morph together or rise or fall in the resulting pyramid depending on company culture, organisation and scenario (see next figure). Consequently the layers could be reversed i.e. the *satellite view* starts from the school of thought.

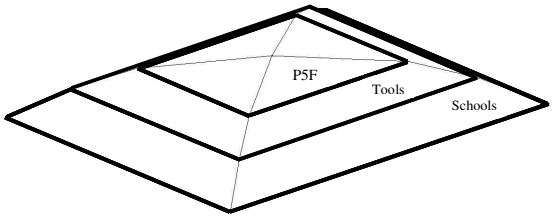

Figure 8 – The 3 Layers of Strategy Development

Interestingly by integrating the two upper layers it may also be possible to provide a map of forces, relative elements and consequent tools. In this way not only does the P5F model become more visible but much more valuable to managers. It also provides an opportunity to see and exploit change better. This is shown in the next figure in a more explanatory format.

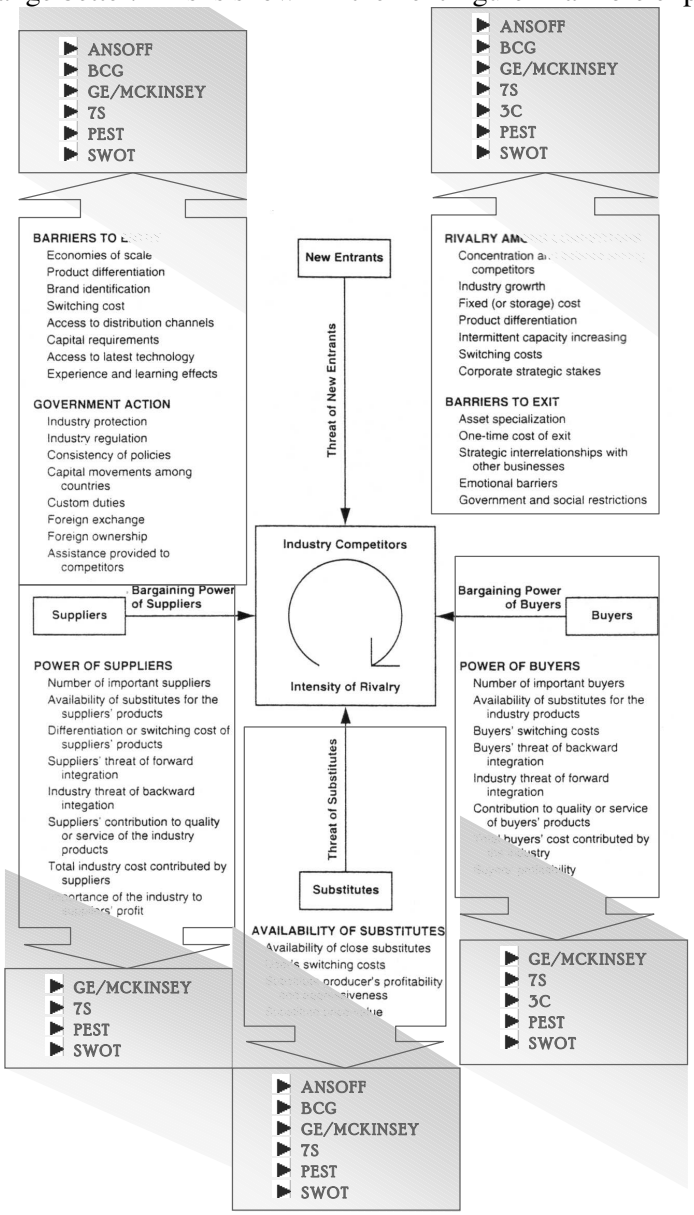

Figure 9 – Linking PF5 forces to Tools

The Ward-Rivani Model

As anticipated, by collecting and comparing models it is relatively easy to spot (and compare) the criteria, applicability and flexibility of each model. Consequently model generation or adaptation of existing ones is not too difficult to achieve, as testified by models such as the BCG and Ge/McKinsey matrices. In fact the WR model was initially generated in this way i.e. by setting up a table and comparing elements, criteria, factors etc. (see next table):

