Competitive strategy in three dimensions: towards a model for enhancing learning

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Abstract
This paper briefly reviews ideas of competitive advantage from the development of Porter's generic strategy ideas to the present day. It is the first part of a study to investigate ways to improve the teaching and learning of strategy. There has been a history of searching for models that allow the simple classification of firms' strategies into specific ideal types. These models contain gaps and ambiguous concepts. This paper contends that interweaving the positional ideas of Porter with resource based ideas (Barney, 1991) in a single model allows student to better understand the complexity of real life strategic situations. A three dimensional model that can be used in such an exercise is proposed. The strategy cube model uses price, cost and perceived benefits for understanding competitive advantage from both a market and resource perspective (Jenkins, 2004, Jenkins, 2005). The model also seeks to emphasise the dynamic nature of strategy and the concept that firms exist in competitive situations that may be temporary. The aim is to help students to understand the complex nature of strategy as something beyond positioning in a static market. Some initial results indicate that students using this model do gain an understanding of competition and competitive advantage that is multi-faceted. It is intended to use this model in student assignments, to assess the assignments and then interview students about their understanding. Teachers will also be interviewed in future studies. Through this process it is intended to identify areas that students find troublesome and hence further improve strategy teaching. These ideas are related to those of threshold concepts in that it is intended to help students to gain greater insights into strategy by having a greater understanding of its underpinning concepts (Meyer and Land, 2005).

JEL Classification: D440

Introduction

Examination of the syllabuses of business schools indicates that at the core of their undergraduate and postgraduate courses in business studies and management are modules that are focused around the key principles of strategic management. At the centre of these modules is the topic of competitive strategy. Examination of text books on strategy indicates the influence of the thinking of Michael Porter (1980; 1985) on a number of topics in strategic management. Models developed by Porter, his value chain and national diamond model, are regularly reproduced in such text books. However, his model of generic strategies remains simultaneously influential and widely criticised. This is exemplified by

the fact that two major texts use models based on the ideas of Porter which have been modified to compensate for the perceived weaknesses in his initial formulation (Johnson et al., 2005; Thompson et al., 2007). Whether this is indicative of an evolutionary scientific period, or is symptomatic of the fact that thinking on competitive strategy is in what Campbell- Hunt (2000) calls a "preparadigm state", is an implicit framing concept for this paper. The brief literature survey indicates that the academic study of strategy still is a period where concepts are not clearly defined. This is both troublesome for teachers and learners. The paper then outlines a three dimensional model for representing the key concepts of competitive strategy in a way that facilitates the understanding of the controversies and debates in the literature and the evaluation of real world situations. The paper subsequently argues that:

- The practice of strategic management and analysis is greatly enhanced by incorporating both the concepts associated with the positioning school as represented by Porter and those of the resource based view as represented by Barney.
- Strategic analysis and practice should also be carried out with an awareness of the importance of context and the influence of entrepreneurial creativity and management sensitivity in developing successful strategy (Mintzberg, 2004; Bennis and O'Toole, 2005).

The paper explores the nature of student learning in the context of the study of competitive strategy and discusses how both model design and the philosophical rationale behind the use of models can influence the way models are understood and applied by students, researchers and practitioners.

The paper is structured as follows:

1 A review of Porter's model
2 Critiques of Porter's model
3 Generic strategy and the resource based view of competitive advantage
4 Developments of Porter's generic strategy model in two major text books: an assessment of these models as learning vehicles
5 The role of models in teaching, research and practice
6 The strategy cube: A three dimensional model for representing firms' competitive strategies and the extent to which it can incorporates the generic strategies suggested by Porter (1985), Johnson et al.(2005) and Thompson et al.(2007)
7 Exploring theoretical ideas using the strategy cube
8 The strategy cube as used by students: some initial examples
9 Conclusions

Discussion

Porter's Generic Strategy model

The model uses two categorical variables. The variables used are competitive scope (broad and narrow) and competitive advantage (lower cost and differentiation). Porter (1985) outlined "the core concepts" that form the basis of his model. These include:

- Cost leadership
- Differentiation
- Focused and broad strategies
- A focused strategy concentrates on one segment
- A broad strategy serves a range of industry segments
- Stuck in the middle
- The standard product

The application of these concepts can be complicated as acknowledged by Porter:

> The specific actions required to implement each generic strategy vary widely from industry to industry, as do the feasible generic strategies in a particular industry. (Porter, 1985, p.11*)*

In order to be apply to apply these ideas in an analytical way to a practical situation whether it as case analysis or in "real life" people need to be able to understand them in a way that a professional strategist would. That is to understand the value and nature of data and the models being used in the interrogation of that data.

