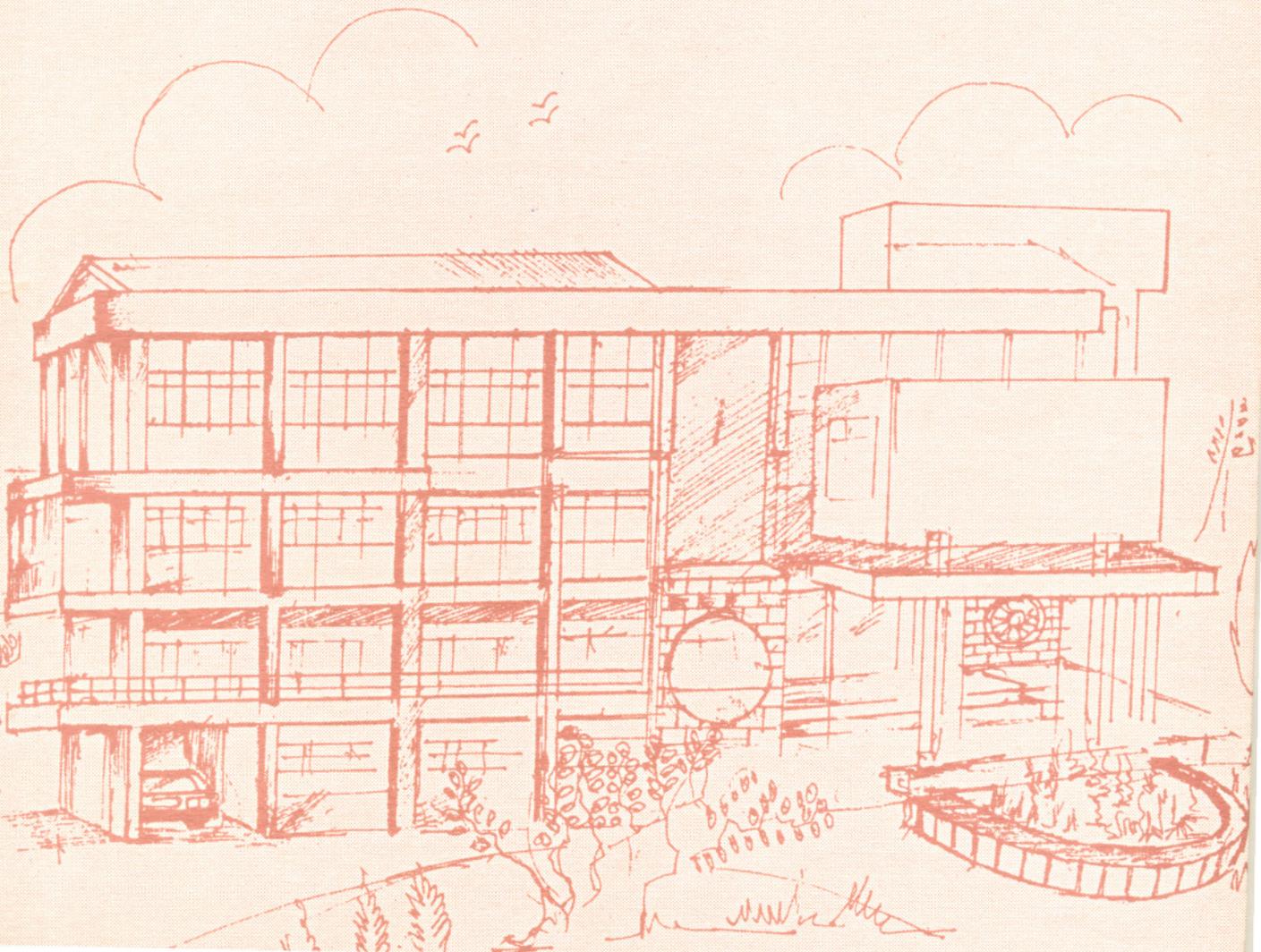




No. 36

## Working Paper Series

**Pure and Applied Research in  
Business – Whence Shall the  
Twain Meet?**



# Pure and Applied Research in Business – Whence Shall the Twain Meet?

**K.Sankaran**

Professor

T.A.Pai Management Institute

Manipal-576119

Karnataka, India.

Email: [sankaran@mail.tapmi.org](mailto:sankaran@mail.tapmi.org)

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**T. A. Pai Management Institute**

**Manipal –576 119, Udupi Dist., Karnataka**

# Pure and Applied Research in Business –

## Whence shall the Twain meet?

### A Research Note

**Abstract:** There is an inherent tension between management practice and theory and this leads to undue expectations of researchers contributing *directly* to contingent practice. To lessen this, this paper suggests that practitioners and theoreticians understand the antecedents of social science research. The scientific and positivist paradigm has equated the *process* of natural science research with social science research. This Research Note suggests that this may be misleading. The theory – practice continuum, this paper argues, has three principal custodians – viz., the practitioner, the consultant and the researcher. Each of these has its separate referents. Viewed in this manner, we can see that the consultant's domain is Applied research and that that of the researcher is Pure research.

