

METHODS FOR BUSINESS RESEARCHING

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Abstract: *Generally, people use research to systematically discover some aspects which allow improving their own knowledge. Consequently, business and management researchers are conducting researches in order to identify various characteristics and problems related to those domains. Although procedures vary from one field of inquiry to another, there are identifiable features that distinguish scientific inquiry from other methods of developing knowledge.*

Keywords: *business research, management research, scientific method*

1. SCIENTIFIC METHOD

Scientific method is a body of techniques for investigating phenomena and acquiring new knowledge, as well as for correcting and integrating previous knowledge. It is based on gathering observable, empirical, measurable evidence, subject to specific principles of reasoning (Wikipedia, 2007). Wolfs (2007) defines the scientific method as “*the process by which scientists, collectively and over time, endeavour to construct an accurate (that is, reliable, consistent and non-arbitrary) representation of the world*”.

Scientific researchers propose specific hypotheses as explanations of natural phenomena, and design experimental studies that test these predictions for accuracy. These steps are repeated in order to make increasingly dependable predictions of future results. Theories that encompass wider domains of inquiry serve to bind more specific hypotheses together in a coherent structure. This in turn aids in the formation of new hypotheses, as well as in placing groups of specific hypotheses into a broader context of understanding.

Among other facets shared by the various fields of inquiry is the conviction that the process must be objective to reduce a biased interpretation of the results. Another basic expectation is to document all data and methodology so it is available for careful scrutiny by other scientists, thereby allowing other researchers the opportunity to verify results by attempting to reproduce them. This also allows statistical measures of the reliability of these data to be established.

Wolfs (2007) states that the scientific method has four steps:

1. Observation and description of a phenomenon or group of phenomena.
2. Formulation of an hypothesis to explain the phenomena. In physics, the hypothesis often takes the form of a causal mechanism or a mathematical relation.
3. Use of the hypothesis to predict the existence of other phenomena, or to predict quantitatively the results of new observations.
4. Performance of experimental tests of the predictions by several independent experimenters and properly performed experiments.

If the experiments bear out the hypothesis it may come to be regarded as a theory or law of nature (more on the concepts of hypothesis, model, theory and law below). If the experiments do not bear out the hypothesis, it must be rejected or modified. What is key in the description of the scientific method just given is the predictive power (the ability to get more out of the theory than you put in) of the hypothesis or theory, as tested by experiment. It is often said in science that theories can never be proved, only disproved. There is always the possibility that a new observation or a new experiment will conflict with a long-standing theory (Wolfs, 2007).

As stated earlier, the scientific method attempts to minimize the influence of the scientist's bias on the outcome of an experiment. That is, when testing a hypothesis or a theory, the scientist may have a preference for one outcome or another, and it is important that this preference not bias the results or their interpretation. The most fundamental error is to mistake the hypothesis for an explanation of a phenomenon, without performing experimental tests. Sometimes “common sense” and “logic” tempt us into believing that no test is needed.

Another common mistake is to ignore or rule out data which do not support the hypothesis. Ideally, the experimenter is open to the possibility that the hypothesis is correct or incorrect. Sometimes, however, a scientist may have a strong belief that the hypothesis is true (or false), or feels internal or external pressure to get a specific result. In that case, there may be a psychological tendency to find “something wrong”, such as systematic effects, with data which do not support the scientist's expectations, while data which do agree with those expectations may not be checked as carefully. The lesson is that all data must be handled in the same way.

Another common mistake arises from the failure to estimate quantitatively systematic errors (and all errors).

2. THE AIM OF BUSINESS AND MANAGEMENT RESEARCH

Easterby-Smith and his collaborators (1991) assert that there are three elements which, together, turn the business and management field into a perfect target for research:

- the way in which managers (and researchers) synthesize the knowledge gained from other subjects;
- the fact that managers tend to be strong and busy persons. Consequently, it is less probable for them to allow access for research unless they find in this personal or commercial advantages;
- the requirement imposed on research to have a few practical consequences. It means that the research must hold potential, either for undertaking certain forms of practical action, or for defining some practical consequences of discoveries.

Therefore, the business and management research needs, not only to supply results that would lead to the enrichment of the knowledge in the field, but also to offer a way of solving management problems, as well as a method of approaching specific business aspects (Saunders *et al.*, 1997). However, this doesn't mean that the research conducted for the sake of satisfying one's own curiosity is out of discussion. Even this approach will, normally, have a series of practical implications.

A research project can considerably vary within these borders of advanced knowledge, of management problems solving and of methods to approach the aspects of the business. Still, in spite of this variety, all projects in business and management research can be placed in a whole (table 1), according to the specific objectives and their context. At the one end there is the type of research conducted with the purpose of understanding business processes and their outcomes. This is known as the *academic research*. At the other end, there is a certain type of research that has a direct and immediate relevance on the managers, approaching the aspects they see as being important, presenting it in a form they can understand and out of which they can undertake different actions. This type of research is often known as *applied research*.