Also implicit in Porter's work is the idea that cost and price are linked in competitive situations. Porter recognises that unless one competitor has an inimitable technology, competitors will be able to match each others' costs. He also argues that usually when there is an asymmetric distribution of resources then this asymmetry will be eroded as competitors catch up with first movers.

> Introducing a significant technological innovation can allow a firm to lower cost and enhance differentiation at the same time, and perhaps, achieve both strategies. (Porter, 1985, p.20)

But

> The pioneer may be at a disadvantage if, in pursuit of both low cost and differentiation, its innovation has not recognised the possibility of imitation. It may be then be neither low cost nor differentiated once the innovation is matched by competitors who pick one generic strategy. (Porter, 1985, p.20)

Thus Porter's original work acknowledges market dynamism but as a series of "disturbed equilibriums" where firms' relationships evolve over time but competitive advantage can be sustained for periods by staying with a particular generic strategy. However, even this is ultimately risky because generic strategies are vulnerable to imitation and obsolescence. It is possible that over time a particular generic strategy will become obsolete. In some industries all the generic strategies are not possible:

> In some industries, industry structure or the strategies of competitors eliminate the possibility of achieving one or more of

> the generic strategies. (Porter, 1985, p. 21)

So mixed generic strategies are possible but not sustainable because of transference of resources and knowledge but neither are all pure generic strategies. They are, however, likely to be more durable than mixed strategies. Thus implicit in Porter's framework are ideas of dynamism and resource immitability. He also observed that strategic action was contingent on circumstances.

Critiques of Porter's model

Campbell- Hunt (2000) undertook a meta-study of research into generic strategies and concluded that strategy is contingent on the situation. Industries are different. However, he also confirmed Porter's premise that cost and differentiation are important in firms' competitive postures. However, he was unable to find indications of the dominant nature of specific postures in terms of performance. The premise that adopting exclusively either differentiation or cost leadership strategies leads to superior performance was not supported. Campbell-Hunt also added complementary ideas on competitive strategy

1 That firms rarely adopted cost leadership and differentiation simultaneously but it was possible to define strategies which do not impose tradeoffs to produce lower costs
2 That resources in one area can assist the development of advantages in another – product innovation and operations management
3 When there are extremes of product quality in industries (specification/grade?) focus may be necessary within supplier firms
4 Firms taking a broad position in multi-product multi-segment markets could gain advantages if it was possible to gain both economies of scope over product variety when consumers perceived a firm's quality reputation spanned this product scope.

Hill (1988) argued from basic economic theory that the pursuit of both low cost and differentiation strategies is viable in some industries, whatever the opposition does, and are capable of producing competitive advantage. Hill reasoned that firms who delivered differentiated products at relatively low prices would change the nature of demand and scale economies: a firm offering a premium product at relatively lower than average price would capture more market share. Hill also makes a contingent argument in that not all markets can accommodate his suggested approach but that a number of market attributes are required.

- The product must be capable of differentiation
- The stage of the product life cycle - he argued that using price and differentiation to seize market share was appropriate in fragmented markets in the early phase of the product life cycle. "The more complex or variable the process the greater the learning effects." Clearly contingency is all around us.
- The nature of the cost curve – there must be the potential to gain scale economies that offset the cost of differentiation
- Economies of scope can exist where a number of similar products exist as in multi-product markets – so there are opportunities for cost reduction here (see also Jenkins, 2004).

Based upon this he suggested that Porter's work may have served to misdirect managers and researchers. This point is further discussed below.