		The Ansoff Matrix	**The BCG Matrix**	**The GE/McKinsey Matrix**	**The 7S McKinsey Model**	**The 3C`s framework of Kenichi Ohmae**	**PEST Analysis**	**SWOT Analysis**
	Dimensions	2 **Products/ Markets**	2 **Market Growth Rate/ Relative Market Share** 2 level: high/low	2 **Market Attractiveness/ Competitive Strength** 3 levels: high/medium/ low	7 Shared Value/ **Strategy**/ Structure/ System/ Staff/ Style/ Skill	3 Corporation/ **Customer/ Competition**	4 **Political/ Economic/ Social/ Technological**	4 Strengths/ Weaknesses/ **Opportunities/ Threats**
The Five Forces Model	**Rivalry among existing firms**	✓	✓	✓	✓	✓	✓	✓
	Threat of New Entrants	✓	✓	✓	✓		✓	✓
	Threat of Substitute Products or Service	✓	✓	✓	✓		✓	✓
	Bargaining Power of Suppliers			✓	✓		✓	✓
	Bargaining Power of Buyers			✓	✓	✓	✓	✓

Table 5 – Model Comparison

Surprisingly we found very little evidence that extensive comparisons had been done in academic circles and the companies contacted (see appendix table a1) relied on models that had been disseminated via consultancy agencies or word-of-mouth. Two approaches seem to appear from our literature search:

1. In the academic world (that we may classify as the *ideal* world) the analyses found were either a one-to-one comparison or limited to the critical review of a particular model or tool.
2. In the real world companies favored tools developed and/or disseminated by consultancy agencies, or during the academic preparation of the managers that use them, essentially because of the immediateness of their application.

In fact in consultancy ambients, where most of the modern tools are professed and delivered to companies, differentiation and hence model adaptation appears much more frequent. This could be due to more competition between agencies and the need to position differently to their clients. A good example of this is the Ge/Mckinsey matrix vs. BCG matrix.

Another finding is that consultancy agencies, like their clients, favor models or tools that have an immediate graphical or verbal representation. For example, tools usually take on the format of matrices (BCG matrix), circles (product life cycle), arrows (cause-effect charts and value chain), graphs such as the dreamspace (Strategos, 2005), or PEST (linguistically speaking, easy to remember).

As work progressed it became clear that some form of process was implicitly or explicitly used to generate models or tools. In the first sense the (implicit) process can be seen as a set of cognitive-learning steps while the latter is probably based on a more structured almost planned (explicit) process.

Hence in the development of the final WR model the authors used a model generation process (shown in figure 10) that essentially tried to combine the cognitive and planned mindsets of practitioners as well as provide a tool for all future model generation.