This distinction of applied versus pure makes clear the role of the researcher and that of the consultants. This view has implications on such matters as breadth and depth of research, analytic induction and enumerative induction, mutuality of pure and applied research, primacy of referents, expedient practice versus patient theory building.

### Introduction

In the world of business research and its environs there is always a nagging suspicion that research may not be contributing much towards practice; that research is antithetical to doing or getting things done. The argument is that undue thought orientation negates action orientation, or less severe, that research leaves out key action points out of its domain to deal with less-than-important ground issues (Cheit, 1991, Hambrick, 1994).

The research community is periodically warned of irrelevance within and without and is called upon to deal with practical issues that genuinely concern management practitioners (Myers, Massy & Greyser, 1980). While everyone exalts in the need for practical relevance, there are different views on how to do this. While some seek more experiential learning (Kolb, 1984), other seek

contingent theories (Lawrence & Lorsche, 1967) and still others ask us to go back to even more vigorous theory building (Donaldson, 1996)

This article borrows from the earlier tradition of conceptualising research in terms of Pure and Applied forms (Gay & Diehl, 1992), but with a difference. Pure and Applied Research, terms borrowed from the scientific lexicon, refer to two end of a linear continuum; “pure” is closer to an idea, and “applied”, closer to application. The referent is the idea – application continuum. Definitionally therefore, research that is closer to the practical level, viz., applied research, is considered more immediately useful for practitioners.

This article argues that such a linear view of business research, borrowed straight out of the science vocabulary, has created an unnecessary and unhealthy mismatch between theoretical and practical standpoints.

This article explains, with examples, why it would be more useful for business research to define Pure and Applied research in terms of *different* referents and its implications for research methodology. By doing this, limitations and potentialities of pure and applied research could be held in better light.

## **Business Research Paradigm – Its Antecedents**

Most of the research in business (that usually comes of the academia) resembles that of the social sciences, which has its antecedents in natural sciences. During the pre-industrial era, natural sciences were concerned with discovery of natural laws. Later, during the industrial and post-industrial periods, sciences were called upon to serve more practical concerns. The result has been the bifurcation of the erstwhile sciences into pure sciences and technology. This bifurcation has also influenced their respective research streams; and hence the notions of pure and applied research.

The movement from an idea to an object useful to humans always passes through the intermediate phases of “pure research” to “applied research”. This has dominated all scientific developments (Rawat & Rao, 1995).

Take the example of the most well known cases of this process -- the birth and proliferation of the incandescent bulb – which is a legend now. When Thomas Alva Edison discovered that electric energy could be converted to light energy, he took several years to develop a model of a bulb in the laboratory. This was pure research. He had to demonstrate that, indeed, his idea is reality and not a figment of his imagination. In the process of doing this he had to test hundreds of materials and their combinations for a fail-safe material, and find out the right inert medium in which the right amount of electricity would pass through the material etc. The important aspect of the research here was development of the conditions for reliable replication of experiment; in other words, the right materials and the right experimental protocols (or process). The next step was commercial in nature; scaling up to larger-scale production. Here in came the value of applied research whose purpose was to develop commercially viable materials and mass scale production processes. Again, a matter of materials and processes, but of a larger scale. No wonder pure and applied researches were qualitatively same; they were only quantitatively different.

Now, as the positivist and scientific temper spread to the study of social entities, the methodology and lexicon common to natural sciences came to be increasingly borrowed by social sciences. Business management was, and continues to be, no exception. Ideas such as “scientific management” or “management science” came to represent the scientific temper.

But there is more to management than the scientific method. For example, ideas such as Strategy as pattern (Mintberg & Quinn, 1996), or Enactment (Weick, 1979) which in essence oppose the notion that objectivism (and thereby science) is the only epistemological tool available for understanding and influencing business management practices. More recently, aside from objectivism, there appeared many other epistemologies, theoretical perspectives and methodologies which

social sciences have accepted (Crotty, 1998). These are equally valid for business management research too.

This bewildering plethora of approaches, complexity of knowledge generation and application, support from information technology, view of knowledge as a principal asset (Teece, 1998) have all together created the relatively new field of knowledge management. Within this milieu, conceptualisation of the referent in Business Research as the linear idea-application continuum (again, borrowed from the scientific tradition) is clearly inadequate.

### **Three levels of Knowledge and their Referents**

Knowledge management, as it applies to business management consists of managing knowledge at three fundamental levels. First level knowledge consists of the immediate, tactical level expertise. This is called upon to take quick on-the-spot decisions. This is best tested when a crisis occurs, or when a significant degree of “management by walking around” exists. The management practitioners are generally expected to have a high degree of first level knowledge in reacting and dealing with situations of one-to-one leadership, negotiations, responses to crisis situations etc. Here the time available is limited and decisions are made under limited information and scarce, or inadequately mobilised, resources. Time (as opposed to timing) is an important factor here. First level knowledge helps managers gain tactical and political advantage in their day-to-day activities. Here the referent is the *situation*. First level knowledge helps the possessor of requisite knowledge to adequately deal with or save the situation.