Generic strategy and Resource based theory

In the original conception Barney (1991) outlined his view of competitive advantage and specifically positioned his ideas and contrasted its key concepts relative to those of Porter. The authors' quotes are shown in Table 1

Table 1: Concepts of competitive advantage: the words of Porter (1985) and Barney (1991)

Concept	Porter Quote	Barney Quote	Commentary
Competitive advantage	Competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's costs of creating it. There are two types of competitive advantage cost leadership and differentiation, (p.3).	A firm is said to have a competitive advantage when it is implementing a value creating strategy that is not being implemented simultaneously by any current or potential competitors (p.102)	Porter and Barney have similar concepts but Porter emphasises positioning within the industry whereas Barney focuses on more on differences between firms.
Sustained competitive advantage	The sustainability of a generic strategy requires that a firm posses some barriers that imitation of the strategy difficult, (p.20).	A firm is said to have a competitive advantage when it is implementing a value creating strategy that is not being implemented simultaneously by any current or potential competitors and when those other firms are unable to duplicate the benefits of this strategy (p.102)) Unanticipated changes in the economic structure of an industry may make at what was, at one time, a source of sustained competitive advantage, no longer valuable for the firm (p.103)	Barney's idea is a theoretical concept. It has been described as tautological (Priem and Butler). However, it does form a basis to discuss and compare real organisations to this ideal. Porter sees the possibility of imitation as always present. In reality Barney definition recognises that strategy can become obsolete if the environment of the firm changes.

Following the above discussion the key variables identified in models of competitive strategy can be classified as market position variables and variables associated with firm resources, i.e. competitive advantage can be defined as having market component and resource component. Market position facing variables are product benefits and price. Resources variables underpin the delivery of products with costs and features that these benefits and prices map to.

Developments of Porter's generic strategy model in two major text books

With respect to the teaching of competitive strategy it is useful to look at the critiques of Porter recorded in two popular strategy text books. Johnson et al. (2005) outline definitional problems associated with Porter's ideas. They specifically argue that the core concepts of cost leadership, differentiation and focus are inadequately defined. The also observe that many have confused cost leadership with low price. Consequently they advocate the teaching of competitive strategy by using a framework, the Strategy Clock, based on one developed by Bowman (Faulkner and Bowman, 1995), which defines five potentially viable "market facing generic strategies". This again is a two variable matrix, perceived customer benefits and price (in earlier additions this was perceived use value and price) but two additional variables are discussed in the supporting commentary – market scope and cost. Market scope may also be considered to be implied by the price/benefit ratio. This has the advantage over Porter's model in that it clearly distinguishes price from cost. It also can be used to illustrate that different, but functionally similar, products can be placed in different parts of the clock. In some respects overlying the model with the clock artefact prevents the model being fully exploited to indicate how market strategies of firms can be mapped dynamically overtime but the authors indicate this process is possible as new entrants can subsequently move around the clock from initial low price positions. In some respects the definition of five viable strategies is problematical – why five in a continuum? The model can be mapped to Porter's approach in that the positions in the clock are defined as likely to be broad or focused. Thus the five generic strategies can be interpreted as replicating Porter's three generic strategies with some modifications. Porter's focus strategies are mapped to two positions: low frills and focused differentiation. Their low price strategy maps to a cost based strategy:

> So clearly in the long run, a low price strategy cannot be pursued without a low cost base.
> (Johnson et al, 2005, p.246)

The differentiation strategy maps to Porter's differentiation strategy. The hybrid position is explained with reference to Hills (1988) and Miller's (1986) critique of Porter's generic strategies. Sustainability of competitive strategy is discussed in a way that mirrors Porter's.

In another well known text Thompson et al (2007) use a modification of Porter's model and present the reader with five generic strategies. Porter's three with focus divided into two and the addition of a "best

cost strategy" the best cost strategy again reflects the arguments made by Hill but these are not explicitly referenced in the text.
This model is limited in explaining the dynamics of strategy compared to the Strategy Clock.