The research is often represented as a multiphase process that must be closely followed with the aim of finalizing a research project (Saunders *et al.*, 1997). The exact number of phases that need to be followed vary, but, generally speaking, this process must encompass the following phases: *formulating and the clearing up the topics, revising the bibliography in the field, choosing a research strategy, collecting the data, analyzing and formulating the conclusions*.

Table 1. Academic research and applied research (Saunders *et al.*, 1997)

Academic research	Applied research
<p><i>Purpose:</i></p> <ul style="list-style-type: none"> • extends knowledge on business and management processes • supplies universal principles about processes and their connection to the outcomes • the results have significance and value for society, in general <p><i>Context:</i></p> <ul style="list-style-type: none"> • conducted by researchers coming from an academic environment • the researcher chooses the field and objectives • flexible duration 	<p><i>Purpose:</i></p> <ul style="list-style-type: none"> • improves the understanding of some particular aspects of business and management problems • provides solutions to the problems • new knowledge related to the problem in question • discoveries with practical relevance and value for the manager(s) of the organization(s) <p><i>Context:</i></p> <ul style="list-style-type: none"> • conducted by persons from different fields, including organizations and universities • the objectives are negotiated with the research initiator • given fix duration

3. DIFFERENT APPROACHES TO THE RESEARCH

The research can be approached by different methods. One of the approaches is *positivism*, which greatly owes its essence to the so called *scientific* research. This is what is called a *positivist* approach.

The positivist approach has several specific features (Gil & Johnson, 1991):

- It is *deductive* (the theory is tested based on observations);
- It tries to explain the causal relations between the variables;
- Normally, it uses quantitative data;
- It involves a series of controls to allow the testing of the hypotheses;
- Utilises a very well structured methodology to allow replication.

Another method of approaching research is the phenomenological approach, called as such since it relies on the way people experiment sociological phenomena from the world they live in. This approach can be considered as being in contrast to the positivist approach, which treats the social world in a way that it can be approached by the scientist, which makes a phenomenologist feel uncomfortable.

The *phenomenology* is characterised by the orientation towards the meaning given by the subjects researched to the social phenomenon; it is the researcher's effort to understand what is happening and why is it happening. These researches will be mostly oriented towards the context in which such events take place. Consequently, the study on a limited number of subjects can be more appropriate than that on a large number, as in the positivist approach. The researchers that subscribe to this approach will prefer to work with qualitative type data

and will use a variety of data collecting methods in order to record the different visions on the phenomenon (Easterby-Smith et al., 1991).

4. RESEARCH STRATEGIES

The research strategy is a general plan of the action method necessary for answering the established questions for that particular research (the importance of clearly defining the questions related to the research cannot be neglected). The research strategy will contain clear objectives, derived from the questions of the research, the specification of the data collecting sources, identification of the inevitable constraints (i.e. data access, time, location, money).

There must be a clear distinction between *strategy* and *tactics*. The former deals with the global approach, which is to be adopted, while the latter with the finest details regarding the data collecting and analyzing. The decisions on the adopted tactics will imply clarifying the data collecting method (i.e. questionnaires, interviews, target groups, published data).

Robson (1993) brings forward three traditional research strategies: The experiment, the poll, and the case study. Furthermore, Saunders (1997) mentions two other ways of conducting a research: *the transversal studies and the longitudinal studies*.

The experiment

The *experiment* is a classic research form mainly due to the natural sciences, although it very well fits many researches in social sciences, especially in those of psychology.

The survey

The *survey* method is the most popular and used strategy in the business and management research. The method allows collecting a large data quantity from a large population, in a very economic way. Based, most often, on questionnaires, the obtained data is standardized, allowing easy comparisons. Furthermore, the survey is perceived by most people as being authorized. This attitude comes from the fact that the survey results are easy to understand. Almost daily one newspaper or another publishes the results of a new survey that indicates, for example, the fact that a certain percentage of the population thinks or behaves in a certain way.

The use of a survey type approach allows a better control of the research process. A great deal of time will be invested into elaborating and conducting the questionnaire. The results analysis, even if made with the help of specialized computing software, is a great consumer of time, too. Still, the advantage stands in the fact that the method offers the researcher an appreciable independence.

Still, the data collected by making use of this method could not be as vast as those obtained as a result of the qualitative research methods. And all these due to the fact that, in the limits of an acceptable benevolence of the interviewed person, any questionnaire will have to contain a limited number of questions.

But, most probably, the greatest shortcoming of the survey method stands in a significant potential of mistaking in approaching the questionnaire and the survey.