Second level knowledge is required for making pre-meditated moves. Plans are the common mechanisms by which pre-mediated moves are formalised and communicated. This kind of knowledge is required for managers to understand and relate to situations their organisations face. In trying to understand issues in a realistic and comprehensive manner, managers develop alternative scenarios of decisions and actions, conceptualise their pros and cons, and finally, select the best course of action. Strategic Planning is an activity that would call forth a high

degree of second level knowledge. It is easy to see that the referent here is collective; the collective of activities, individuals, elements within the organisation, elements outside the organisation, and such other entities and their interactions that collectively make the organisations perform. This collective, in one word, is the organisation itself. This brings us to the point that the referent of the second level knowledge is the *organisation*.

The third level knowledge is the ability to act in the light of seeing the larger picture, the larger interconnections, and knowledge of meta-protocols that have application possibilities in disparate circumstances. This knowledge is self-transcending and tacit (Nonaka & Takeuchi, 1995). Here knowledge has application possibilities within a wide time-space domain. Such knowledge seeks their authenticity from an ideal, identity, need to recreate or participate (Nonaka, 1991). In the potential for tacit knowledge to become explicit knowledge lie its true strength (Nonaka, 1991). Knowledge that is already explicit are truisms, or things that are known universally, and is part of the coded wisdom of the collective of individuals, whose reaffirmation becomes trivial.

Insights therefore provide validity to third level knowledge. But less obviously, validity also comes from the generality of its application in the time-space domain. The more general they are, the less context-specific they become. One may be tempted to construe this as third level knowledge's shortcoming. But no... that precisely is their strength! Third level knowledge is full of potentialities with deep meaning and wide application possibilities. Yes, the application requires wisdom for application and can only applied by the right person, nay, the right mind.

Third level knowledge is about ideas. The triumph of third level knowledge is the triumph of ideas. It is not difficult to see that the referent here is the *idea* itself.

A few more points about third level knowledge and ideas would be in order. When an idea is established as valid, it becomes a principle; for example, when a valid idea has moral implications it becomes a moral principle or when a valid

idea has to do with the nature of the universe it becomes a scientific principle and so on. In the business world (and other social sciences), the universe of valid ideas, or principles, is too complex; perhaps far too complex with far too many caveats than their natural science counterparts. A mind that faces up to this complexity (Cook, 2000) with felicity is what strategic thinking is, something that management thinkers have been exhorting practitioners to develop.

Managers are called upon to exercise all three types of knowledge at different points. One feeds into another; another draws from the other. For example, Strategic thinking is not divorced from strategic planning; good strategic planning needs strategic thinking. In other words, we see that there is a coupling of third and second level knowledge. Similarly, smart, quick, tactical moves are possible to a greater degree with a good grounding in strategic thinking. In other words, second level knowledge feeds the first level.

Practitioners are the ultimate knowledge beneficiaries, and the utility of any level of knowledge rests on its use to the practitioners. But the source of generation of the three levels may not lie with the practitioners alone. Who else should they share that responsibility? The answer is “That it depends upon the knowledge referent”. That is whether the referent is the “situation”, the “organisation” or the “idea.”

The three referents – and the corresponding levels of knowledge – seem to form a natural hierarchy. Take the case of three means of improvement Industrial Engineering (IE) seeks; work study, method study and motion study. The symmetry between these IE techniques and our three knowledge levels is striking. IE suggests that at the most elementary level, work has to be measured and improved upon. This is achieved through Works study. At the next level comes the study of methods, something that defines the work itself. This is known by the term “Method study.” It defines and refines the work that human beings perform in workplaces. At an even higher level is the “Motion study” which defines general principles of motion of human limbs and body and is concerned about meta-rules and principles that apply to all physical effort at workplaces.

## **Practitioner – Consultant - Researcher Triad**

Corresponding to the three referents there are roughly three professional groups whose responsibility it is to generate the knowledge that the practitioner ultimately utilises and gains from. These are the practitioners themselves, consultants and researchers. These are archetypal role definitions and no institution or individual would strictly correspond to one and only one role definition. But it would be right to connect practitioners with the first referent, viz., situation, consultants with the next, viz., organisations and researchers with the third, viz., ideas. It must be noted that the Practitioner-Consultant-Researcher Triad as represented here is more conceptual than actual. For example, a management practitioner who works in the corporate development/planning department of a (say) manufacturing organisation would be performing a consultant's archetypal role according to this definition. Similarly, the chief executive of a large corporation mulling of an entirely new way of adding value to the customer would be, for just those moments, taking on the role of a researcher etc. The researcher who chronicles instances of tactical moves by a practitioner would only be working at level one knowledge. However if he or she theorises upon tactical moves it would move into the realm of level three knowledge.

## **Applied and Pure Research**

Now we are in a position to redefine what "applied" and "pure" research are in the context of business management. We can no longer think of them as two points on the linear thought-versus-action continuum. Applied research in business management is that research conducted with organisation (or a sub unit of the organisation such as a strategic business unit, a functional area or a division) as the referent, and pure research is one with idea as a referent.