Overall both models are limited in the following respects:

- Not fully discussing the concept of the standard product – not accommodating the idea of the standard product as a "moving target"
- Not being able to map ideas of resources immitability to those of market position – including distinguishing between sustained competitive advantage and temporary competitive advantage
- Not Capturing the dynamic possibilities of resources and market positions
- Not presenting data in a way that allow comparisons to be made on how functionally similar products can have different price/cost/benefits and hence can satisfy the wants of different segments

  There is also the possibility that by simply introducing modifications of Porter's work without a more focussed debate of the issues may miss a great opportunity for developing student learning, which allows the recognition of the considerable and still relevant merit in Porter's ideas as well as some of its clear definitional weaknesses.

The role of models in teaching, research and practice

The debate about competitive strategy which has been briefly outlined above has been greatly influenced by a bigger debate. Bennis and O'Toole (2005) have observed that the dominant paradigm at the elite (influential) end of the business school world is the concept of management as science. By this they imply a quantitative science based founded in a positivist philosophy.

> This *scientific model,* as we call it, is predicated on the faulty assumption that business is an academic discipline like chemistry or geology.)
> (Bennis and O'Toole, 2005 p.98)

Perhaps a serious weakness of positivist framed inquiry into complex social phenomena including competitive strategy is that it requires the demonstration of a constant conjunction between causes and effects operating in a closed system. Downward (2003) made the same observation about economics

> Further this mode of explanation embraces closed-system ontology. Closure implies that causes produce the same effects and effects can always be understood, uniquely, in terms of the same causes. (Downward, 2003, Page 3*)*

When looked at under this microscope, theories that have limitations in real world situations are criticized more for their weaknesses than valued for their strengths. Theories are expected to show (simple) relationships between variables. In complex social environments this is not possible by using a simple model complex ideas are inadequately represented. If Hill's contention that mangers and researchers were

misled by Porter's ideas of generic strategy is true, it is because they accepted them uncritically in a naïve positivist framework. The argument made in this paper is that competitive strategy should be taught in a way that recognises real world "messiness"– if this is not done the business school graduates will be less than optimally fit for work. Teaching strategy must also be coherent if student development is optimised. For example, in many strategy courses definitions of strategy are given. This one is found in Johnson et al (2005)

> Strategy is the direction and scope of an organisation over the long term which achieves advantage in a changing environment through its configuration of resources and competences to meet the needs of markets and to fulfil stakeholder expectation (Johnson et al., 2005, page 9)

If a definition like this is used it sets the criteria for future learning. If key concepts inherent in such definitions are not fully explained and contextualised in subsequent topics there is a risk confusing students and the prevention of the understanding of threshold concepts and hence progression(Meyer and Land, 2003). Badly expressed and confusing concepts are barriers to effective learning. Where concepts are disputed, or even ambiguously defined in seminal texts, it is important that students can accommodate the rationale for those disputes within their thinking. The stance taken in this paper that models that allow a discussion of the key thresholds concepts are required so that students are armed with the correct material to allow them to make sense of these concepts through group and individual study. They need to be capable of thinking like critical researchers.

The remainder of this paper presents a model that allows the strengths of the ideas of Porter and Barney to be utilized in an analytical framework. The framework also captures how Porter's ideas have been enhanced rather than diminished by the critiques outlined above. This paper further suggests that the framework proposed will facilitate intensive analytical procedures which produce explanations that are theoretically rooted but take into account the complex worlds of firms and industries (Sayer, 2000).

The Strategy Cube model

A model that allows the discussion of competitive strategy from both market and resource perspectives has been described by Jenkins (2004). A framework is proposed in which products/services are described by three variables:

- Relative level of consumer perceived product benefits
- Relative product price to the customer
- Relative product cost to the producer

The relation between price and benefits defines the market position of the product. The relationship between costs and benefits defined the resource position of the product. Different segments will buy products with different levels of benefits. The three variables are used to classify products into groups in the context of the whole market.