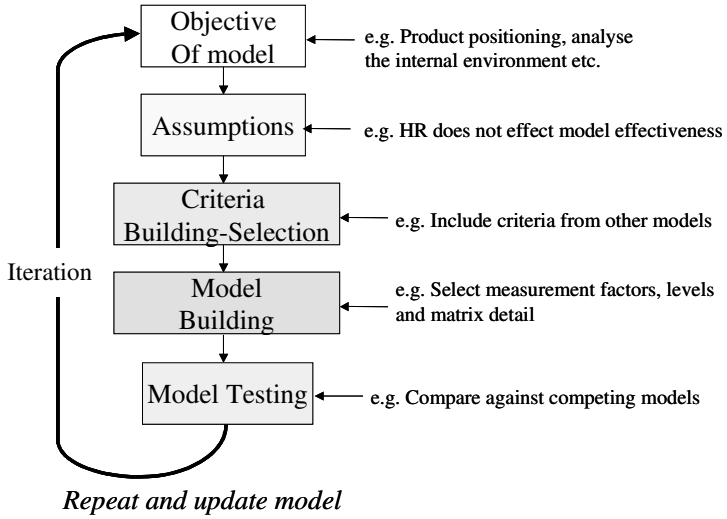

Figure 10 – Model Generation Process

The process may be summarized as follows:
Objective of the model: here we intend what is the overall outcome and therefore what is the model intended for. For example, improve the overall visibility of the company in the external environment.
Assumptions: What are the assumptions behind the model. For example, the P5F contemplates five (and only five) forces and is applicable to the external environment.
Criteria building-selection: What drivers, factors, criteria and how many etc. are needed to satisfy the objective and assumptions of the model. It may be possible to transpose drivers and factors from other models, e.g. PESTEL is based on the PEST model or is an extension of it.
Model Building: here the model is built in the sense that it is assembled and packaged. In this step the model is therefore bounded and its immediateness decided e.g. graphical format as in the BCG matrix.
Model testing: Once the model has been developed it is then tested, ideally by the end-users together with those that have developed it. Should assumptions appear to be too tight or loose, objective missed, drivers are missing etc. then the process is repeated (iterated). Otherwise the process terminates and the model is disseminated.
There may also be the need to repeat the final testing phase to ensure that it is still valid for the environment where it is being used.
The process is also valid for the updating of existing models, consequently there are two options or possible scenarios:

1. Generation of an entirely new model
2. Adaptation of an existing model

As previously discussed we initially used the second option to develop the new, WR model, i.e. it was born out of the table of comparison (see table 6). The intent was to combine the efforts of P5F model and 7 tools addressed here and therefore come up with a better, more robust, model or approach.

So in our first iteration the new model (see table 5) was essentially a combination of 5-6 criteria (Strategies-Categories, Internal Characteristics, External Factors, HR Component, Cultural) only later (in the second iteration) did we add the idea of strategic schools of thought. So the first iteration was more or less what Hill et al. (2001) provides except that his view is restricted to the SWOT tool as is shown in the next figure.

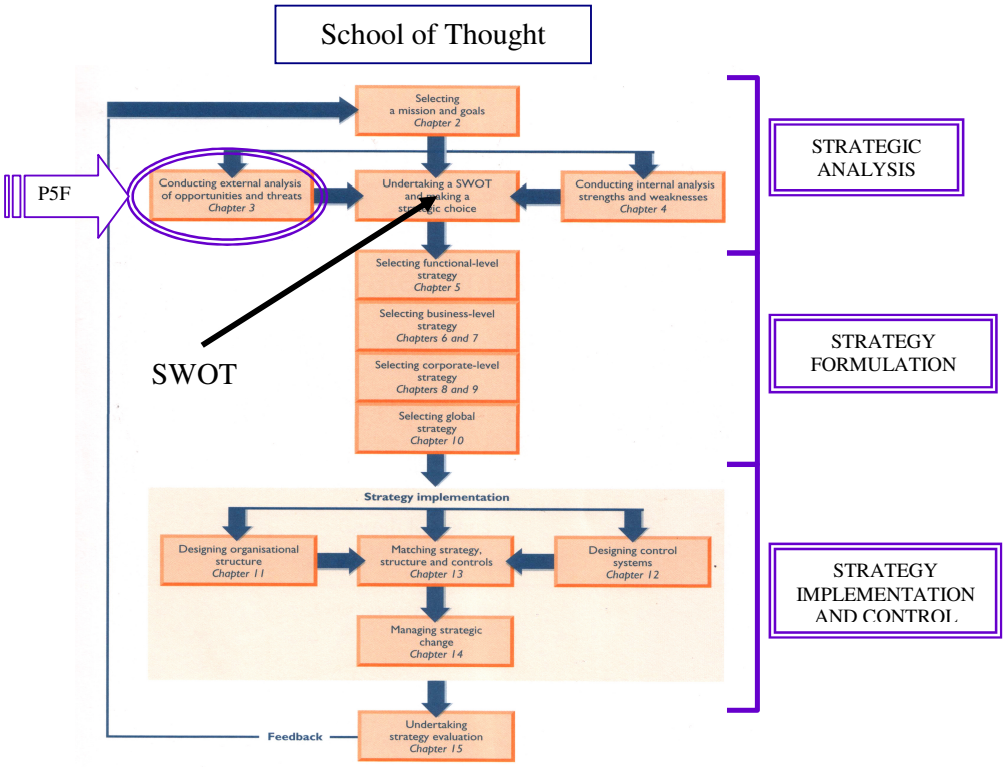

Figure 11 – Approach to strategy development according to Hill et al.

