**AL-FARABY KAZAKH NATIONAL UNIVERSITY**

**Higher School of Economics and Business**

**Department of Finance and Accounting**

**CONSPECT of lectures**

Methods of scientific research

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**Lecture 1.** Methodological foundations of scientific research

Purpose: to provide the ability to conduct Research Methodology

Content

What is Research Methodology

Purpose and tasks of Research Methodology

Content and meaning of Research Methodology

RESEARCH METHODOLOGIES To return to our introduction: our original response to be ‘silent’ about research findings is only partly correct. Research is usually based on a systematic investigation carried out by somebody like Moss, or by teams of researchers. In most cases it tries to tell us something that we do not already know.

In this course we will develop the tools and the critical ability to question research findings. We need to have the confidence to say that a piece of research was well done or badly done or to be able to stand up and say that the effort was nonsense, that it was not worthy of our attention or energy. To do this we need to understand the methods that researchers or experts use to gather and analyse the information they present to us, and the limitations of these methods.

Researchers claim they are professionals and experts. They also claim what distinguishes them from other experts is their application of scientific methods in their effort to gather and process information. In much of this course we will deal with the two main types of research methods used: quantitative and qualitative methods.

QUANTITATIVE RESEARCH Quantitative research refers to a broad area of investigation that generates and uses data (or information) with a distinctive quantitative nature. Data (or information) that can be represented by numbers, and to which various statistical techniques can be applied, are quantitative. For example a quantitative research report may tell us that 11% of all South Africans are HIVpositive. Quantitative research usually involves collecting and analysing the responses of a large number of respondents (usually people or households). The results of quantitative research are frequently generalised beyond the set of respondents interviewed.

In principle, quantitative data are compatible with various research designs and with various data-gathering methods. In practice, quantitative research has been associated with rigorous and clearly specified research designs, using the survey method of data gathering,

Let us return to the case of the HIV/AIDS statistics. If not everyone in South Africa has revealed their HIV status, where does the figure of 11% come from? How did the researchers get to that figure? Perhaps the answer is from blood samples and tests. But surely they have not taken blood from all of us? We will deal with the techniques involved in this type of research in the later sections of this manual.

The most common data collection method used in quantitative research is a survey. For example, in a study conducted by the Community Agency for Social Enquiry (C A S E) in 2000, the living conditions, opinions, attitudes and wishes of young people in South Africa were examined. The researchers interviewed a systematic selection of 2500 young men and women throughout the

country and then extended the results to all youth in South Africa. The most common instrument used in a survey to collect data is a structured questionnaire – a series of questions that usually have pre-determined answers, and the respondents choose between them.

QUALITATIVE RESEARCH Qualitative research usually involves the collection and analysis of in-depth information on a smaller group of respondents. For example, we may know that people in a certain community where HIV/AIDS is prevalent do not talk about the disease. We could find, by having detailed conversations with a number of people in that community, that the reason for their reluctance to speak about the topic is their fear of being stigmatised. Usually the results of such qualitative research cannot be generalised beyond the respondents who contributed to the study. For example, we would not be able to say which proportion of the people in the community, or broadly in the province or country, do not speak about HIV/AIDS for this reason (fear of stigma). However, we may be able to identify one reason for silence on the topic and explore it further.

If done in a sensitive way qualitative research may allow us to distinguish between what people ‘say’ and what they ‘do’. Sometimes we say one thing but our actions are exactly the opposite. A sensitive researcher who is accepted in a community might observe such discrepancies. For example, despite what people say about crime, that they are all against it, some people in South Africa help and harbour criminals and criminal activity. Research suggests that many people in our country know criminals and has good relationship with them. This tension between what we believe and say on the one hand and what we do on the other, is an interesting and complex research topic in its own right.

Frequently researchers use a combination of qualitative and quantitative methods, in order to provide a more complex understanding of a social problem.

AN EXAMPLE OF A RESEARCH PROJECT Let us suppose that Prof Moss is approached by the CEO of a Music company that produces CDs, after the CEO was impressed with his appearance on TV. The CEO wants to find out whether there is a strong market for masakanda music in the country. His wife loves masakanda music and she says that he is mad not to sign up masakandi musicians in his company.

Prof Moss thinks that this is a wonderful research opportunity. To produce a good report he feels that he has to combine quantitative and qualitative methods of research.

His research report could be something like this: masakanda music is popular in KwaZulu-Natal – 55% of residents of Zulu descent in this province rank it as their first choice above gospel, ballads, jazz and R&B. But this figure declines to a 10% preference in all the other provinces. A

further interesting finding is that despite the above, there is a growing international market for masakanda among Japanese youth.

The qualitative aspect of his research will also add to his understanding of the situation: the reasons for the enjoyment of ..has to do with the content of the lyrics and the guitar sound, it speaks to their lives. For those who do not appreciate it, it feels too ethnic, too low-class and too influenced by particular conditions. For the Japanese youth, words are irrelevant; they simply love the sound and the mournful voice of the singers.

So Prof Moss, in combining quantitative and qualitative methods of investigation, has provided the CEO of the CD-company with a piece of research that is bound to make him think. Do I risk money on the basis of this information, or not?

To answer this question the CEO would have to consider a number of issues: how was the research designed; what were the precise questions that were asked; who was included in the study and according to what criteria; when and where exactly was the research conducted; how representative are the findings; how competent were the data collectors (fieldworkers) and how tightly were they supervised; how reliable and valid are the results. Answering these questions requires knowledge of specific details of the research project and an understanding of the strengths and weaknesses of different research strategies. These issues will be covered in subsequent sections of the manual.

Nevertheless, the objective of this first introductory lecture was to make a specific point: that good research, research that is reliable and valid, informs sensible action. It is therefore important to understand how research is constructed, what are its methods, how it organises findings, in order to be enabled to act sensibly.

Questions

Determine research methods

Analyze basic of research methods

Compare main features of research methods

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