Relative level of perceived product benefits

Porter (1985) described products with a higher level of benefits than a notional average product as differentiated. However, differentiation can

be achieved in a number of ways (Campbell-Hunt, 2000; Mintzberg, 1988), so the concept of relative product/service benefit level within a particular range of functionally similar products is proposed. Benefits can result from both tangible and intangible product features. Some purchasers will forego benefits to get lower prices and some will be prepared to pay more for more benefits. Clearly this model has many of the limitations of the previous models – problems with defining and measuring benefits – are all features beneficial. However, if the analysis is case specific with respect to a firm or specific group of firms this becomes less troublesome.

The relative product price
The product price is the amount of money that the buyer pays for the product. The actual price plus consumer surplus equals the price that the consumer would be prepared to pay, the perceived use value. Consumers seek to maximise consumer surplus.

The relative product cost
Product cost is the cost of producing and delivering the product to the customer. The average total product cost is a combination of fixed cost and variable cost. The ability to share cost amongst products when they share resources is a potential source of cost advantage. If fixed costs can be spread over large volumes until marginal revenue equates to marginal cost, average unit costs reduce and profits increase.

Modelling product positions

An assumption inherent in Porter's concept of generic competitive strategy is that for functionally similar products costs increase as product features increase. Porter implies that, within a range of products, as benefits increase so will price. However, if the market is populated by innovators, the dynamics of the market may disturb this positive relationship, and markets can operate a way from such a position. Barney argues that in the absence of outside shocks equilibriums may be established where some firms can have superior resource positions to others 1.e. cost/features (implying benefits) ratios will differ. These are the situations where sustained competitive advantage exists. In this paper, for the sake of simplicity, benefits are broadly considered to be directly mapped to features (in specific cases this may not be the case, especially where decisions are being made about low cost/price positions).

A framework has been developed and is used to discuss the implications of the competitive stances that combinations of the variables, relative price, relative cost and relative level of benefits, define. Nine reference points have been defined, eight where each of the three variables takes two values relatively high and relatively low and the average product, which has a notional average level of benefits at an average price and cost. These positions can be depicted on a matrix (Figure 1) and by positions in a cube (Figure 2). Again the notion of relatively high, relatively low and average requires interpretation by the researcher/student/manager/analyst.

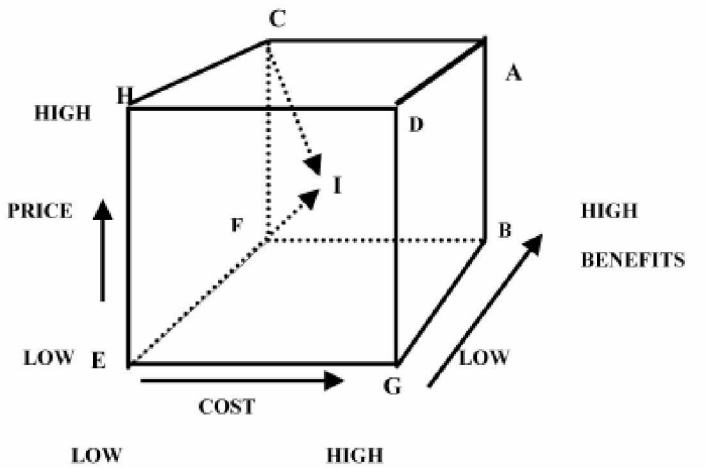
The eight extreme positions are represented as the corners of a cube,

with the average product at the centre. Other products can be located in intermediate positions. The whole cube can be represented by considering volumes proximate to each position.

Figure 1: The Strategy Matrix

Relative Level of Benefits	Relative Cost	Relative Price	Identity Letter	Features Of Strategies Proximate To Position
High	high	high	A	Focus differentiation strategies
High	high	low	B	Untenable in long run because internal costs too high, but may be adopted to gain market share and reduce costs through economies of scale
High	low	high	C	Market differentiation with low cost
Low	high	high	D	Untenable, consumer unlikely to choose over standard product
Low	low	low	E	This would be a tenable position for a firm competing on price
High	low	low	F	Market differentiation with low cost and price
Low	high	low	G	Untenable, consumer may choose under some circumstances too costly for producer to sustain
Low	low	high	H	Untenable
average	average	average	I	