But in the second iteration of the process depicted in figure 10 we came up with the issue of school of thought that is linked to the objective of the model and strategy. In fact in figure 11 Hill et al. quite rightly starts off with the vision and mission of company and subsequently suggests the SWOT tool, this being combined with an analysis of the external environment i.e. the swOT part. In reality this OT part could be expanded with other models e.g. P5F model or with other tools e.g. PEST or include the school of thought as shown in figure 11.

Henceforth combining the P5F model from tools and school of thought seems a logical step forward towards the generation of a new model. In figure 8 we therefore perceive the complete picture of strategy development, that is to say, one where the analysis of the external environment, the appropriate tools and school of thought comes together under one pyramid (see figure 8). Therefore the final model (see table 6) is essentially a combination of 5-6 criteria (Strategies-Categories, Internal Characteristics, External Factors, HR Component, Cultural) plus a view on the three layers depicted in figure 8.
In conclusion the proposed model is therefore an extended P5F model in the sense that it integrates the 5 forces from Porter with other forces-elements (or the adaptation of the present forces) using the most appropriate tools along side the most relevant school of thought.

Remarks
In the brief discussion about stakeholder reliability it was mentioned that industry and company stability are best obtained by focusing first on the customer and stakeholder rather than the shareholder since the latter is much more short-term profit oriented. In the WR model a lot more emphasis is on ensuring that the company performs well and in compliance with the true customers i.e. clients, customers and stakeholders. The authors also feel that ensuring that external analysis contemplates the human capital and HR side and combining it with the tools managers feel at ease with and the most appropriate school of thought will eventually lead to long-term stability and consistent performance.

	P5F Model	Ansoff Matrix	BCG Matrix	7S Model	GE/McKinsey Matrix	3C`s model by K.Ohmae	PEST Analysis	SWOT Analysis	Ward-Rivani model
Dimensions	5 Rivalry among existing firms/ Threat of New Entrants/ Threat of Substitute Products or Service/ Bargaining Power of Suppliers/ Bargaining Power of Buyers	2 Products/ Markets	2 Market Growth/ Market Share 2 level: high/low	7 Shared Value/ Strategy/ Structure/ System/ Staff/ Style/ Skill	2 Market Attractiveness/ Competitive Strength 3 levels: high/medium/low	3 Corporation/ Customer/ Competition	4 (in the minimal form) Political/ Economic/ Social/ Technological	4 Strengths/ Weaknesses/ Opportunities/ Threats	Multiple facets- Integration of the 5 forces from Porter plus other forces or adaptation of the present forces using the most appropriate tools along side the most relevant schools of thought. Include HR capital and HR drivers. Anticipate and exploit change.
No. of Strategies[5] and Type	3P	2P	2P	6D	2P	3P&D	4D	4P	9P & D
Minimum model resolution[6]	5	4	4	6	9	3	4	4	6
Internal characteristics	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
External factors	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
HR component	No	No	No	Yes	No	Yes	No	Maybe	Yes
Cultural	No	No	No	Yes	No	No	No	Maybe	Yes

Table 6 – A Comparison of Industry and Company Assessment models

[5] *Strategies refer to number of primitive schools of thought and nature (tendency) i.e. P-Prescriptive D-Descriptive.*
[6] *By model resolution we intend the number of elements, forces etc. contemplated in the original model or tool*

Conclusions

During various interviews of Italian companies and their key staff, the majority of which were international-multinational in nature but also *family-run* in practice, it became apparent that managers and upper management in general were unaware of the P5F model, even though following our discussion they realised that they actually assess most of the forces on a regular basis.