Several implications follow in so defining applied and pure research in Business management.

- 1) The referent or “unit of analysis” in applied research for the most part is the entire organisation while for pure research it is an idea.
- 2) Applied research would deal with commercial issues such as a) whether the organisation should enter a new field or not, b) the means to enhance profits by cost cutting/ revenue enhancements etc.
- 3) By defining the organisation (or in some cases, a subunit of the organisation) as the referent, the consultant is forced to deal with a large number of diverse factors cutting across several functional and divisional areas. For example, a decision to introduce a new product within an existing product line will have implications on altering communication channels with the consumer, avoiding cannibalising of one’s own existing brand, understanding cross subsidising of production costs, computing profitability measures in a new manner etc.
- 4) Pure research, the domain of researchers, cannot be directly applied to an organisation. By its very nature, knowledge that pure research produces is general. The higher the generality of a piece of research, the higher the domain of its applicability and its power. The power of its generality is at the cost of accuracy, and hence, directs implementability. Remember Thorngate’s postulate of commensurate complexity (Weick, 1979) wherein he states that it is impossible for a social theory to be simultaneously general, accurate and simple: three most desirable characteristics of good theory.
- 5) Utility of pure research in business management, though ultimately decided by its applicability and use to practitioners, is mediated by the task of interpretation by the consultants. In other words, pure research has to be assessed and tailored for specific application by the consultant. The consultant could be, say, an external consultant, an internal analyst, training department of a corporation, an academic-consultant and so on.
- 6) If the practitioner were too hasty to implement the results of pure research there would be communication loss and misjudgement. A certain “customisation” may be required for ideas from pure research to be profitably used in practice.

## **Breadth and Depth of Business Research**

Applied and Pure research defined in terms of referents throw light on a number of vexatious issues such as applicability of statistics, and choice and development of research methodology. Those doing applied research have to deal with a far greater breadth of issues that apply to the entire organisation (or a sub-unit of it) than those who do pure research. Pure research on the other hand is likely to have a greater depth and wider application possibilities.

Znaniecki (1934) {see also, Robinson (2000)} makes a distinction between *analytic and enumerative induction*. This distinction is useful to understanding the difference between pure and applied research. Pure research, with its emphasis on its own the research process (consisting broadly of research question, propositions, hypotheses and conclusions), criticality of sample selection, choice of measurable variables etc. promises statistically validity or conditions for valid *enumerative induction*.

Not so with applied research which works with far greater numbers of disparate variables, complexity compounded by fuzzy interactions. Here the unit of analysis is the complex of organisations or their sub-units. Conclusions are based on valid *analytic induction*.

Notwithstanding these differences between pure and applied research, the two are related in a mutually reinforcing manner. One feeds into another as shown in the schema below. It can be seen that the breadth and depth are the two essential characteristics that differentiate the two.

Please refer to Figure 1 at the end.

## **Referents and Business Research Methodology**

The implications of the notion of referents introduced here to research design and research teaching is significant. Traditionally Research Methodology taught in the universities and management institutes presupposes that the referent requires depth of inquiry and, hence by definition, would be of narrow domain. In other words, it is assumed that the subject matter is *always* of “pure” nature.

**Pure Research and Research Methodology:** Figure 2 shows the various steps involved in a pure research process. This is based on what the researchers [for example, Kerlinger (1973)] see as the cascading phases of the research process.

The first step in research methodology as it applies to pure research is deep scholarship in the area, represented by Box 1 in Fig. 1. Such scholarship produces not only a keen familiarity with the subject, but it also paves the way for a creative leap into some interesting and insightful interrelationship, as shown by the dotted arrow from Box 1 to Box 3. For most of social science research these interrelationships are in the form of cause-effect relationships (Ackoff, 1981).

The existing knowledge in a specified area is formalised through the literature survey. At the most elementary level this consists of chronicling and classifying previous research in the area. The literature survey, more importantly, consists “pattern recognition” of the collective intellectual comprehension of the field under study by scholars, or for short, meta-analysis. There are many examples, one being that of corporate diversification by Ramanujam and Varadarajan’s (1989).

The next step consists of theory building, or conceptual model building, wherein the researcher comes with a new theory or concept that is a genuine extension to the existing knowledge. The theory so developed is largely deductive and there is yet no proof that it is indeed empirically right or wrong. Therefore, empirical testing backs many research studies. Towards that end the step is the statement of the “Research Question”. This is a fundamental question from which comes certain key assertions, or propositions. While there would be just one research

question, the number of propositions could be as many as ten depending upon the research design.

Propositions lead to hypotheses. The assertions made by the hypothesis are directly testable. For statistical testing purposes, hypotheses are represented in terms of null and alternate hypotheses. Less often, propositions are directly tested. An example of the former would be Sankaran (1993) and for the latter, Lant & Mazias (1995). Statement of propositions and hypotheses are followed by statistical test, interpretation of the results and conclusions.

While it would be too cumbersome to highlight the entire “pure” research process through an example, it would be instructive to take a leaf out of a typical “pure” research and shows how a research question, propositions and hypotheses are formulated. This is shown in Annexure 1.