Figure 2: The Strategy Cube



The Strategy Cube and other models: Table 2 shows how the positions in the three models discussed in this paper can be modelled using the strategy cube (assumes at a specific point in time) It is also possible

to more fully capture concepts of competitive strategy within segments by modelling multi-product/multi-segment markets by characterising the market as a large outer cube representing segments/product groups within the market as smaller cubes, see figure 3

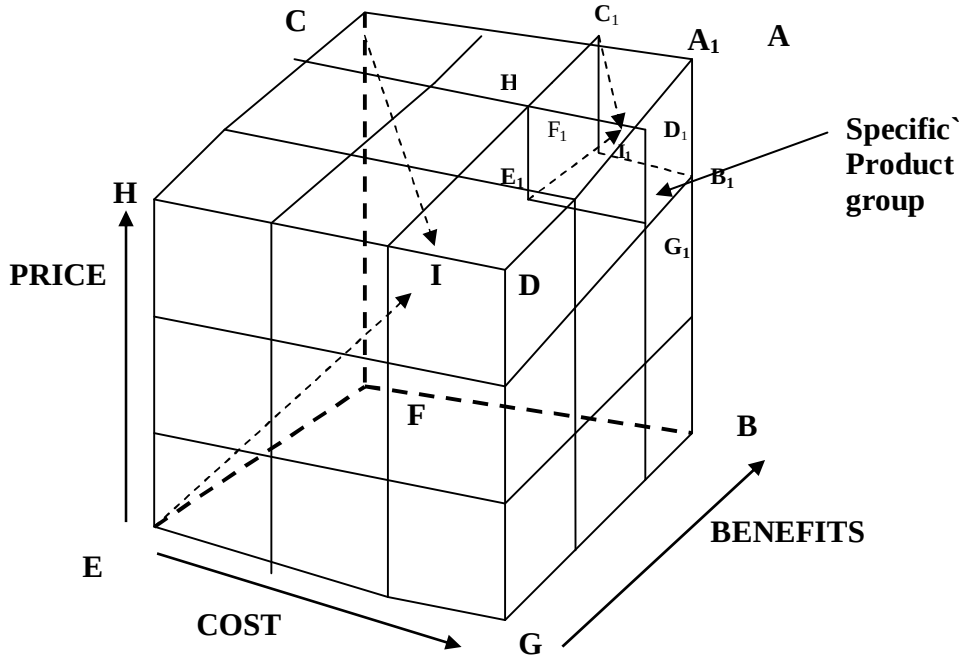


Figure 3: The Strategy Cube divided into product groups

Table 2: Representing other models on the Strategy Cube

Model	Model position	Position in cube	Commentary
Porter's Generic strategy	Focus: cost leadership	E	This suggests a small segment but not necessarily. If a low cost product displaces other products around it or leads competitors to realign their strategies then the standard product is redefined. This may be the case in the European airline industry. Thus it may be that the short and long haul airlines markets are two quite distinct entities. In the short haul market the "no frills" product" has `the largest market share. Thus there is a limited range of products in some markets.
	Focus: differentiation	A	This suggest a small segment
	Broad differentiation	Between I and A	There maybe a number of viable positions.

	Broad cost leadership	Between E and I	There are likely to be only a few positions
	Not viable strategies = Stuck in the middle	H G D and B, under those circumstance when a move because of scale economies isn't possible	There may be places where thee is not balance between price and benefits that consumers find attractive OR is not viable from a cost benefits point of view
The Strategy clock	No frills	E	As above
	Focus: differentiation	A	As above
	Broad differentiation	Between I and A	As above
	Price leadership	Between E and I	Johnson et al acknowledge a relationship between price and cost
	Hybrid strategies	Around the line between I and the centre of the plane ABCF	To gain higher benefits at moderate prices and costs through the implied skilful use of resources. If competitors move the same away the standard product is redefined. If competitors do not move the same direction without environmental shocks ultimately the standard product will be also redefined as competitors lose market share.
	Failure Strategies	Any point on the line HD	H but also see comments above about non –viable strategies
Thompson et al.'s Five generic strategies	Best cost provider		As For the strategy clock Hybrid strategies
	Other strategies	Are the same as Porter's	