It was also found that Italian companies, like their European counterparts probably opt for a more practical approach and tend to exploit the many tools and models developed over the years to tackle specific problems. In fact SWOT, PEST, the BCG matrix etc. were often cited as being 'the' tool to use. Few seemed intent to take a helicopter view and therefore left the analysis of the industry environment more to intuition and entrepreneurship. This could indicate their preferred school of thought.

The analysis described in this paper appears to indicate that much has to be done to provide companies with not just the tools but an overall framework in which managers and upper management can not only appreciate the complexity of the industry environment but also the multitude of models available. Many of the models examined were either replicas of other models or simple extensions or adaptations or *vertical* in nature.

The authors also second other academics in their constructive criticism of the P5F model as it indeed has at least one force missing, which we believe must include HR and human capital drivers.

However, the authors propose that until a new overall model like Porter's is developed we, as academics and practitioners, should at least divulge a more wider and integrated approach rather than focus on specific models. In this way companies would be become aware of what is available, how these models are correlated and how they can be adapted to suit the circumstance and industry being analysed.

The Ward-Rivani model is proposed as an example of this adaptation and the discussion provided in reaching it should help others to use a more structured approach when comparing more than two models at a time.

On a concluding note the authors would also like to invite companies to assess their strategy not only in terms of what is happening in the external environment (which is typical of senior management) but also take a more integrated view and therefore include both tools and schools of thought. Coupling all three of these layers together can provide enterprises with a very solid framework for strategy development.

Bibliography

- Bain, J.E., *Barriers to New Competition*, Harvard University Press, Cambridge, 1956 cited by Hill et al., 2001.
- Clifton R., Simmons J. et al., *Brands and Branding*, The Economist, 2003.
- Cullen J.B., *Multinational Management – A Strategic Approach*, 2nd Ed., South Western, 2001.
- Grant R. M., *Contemporary Strategy Analysis: Concepts, Techniques, Applications*, 4th ed., Blackwell, 2002
- Grove, A.S., *Only the paranoid survive*, Doubleday, New York, 1996 cited by Hill et al., 2001.
- Hill, Charles W.L. et al., *Strategic Management – an integrated approach,* John Wiley and Sons, Sydney, 2001.
- Johnson G. and Scholes K., *Exploring Corporate Strategy*, 6th ed., Prentice-Hall, 2002.
- Koch R., *The Financial Guide to Strategy – how to create and deliver a useful strategy*, 2nd edition, Prentice-Hall. 2000.
- Mintzberg H. et al., *Strategy Safari: A Guided Tour Through The Wilds of Strategic Management*, Prentice-Hall, 1998.
- Peppers D, Rogers M. and Dorf B., *Marketing One-to-One*, Random House, New York.
- Porter M. E., *Competitive Strategy – Techniques for Analyzing Industries and Competitors*, Free Press, New York, 1980.
- Porter, M. E., *Competitive Advantage – Creating and Sustaining Superior Performance*, Free Press, New York, 1985.
- Porter, M. E., *Competitive Strategy,* Harvard Business Review, New York, 2004.
- Rivani E., *Porter's Five Forces Model: an Academic exercise or a tool for Practitioners*, undergraduate dissertation in English, European School of Economics, Milan, Italy, 2005.
- *Crampin M et al., Mathematical Modeling*, Course MST204, module M, The Open University, UK, 1993.
- White, C., *Strategic Management*, Palgrave, McMillan, New York, 2004
- Whittington R., *What is Strategy - and Does it Matter?,* Routledge, 1993.
- Bodega D., *Le Forme della Leadership*, ETAS libri, Italy, 2002.
- Alexander M. A., *The Kondratiev Cycle: A Generational Interpretation,* Writer's Club Press, 2001.
- *Corporate Social Responsibility*: http://www.business-ethics.com/ accessed 20th May 2005
- Podolny J., Saloner G. and Shepard A., *Strategic management*, Wiley, 2nd. Edition. 2002.