**Utility of Pure Research:** Broadly utility of pure research are twofold: first, the insight the theoretical model itself provides, and two, the empirical findings. The theoretical model allows for emergence of new variables that are interesting and useful, throws up new classification schemes and allows for hitherto unexplored interrelationships to be sought for. For example, in the diversification research alluded to earlier, the theoretical model allows reconceptualisation of M&As and gives a framework to examine synergy in M&As.

The benefit of pure research is also in terms of the empirical findings, which uncovers actual relationships. If there is strong empirical evidence towards new relationships, there is good scope that the finding may be more easily led towards practitioner benefit.

**Research Methodology for Applied Research:** The methodology highlighted by Figure 2 is inadequate and inappropriate for applied business research; there are too many broad issues to be tackled and the narrowness (and hence precision) of pure research methodology would be a handicap. To tackle business situations we find that consulting firms have developed their own methodologies for applied

research. While there is no one method, there is a good reason to say that that the McKinsey club the work of consultants general agreement amongst a simple yet powerful methodology that McKinsey Consultants use is the Initial Hypothesis, or IH method (Rasiel, 1999). This method has been extensively worked upon by a former consultant at McKinsey and developed into what is called the Pyramid Principle (Minto, 1995). The basic principle here is that all human thoughts, or less ambitiously, all analysis including those in problematic situations can be represented in a pyramidal fashion.

Perhaps the best way to present Pyramid Principle would be to show its application used in a real life situation. Let us take the case of a consulting assignment wherein the client asked the consultant to evaluate the scope for introducing an electric car in the market. Figure 3 shows the IH Statement in terms of the following diagram.

Please see Figure 3.

The IH for this research follows the generic pyramidal structure which is suitable for the type of question this research is supposed to answer; viz., whether the management should make an investment or not. It may be noted that the pyramidal structure is ideally suited to answer yes/ no questions where the cost of failure after having taken a “yes” decision is heavy. This generic structure has a series of statements at the base of the pyramid (please refer Figure 3) which are connected to each other through the proposition “and”, “and” and so on. Hence the IH here is “The product can be profitably introduced in the market if conditions “a” is true, “b” is true, “c” is true and so on.” All the conditions need to be true to make the investment worthwhile. The basic pyramidal perspective suggests that it can also be used where the connecting proposition is “or”, “or/and” etc. (Rasiel, 1999).

Despite the great simplicity of the statement above this methodology creates an extremely tight logical framework that is mutually exclusive, collectively exhaustive (or MECE for short in McKinsey parlance). The framework is also

flexible in terms spreading the pyramidal base further down to more detailed inquiry.

In the car project alluded to earlier, the IH lead to the detailed information requirements that are shown in Annexure 2. It can be seen that the pyramidal conceptualisation of the problem and the data needs that follow automatically ensured a very tightly woven argument for either introducing or not introducing the car in the market under consideration.

**Imagery of “pure” and “applied” research:** It appears that the difference between “pure” and “applied” business research can be visualised respectively in terms of the shapes of an hourglass and a bloated-at-centre cylinder.

This can be visually represented in Figure 4.

In the case of former the researcher starts with a plethora of research ideas already available in the literature. The conceptualisation of the “research question” funnels the ideas to a focal point and helps clarity of focus. Again there is a loosening of the range when the researcher develops the propositions and the hypotheses.

The case of applied research is exactly opposite. The researcher starts with a narrow question such as “How do I increase profits?” or “Should I introduce the new product?” This is the question the apex of the pyramid represents. As the apex generates the base of the pyramid there is an expansion. This again shirks to a few key findings/ recommendations such as “Increase profits through realising higher economies of scale” or “achieve cost rationalisation” or “enter the market” etc.

## **Concluding Remarks**

While taking the research idea from Natural Science, Social science (and more pointedly Management Theory) has to understand that its referents are not symmetrical to those of the former. When we have this understanding, we will

begin to look at pure and applied research in Management in a different light. This would be required for a healthy development of knowledge in the field. We will then begin to marry theory with practice in more creative and productive ways. If that happens, practitioners will be able to better take the benefits of research efforts to their market places, or their quintessential shop floors. Researchers, on the other hand, will be less apologetic about “theory building” and “seeking deeper truths”; they will be able to turnaround and be partners in action to create a better tomorrow.