Exploring theoretical ideas using the Strategy Cube

Economies of scale and scope or chaos and confusion: where focus strategies will work Hill suggested that if products could be manufactured and/or marketed together scale economies could be achieved. In some instances when there is not a large enough segment prepared to pay a high enough price to cover the costs of the production and delivery of a product then product "bundling" may be a route by which fixed costs can be shared over larger volumes. If, however, supplying different grades of product causes customer perception and production/delivery problems (Skinner, 1974) then limited range supply may be the best option. An additional factor that should be considered is the ability of management to manage diversity; some management teams may be able to make links between activities that escape other management teams. In this sense it is necessary to recognise the key importance of resources that are bound up in the capacities of people and the systems within which they operate. If multi range suppliers can gain such advantages then focused suppliers are unlikely to exist. Equally when the supply of large product ranges causes internal management difficulties and

marketing incompatibilities, then more focussed suppliers may outperform broad range suppliers. It is clearly important that managers can distinguish between areas where their company can grow profitably and areas in which there are no synergies. Management systems and managers are important sources of resource advantage. Campbell et al. (1995) have discussed this idea in a corporate context by using the concept of parenting. However, a business model successful in one period may become unsuitable over time (Miller, 1991; McGahan, 2004). The strategy cube can be used to discuss these areas and evaluate the volume of the cube that is viable for one organisation to manage. This can lead to the discussion of questions in the "Real World", for example: Why do car firms have many product ranges? Why have "full service" global airlines historically failed in the no-frills sector? Are there points in the cube that are incompatible in some industries but compatible in others? What are the particular circumstances that make this so? Why?

Innovation and the dynamics of competitive advantage

If a firm is in a stable environment and resources are imitable we would find a positive relationship between cost and benefits (and rationally price), i.e. as one increases so would the others. The only non-imitable source of cost advantage would be scale. If a firm produces an innovation that gives it a non-scale advantage then it can disturb this relationship. Bogner et al. (1999) have discussed the difficulty in sustaining resource advantages which are embedded in people and that when key personnel leave organisations their contribution to the development of future resources goes with them. They distinguish between unique resources, which give current competitive advantage, and core competences, those people based resources that create future unique resources. If these human resources can move around industries then the firm has limited ability to protect this kind of resource. Resource immitability exists but for only a short period. In this situation the cube model can map how one firm can move to a position in the cube that allows it to produce product benefits that no one else can, either at the same cost or at all. This would place the innovative firm around the line CF in the cube. However, a firm may be able to convert a temporary competitive advantage into a longer term one by capitalising on its superior position. Organisation learning and the building of complex intangible relationships may limit immitability and produce sustainable competitive advantage. In the above circumstances the idea of a standard product then becomes redefined as the axis of the cube is adjusted to match the new perception of the product. This is readily demonstrable when ordinary products like cars, televisions and computers are considered. What was once at point I move to a position nearer to the plane ABCF.

The Strategy Cube in student case analysis

The argument made is this: the strategy cube because it has three variables which uses both market and resource position variables (benefits as stated above serves both as customer perceived benefits and beneficial feature). It draws students' attention to the complex nature of strategy as defined in Johnson et al's definition. It is also taught as a mapping tool to think about the ideas of the resource based school

and the positioning school at the same time. Whether this has been successful can be judged by examining two student answers to question about the competitive strategy of BMW, these are shown in Appendix 1. Note: these students' first language is not English

An examination of the answers indicates some appreciation of the complex nature of competition, strategy and competitive advantage. Unfortunately the answers are indicating claims about costs that need more clarification. It is intended to examine more student answers and modify the taught input on the basis of those answers. In this way it is hoped to identify the key (threshold) competences that students need to know to have a "professional" grasp of competitive advantage,