Web Sites

- Value Based Management website: http://www.valuebasedmanagement.net/methods_porter_five_forces.html accessed the 20th May 2005
- Strategos Inc. website: http://www.strategosinc.com/ accessed 20th May 2005
- Kenischi Ohmae's website: http://www.ohmae-report.com/pro/bioe.html
- Ward website: www.geocities.com/davidilcapo/theboss.html accessed 20th May 2005
- Boston Consulting Group: www.bcg.com accessed 20th May 2005

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Appendix

Table a – Matrix of Italian Companies involved in extensive survey

Industry	Company Size (Workforce)	Managerial Influence	Company type	Most used Strategy Tool
Appliances	150	National	Italian family run – Major exporter to USA	Implicit use of SWOT approach used with elements of 7S
Appliances	≈50000	International and National	Global	Specific tools to measure industry forces. Strategy decisions are centralized. Tools include SWOT, PEST, parts of 3C.
Appliances	≈51000	International and National	Global	No specific tools to measure industry forces. Strategy decisions are centralized. Parts of 3C model used.
Software	10	National	Italian	Own in-house strategy navigation tools.
Sports apparel	>17000	National	Global	Specific tools to measure industry forces. Strategy decisions are centralized. Tools include SWOT, PEST, parts of 3C.
Marketing research	25	National	Italian	Implicit use of SWOT approach used.
Engineering	70	National	Italian	Implicit use of SWOT-BCG approach used.
Electronics	>10000	National	Italian	Specific tools to measure industry forces. Strategy decisions are centralized Implicit use of SWOT approach used
PC parts	80	National	Italian family run – Major exporter to Europe	Implicit use of SWOT-BCG approach used
HVAC	300	National	Italian	Implicit use of SWOT approach used
E-commerce	25	National	Italian	Implicit use of SWOT and PEST approach used. Parts of 3C used as well
Banking	3000	International and National	Italian	Specific tools to measure industry forces. Strategy decisions are centralized.

Other Recommended Readings

- Ansoff, H. I., *Business Strategy*, Penguin Books, New York, 1969
- Ansoff, H. I., *Corporate Strategy*, Penguin Books, New York, 1968
- Ansoff, H. I., *Management Strategico (Strategic Management)*, Etas Libri Milano, 1980
- Baden-Fuller, C. and Stopford, J. M., *Re-juvenating the mature business, the comparative challenge*, Routledge, London, 1992 cited by Williamson, D., 2004
- Barney, J. B., *Gaining and sustaining competitive advantage*, Prentice Hall International, Upper Saddle River, 2002 cited by Williamson, D., 2004
- Besanko, D. et al., *The Economics of Strategy*, J. Wiley and Sons, New York, 1996
- Byars, L. L. et al., *Strategic management*, Irwin, Chicago, 1996
- Chandler, A. D. Jr., *Strategy and structure: chapters in the history of industrial enterprise*, MIT Press, Cambridge, 1962 cited by White, C., 2004
- De Kare-Silver, M., *Strategy in Crisis, Why Business urgently needs a completely new approach*, Mc Millan Business, London, 1997
- De Wit, R. and Meyer, R., *Strategy – Process, Content, Context: an international perspective*, 2nd edition, International Thomson Business Press, London, 1998 cited by White, C., 2004
- Dobson, P. et al., *Strategic Management, issues and cases,* 2nd edition, Blackwell, Malden, 2004
- Drejer, A., *Strategic Management and Core Competencies: theory and application*, Quorum Books, Westport, 2002 cited by White, C., 2004
- Fitzroy, P. T. and Hulbert, J M., *Strategic management, creating value in a turbulent world*, Wiley, Chichester, 2005
- Freeman, R. E., *Strategic Management: A Stakeholder Approach*, Pitman Publishing Co., Boston, 1984 cited by Hunger, D. J. and Wheelen, 1996
- Ghemawat, P., *Strategy and the Business Landscape: text and cases*, Addison-Wesley, Reading, 1999 cited by White, C., 2004
- Gluck, F. W., *Strategic Management for Competitive Advantage*, Harvard Business Review, Harvard Business School Press; USA, (July, 1 - 1980) cited by Sharplin, A. 1985
- Haspeslagh, P. C., *Portfolio Planning Approaches and the Strategic Management process in diversified industrial companies*, UMI, Ann Arbor, 1983 cited by Sharplin, A. 1985
- Hax, A. C. and Majluf, N. S., *The Strategy Concept and Process, a Pragmatic Approach*, Prentice Hall, New Jersey, 1996
- Heller R. and Hindle T. (1998), *The Essential Mangers Guide*, DK Publishers, 1st Edition, UK.
- Higgins, J. M. and Vincze J.W., *Strategic Management, text and cases,* 5th edition, The Dryden Press, Fort Worth, 1993
- Hill, C. W. L. and Jones, G. R., *Strategic Management, an integrated approach*, Houghton Mifflin, Boston, 1989
- Hunger, D. J. and Wheelen, T. L., *Strategic Management*, 5th edition, Addion-Wesley, Reading, 1996
- Karlöf, B., *Business Strategy, i concetti e i modelli (Business strategy, concepts and models)*, Franco Angeli, Milano, 1990
- Kotler, P. *Marketing Management*, 11th edition, Italian ed., Pearson Prentice-Hall Italy, Milan, 2004