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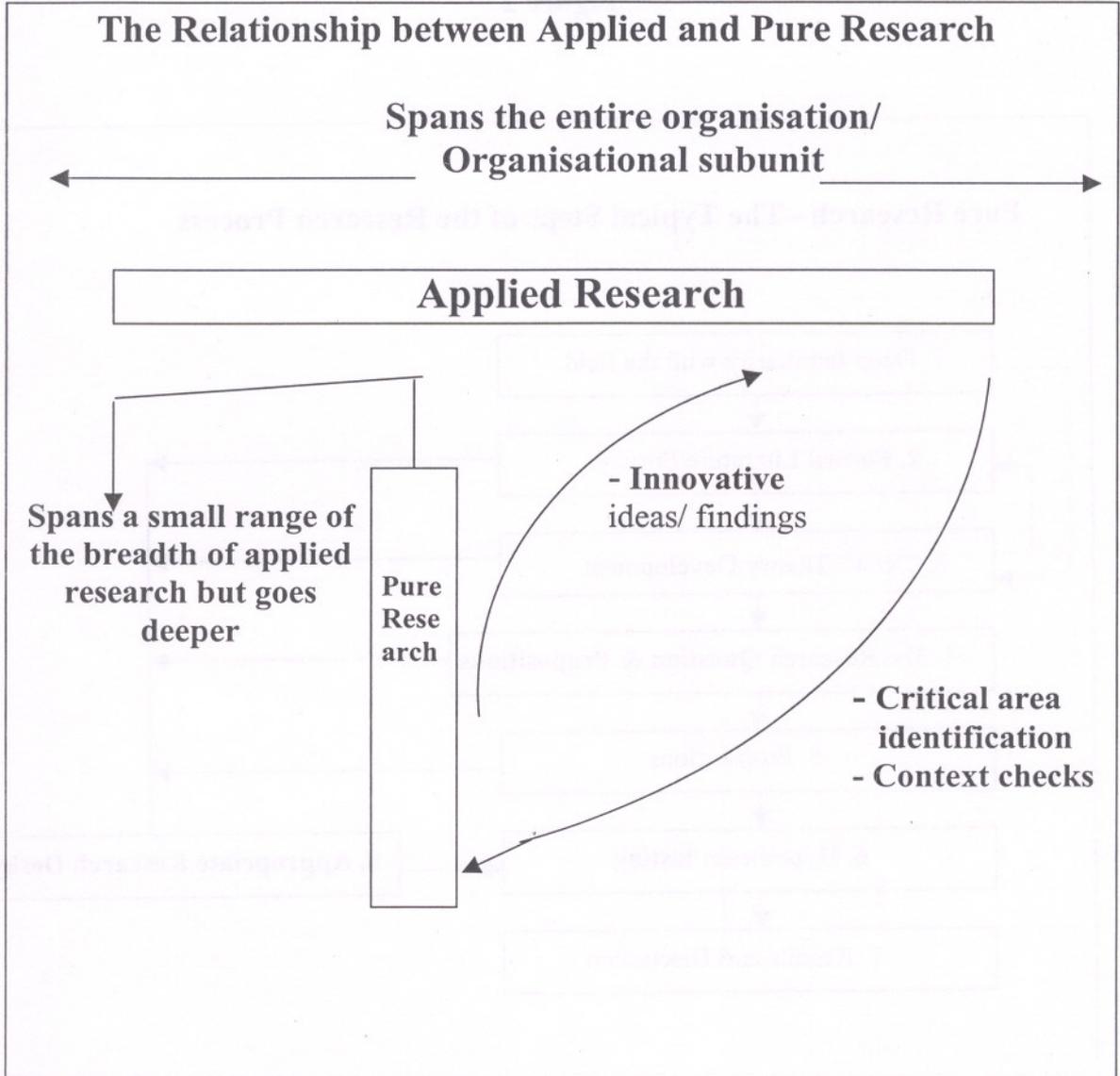
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Figure 1



## Pure Research –The Typical Steps of the Research Process

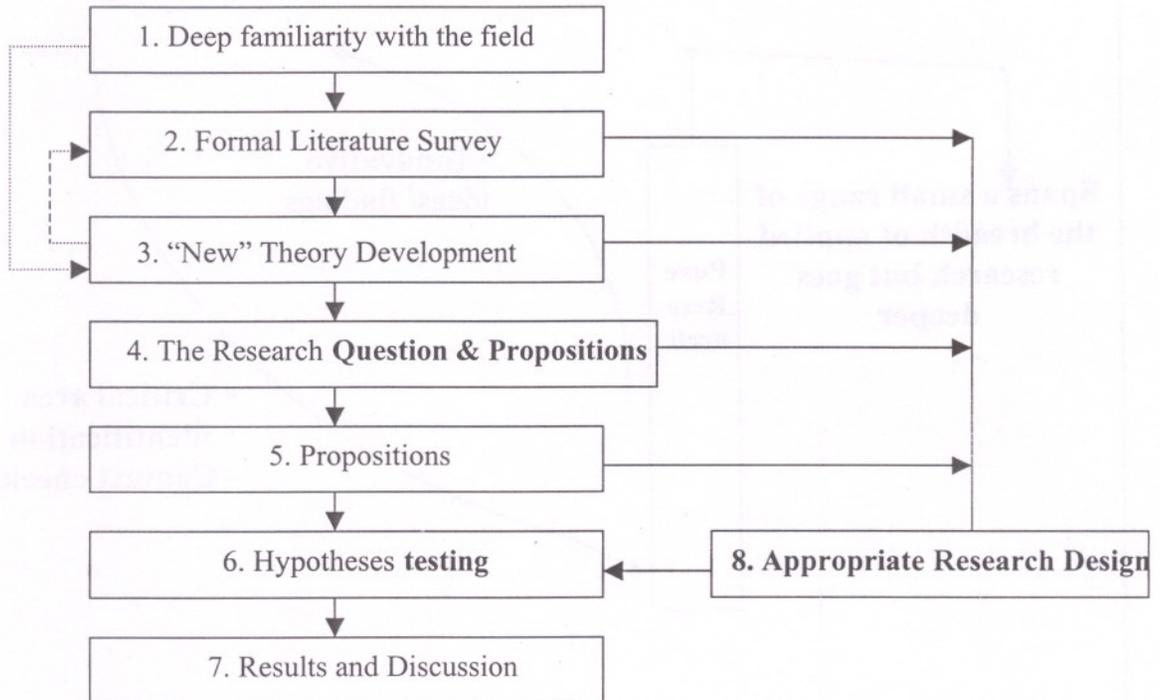
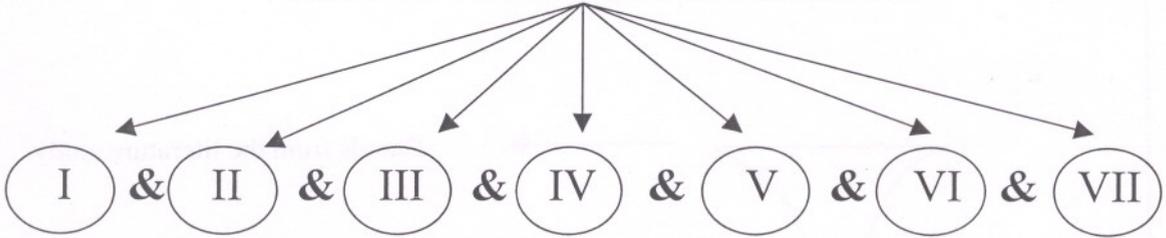