Conclusion

Over the last 25 years, since Porter introduced his generic strategy framework, the teaching of competitive strategy in business schools has been dogged by a search for a variant of that model that can straightforwardly classify a firm's strategy into distinct and limited categories. This search has also been influenced by the resource based view and he possibility of an alternative perspective on competitive advantage. This paper has argued that an appropriate way to understand the competitive behaviour of firms is to use intensive studies based on both ideas of market position and resources. To this end a framework, the strategy cube has been proposed to support such studies. An examination of student assignments using this model indicates that some progress has been made about getting students to think more deeply about competitive advantage (this is the only time this approach has been used). However, there are still areas where student understanding needs to further probed. In future it is intended to interview students about their assignments in order to gain a greater understanding of those concepts they find troublesome. This process will be further illuminated by interviews with teachers of strategy. In this way it is hoped to develop a more professional approach to teaching strategy.
This last ambition is coherent with the ideas expressed by Bennis and O'Toole (2005) of developing professional managers with enhanced critical thinking skills.

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Appendix 1

Student 1

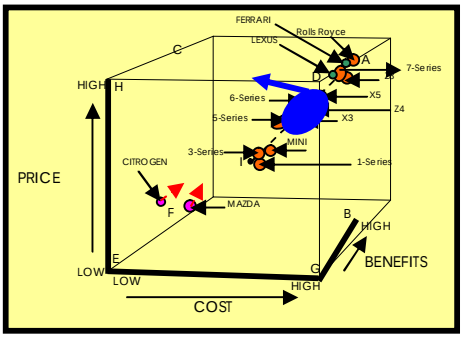

Figure 13 – Applying Strategic Cube Framework to BMW (Jenkins 2004)

On applying this framework (strategic cube) on BMW (as shown in Figure 13 and Table 4) it is seen that all the dots (BMW models) are all on one line from A to I, where A representing high benefits, high cost, and high price and I representing average benefits, average cost, and average price. Rolls-Royce (Phantom model) is placed on point A of the cube and BMW 1 and 3 Series are near to I. Wider the dots around the cube, it can be said that the firm is in reducing the risk i.e. through the process of diversification. In case of BMW, the dots are closer and on one line. Thus, it can be said that the BMW firm is successful in achieving its synergy in terms of market, cost, and resource (i.e. increase efficiency, share expertise, reduce cost by achieving economies of scale in production, pool resources, increase market share, increase revenue from wide range of segments, etc

Student 2
BMW takes advantage of economies of scale which reduces the unit costs significantly with quantity; one of the major aspects of barriers to entry (Porter, 1980). As a differentiator, BMW it offers products with high level of perceived benefits than average (Jenkins 2004). According to Jenkins (2004) model, BMW products should be positioned close to the plan ABFC on the strategy cube; see Appendix, Figure-3. Position A is the differentiator through high benefits which incur high cost and high price; this is position of Rolls Royce Phantom. The assumption here is a linear relationship between cost, price and benefits as Porter suggested. Due to competition at this niche of the market, the challenge for BMW is to find out what benefits will justify certain price or vice versa. Another challenge for BMW is to maintain the perceived benefits high enough to maintain the linear price-benefits relationship as customers change their views and what was perceived as luxury feature at certain time could be seen as modal later. For the rest of products, the current position of BMW is close to I; average cost with average price and average, benefits or slightly above. As this segment is populated

with innovators, the dynamic of the market will disturb the linear relationship between cost, price and benefits. According to proposition 11a, above average profit will be competed away without collusion (Jenkins 2004).

In car market, competitors are imitating each other, although there will be a period that BMW will benefit from being differentiator, however, as competitors develop more efficient methods of production, no long-term advantage will accrue and all gains will be passed to customers (Jenkins 2005). Customers therefore will perceive above average benefits as average or below. This means, there is a risk of BMW products to move from I to the low benefits frontier HDEG. As positions D, G and H are untenable, BMW products will move to position E and loses its position as differentiator (Jenkins 2004).
Positions close to B could be used to lunch products as short term marketing strategy, like 1-series or discounting existing models. It is essential before implementing such strategy to know how customers perceived value as a function of benefits and price. There is always a risk that position of the product could move towards E via I as with time customers will perceive high benefits as low or modal. Assuming customers' perceptions kept the same, as BMW can't keep new products, or discounted, at position B for long time, if BMW increases the price after short introductory period, new products, or discounted, could move to current position for existing models (I).