- Luffman, G. et al., *Strategic Management, an analytical introduction*, Blackwell Business, Oxford, 1996
- McNamee, P. B., *Tools and Techniques for Strategic Management*, Pergamon Press, Oxford, 1985
- Ohmae K., *The Next Global Stage*, Pearson Education, 2005
- Pettinger, R., *Contemporary Strategic Management*, Palgrave, Basingstoke, 2004
- Porter, M. E., *Competitive Strategy*, Free Press, 2004
- Rasiel, E. M. and Friga, P., *The McKinsey Mind: Using McKinsey Tools, Techniques and Strategies in Your Own Company*, McGraw-Hill, USA, 2001
- Rowe, A.J et al., *Strategic Management, a methodological approach*, Addison-Wesley, Reading, 1994
- Rumelt, R. P., *Strategy, Structure and Economic Performance*, Harvard Business School Press, Boston, 1986 cited by Fitzroy, P. T. and Hulbert, J M., 2005
- Sadler P. (2002), *Leadership*, MBA Masterclass, Kogan Page, London, UK
- Sharplin, A., *Strategic Management*, McGraw Hill, New York, 1985
- Stahl, M. J. and Grigsby, D. W., *Strategic Management, Total Quality and Global Competition*, Blackwell Business, Oxford, 1997
- Stern, C.W., Stalk, G., *Perspectives on Strategy from the Boston Consulting Group*, John Wiley & Sons, New York, 1998
- Thompson, A. A. and Strickland, A. J., *Strategic management, concept and cases*, 12 the edition, McGraw Hill/Irwin, Boston, 2001
- Thompson, J. L., *Strategic Management, Awareness and Change*, International Thomson Business Press, London, 1997
- Williamson, D. et al., *Strategic management and business analysis*, Elsevier Butterworth Heinemann, Amsterdam, 2004

Suggested Websites and Urls

- http://www.valuebasedmanagement.net/methods_productmarketgrid.html accessed 20th May 2005
- http://www.valuebasedmanagement.net/methods_bcgmatrix.html accessed 20th May 2005
- http://www.valuebasedmanagement.net/methods_7S.html accessed 20th May 2005
- http://www.valuebasedmanagement.net/methods_ge_mckinsey.html accessed 20th May 2005
- http://www.valuebasedmanagement.net/methods_3C's.html accessed 20th May 2005
- http://www.valuebasedmanagement.net/methods_PEST_analysis.html accessed 20th May 2005
- http://www.valuebasedmanagement.net/methods_swot_analysis.html accessed 20th May 2005
- http://www.kohmae.com/profile/index_e.html accessed 17th May. 2005

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