Figure 3

**Applied Research: Development of  
Initial Hypothesis using the McKinsey Way**

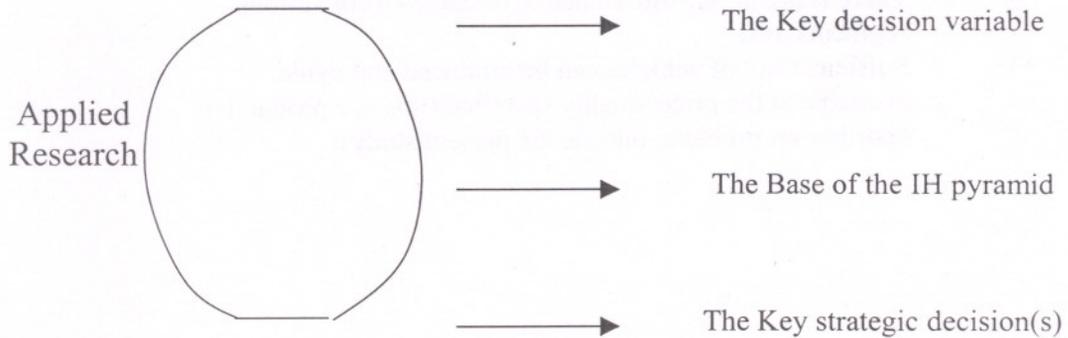
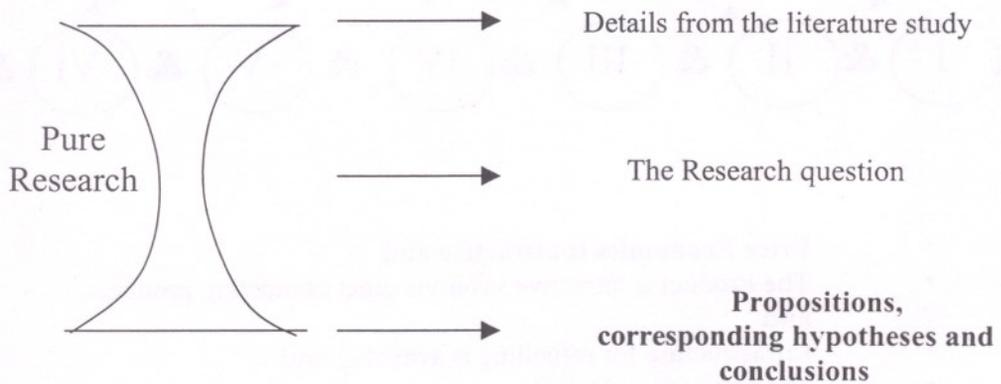
ELECTRIC CAR could become a reality if...



- **Price Economics is attractive and**
- The Product is attractive vis-à-vis other competing products **and**
- Infrastructure for refuelling is available **and**
- The Image is right **and**
- There is sufficient size of buyers for whom price economics and product are attractive **and**
- There is are no un-surmountable obstacles from various segments **and**
- Sufficient no. of vehicles can be produced and made available at the price/ quality specified (this is a production distribution problem, outside the present study).