The case study

Robson (1993) defines the case studies as being "the development of a detailed and intensive knowledge of a single case or a small number of related cases". This strategy is of particular interest for a case in which acquiring a profound knowledge of the context of the research and of the resulting processes is the main target. The 'case study' approach offers also the possibility to generate answers to questions of type 'Why?', 'What?' and 'How?' (Robson, 1993), questions that tend to be resolved by the enquiry type of research. The data collecting mode can take many shapes. These can include interviews, observations, documentary analysis and questionnaire (when intended the emphasis on the dangers generated by the division of the approaches, strategies and methods in specific fields).

In spite of the "non scientific" feeling they generate, the case studies represent a very important way of exploring the existing theory. Moreover, a well built case study allows launching provocations to the existing theory and may, also, constitute a source of new hypotheses. (Saunders *et al.*, 1997)

The transversal and longitudinal studies

In planning a research a question insistently requires an answer, and that is "Is it an intention that the research represent an «snapshot» taken at a given moment in time or should it be more like a «diary» and represent a sequence of events throughout a given period of time?" Obviously, the answer to this question depends, first of all, on the subject of the research. The "instantaneous" approach is what the authors (Saunders *et al.*, 1997) call a *transversal study*, while the "diary" approach represents a *longitudinal study*. There must be mentioned that these temporal approaches used in defining the research are independent of the type of strategy chosen (out of the three mentioned earlier).

The transversal studies often involve an enquiry type of research (Robson, 1993), (Easterby-Smith *et al.*, 1991). This type of studies can trace the description of the impact of a phenomenon (for example a survey regarding the IT abilities of the managers of a certain organization at a certain point in time) or they can compare various factors between different organizations (for example, the relationship between the expenses related to the training of

sales agents in order to pay the clients more attention, and the amount of the incomes generated by the sales). Even so, transversal studies can also utilize qualitative methods. Many case studies rely upon interviews conducted during a short period of time.

The main quality of the longitudinal research is its capacity to study change and development. Through this type of study, that observes people and events in time, the researcher has the possibility to use a control value for the variables studied, proving that these were not affected by the research process itself (Saunders *et al.*, 1997).

5. EXPLICATIVE, DESCRIPTIVE AND EXPLORATORY STUDIES

The inquires can be classified according to their purpose and also type of strategy they use (Robson, 1993). The most often used classification is a triptych one, encompassing the exploratory, the descriptive and explanatory ones. The same way the research project can rely on several strategies, the objectives of the mentioned project can be multiple.

As Robson (1993) notices, the purpose of the inquiry can change in time.

The exploratory studies

The exploratory studies represent important tools in trying to “find out what is happening, to ask questions and to evaluate the phenomena from a new perspective” (Robson, 1993). They are especially useful in clarifying the understating a person has on a certain issue.

There are three ways of conducting exploratory research (Saunders *et al.*, 1997):

- Investigation of the field specific publications;
- Discussions with the experts in the field;
- Initiation of interviews with the target groups.

The exploratory research can be easily compared to the activities specific for a traveller or an explorer (Saunders *et al.*, 1997). Its ultimate advantage stands in the fact that it is flexible and easy to adjust and modify. In spite of all these, the flexibility inherent to the exploratory research is not equivalent to a lack of direction in the inquiry. This flexibility means that the target field is initially large and it progressively decreases, the more the inquiry advances.

Descriptive studies

The object of the descriptive study is to “create an exact portrait of the persons, events and situations” (Robson, 1993). This research may constitute an extension, a forerunner or a part of an exploratory research. The descriptive research imposes the need of a clear image of the phenomenon as data collection target, before the actual start of data collecting.

Explicative studies

Those studies that establish a causal relationship between variables are often called explicative studies. In this case, the accent is on the study of a situation or problem in order to explain the relation between the variables.

In a general sense, the credibility of the research results is based on two aspects, that need to be closely followed is the outlining phase of the research: authenticity and validity.

Authenticity can be obtained by enunciating the following two questions (Easterby-Smith et al., 1991):

- Will the results have the same values for different measurements? (positivist approach).
- Will the observations made by different researchers in different situations be similar? (phenomenological approach).

The threats to the authenticity of the research results are (Robson, 1993): the subject's error, the subject's prejudice, the observer's error, the observer's prejudice.

Validity is rather connected to the possibility that the obtained results indeed represent what they appear to represent. In verifying the validity, when it comes to the causality authenticity of the relationship between two variables, may arise questions. The threats to validity are (Robson, 1993): the history of the subjects, their reactivity, and the instrumentation of the researched action, the mortality of the subjects, maturation, the ambiguity of the casual direction, the generalization capacity (the degree to which the results of the research can be generalized).

6. CONCLUSIONS

The scientific method is intricately associated with science, the process of human inquiry that pervades the modern era on many levels. While the method appears simple and logical in description, there is perhaps no more complex question than that of knowing how we come to know things.

This paper has emphasized that the scientific method distinguishes science from other forms of explanation because of its requirement of systematic experimentation.

7. REFERENCES

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