Figure 4

“Pure” and “Applied” Research Process –  
A Visual Representation



## Annexure 1

### Development of the Research Question, Proposition and Hypothesis for a piece of pure research in Corporate Strategy

Component of Research	Details	Comments
The Theoretical Model	This consisted of a typology of Diversification depending upon the “synergy rationale” for mergers/ acquisitions (M&As).	The theory was developed based on ideas from strategic management, economics and industrial organisation. The typology consisted of two dimensions: Dominant synergy level.
Research Question	Do firms seek certain patterns of synergy in diversification and, if yes, what are the performance implications?	
Research Design	The research design involved computation of NPV of future expected earnings as reflected in the stock market prices of acquiring and acquired companies around the merger/ acquisition date. It consisted of the development of a measurable performance indicator taking into account both the acquiring company and the acquired company’s stock price movement.	
Sample propositions and corresponding Hypotheses	<p><b>Proposition 1:</b> The combining firms perform better following a merger or acquisition in comparison to their pre-merger performance</p> <p>Corresponding Hypothesis:  <b>H<sub>0</sub>:</b> The WADVC of the firms involved in M&amp;A are less than or equal to zero around the merger or acquisition event.  <b>H<sub>1</sub>:</b> The WADVC of the firms involved in M&amp;A are significantly higher than zero around the merger or acquisition event.</p> <p>Proposition 2: Market Expectations of M&amp;A performance varies according to the dominant synergy level associated with the M&amp;A</p> <p>Corresponding Hypotheses:</p>	WADVC (weighted average value change) was the performance measure which took into account the abnormal returns of the acquiring and acquired firm weighed according to the market capitalisation of the two firms.

	<p><b>H<sub>0</sub>:</b> There is no significant difference in the WADVC around the merger of acquisition event across M&amp;As classified according dominant synergy levels.</p> <p><b>H<sub>1</sub>:</b> There exists significant difference in the WADVC around the merger of acquisition event across M&amp;As classified according dominant synergy levels.</p>	
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## Annexure 2

### Development of the Research Question, Proposition and Hypothesis

#### for a piece of pure research in Corporate Strategy

#### **I. Is Price Economics Attractive**

- 1.1, Fixed Cost
- 1.2, Running Cost
- 1.3, Cost of Repairs
  - 1.3.1, Preventive
  - 1.3.2, Breakdown
- 1.4, Likely resale value (Durability and life)
  - 1.4.1, Loss due to wear and tear
  - 1.4.2, Loss with internal combustion engine vs. loss with electric engines.
- 1.5, Financing Schemes
  - 1.5.1, Ease of Availability
  - 1.5.2, Cost of financing

#### **II. Is the Product Attractive vis-à-vis existing and likely products in the market**

- 2.1, Convenience
  - 2.1.1, Driver Comfort
    - 2.1.1.1, Speed
    - 2.1.1.2, Acceleration
    - 2.1.1.3, Feel
  - 2.1.2, Riding Comfort for non-drivers
- 2.2.3, Breakdown repairs
  - 2.2.3.1, Frequency
  - 2.2.3.2, Availability of w/shops
- 2.2.4, Ease of preventive repairs
  - 2.2.4.1, Frequency
  - 2.2.4.2, Availability of w/ shops
- 2.2, Carrying Capacity
  - 2.2.1 Adequacy
  - 2.2.2 Performance at higher weights
- 2.3, Parking
  - 2.3.1 Ease of manoeuvrability
  - 2.3.2, Space required

- 2.4, What will this Electric car replace?
- 2.4.1 Benchmarking Against other competing vehicles
- 2.5, Other Electric Cars?
- 2.5.1 Which are the other electric cars that are likely to hit the market
- 2.5.2 How they fare vis-à-vis factors 2.1 to 2.4

### **III. Does infrastructure for refuelling exist?**

- 3.1, Infrastructure availability
- 3.2, Control over facility (price and service maintenance, availability of electricity)
- 3.3, Business Network Model

### **IV. Is Image right?**

- 4.1, Will image come in the way of acceptance of the small electric cars
- 4.2, if yes, How can this be changed? Strategies for promotion/ segment

### **V. Is there a sufficient market?**

- 5.1, Geographical area of the Market
- 5.2, Customer definition
  - 5.2.1, New Market (where, as such no vehicles are going to be replaced (eco-tourism?))
  - 5.2.2, Replacement of existing vehicles (Cars, Auto, Box Autos, Two wheelers)
- 5.3, Size of Market
  - 5.3.1, Total Gross Market
  - 5.3.2, Potential Market
  - 5.3.3, Achievable Target

### **VI. Are there agencies, which may have interest (+ve and -ve) which would come in the way of feasibility**

- 6.1, Motor Vehicle Department
- 6.2, Insurance Department
- 6.3, Automobile Clubs
- 6.4, Major Car manufacturers
- 6.5, Major Oil Companies
- 6.6, Electricity Suppliers
- 6.7, Motor safety Councils
- 6.8, Local bodies that will be affected: Police, Corporation
- 6.9, Pollution Control Organisations
- 6.10, NGOs
- 6.11 International Organisations
- 6.12 Standards Organisations (ISO, BIS)

### **VII Sufficient no. of vehicles can be produced and made available at the price/ quality specified**

- 7.1 Technical and financial feasibility
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