

QUESTIONNAIRE CHARACTERISTICS FOR EVALUATION OF MANAGEMENT IN THE SMALL AND MEDIUM SIZE ENTERPRISES

Mirela NASTASIEA¹, Costel MIRONEASA²

¹*Faculty of Mechanical Engineering, Mechatronics and Management,
“Ștefan cel Mare” University of Suceava - mirela_nastasiea@yahoo.com*

²*Faculty of Mechanical Engineering, Mechatronics and Management,
“Ștefan cel Mare” University of Suceava - costel@fim.usv.ro*

Abstract: *Questionnaires are used in management, economics, business, psychology, public opinion research and many other areas to collect data from human respondents. A well-designed questionnaire can gather information about the overall performance of a product or system, as well as information on specific components. In the past, the term questionnaire almost invariably referred to a paper form, but now many surveys are administered by computer assisted personal interview devices, telephone or web-based electronic forms. Surveys are a traditional method of gathering information at a minimum cost to the researcher.*

Keywords: *questionnaire, management, small and medium size enterprises, survey, questions, responses*

1. Introduction

A questionnaire is defined by Kirakowski [Kirakowski, 2000] as a “*method for the elicitation, the recording and the collecting of information*”:

- method implies that a questionnaire is a tool rather than an end in itself;
- elicitation is the bringing out of information from respondents through questioning;
- the responses at questionnaire are recorded in various ways – video, voice, written text;
- collecting implies that by administering questionnaires to many respondents, evaluators of them usually expect a compilation of the questionnaires (for achieve higher validity in the outcome of the questionnaires, higher numbers of collections are recommended).

When properly constructed and responsibly administered, questionnaires become a vital instrument of collecting a wide

range of information from a large number of individuals, often referred to as respondents Figure 1. Designing and developing questionnaires involves two main components:

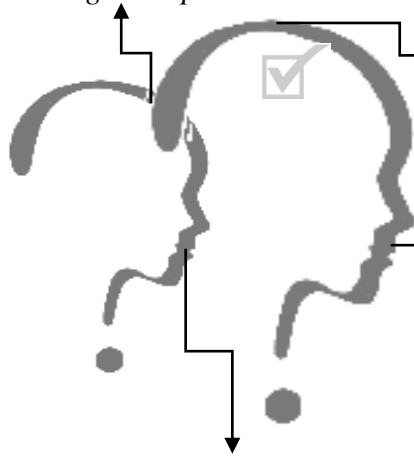
- one – deciding what the questionnaire needs to measure and
- two – designing and testing questionnaire items to be good measures of the construct or trait under study [Fowler, 2002].

The questions should convey the same meaning and function equally well across respondents.

Respondents should understand all of the information presented in questions, which is only possible if the question is relevant, clear in meaning and presents a manageable amount of material.

Respondents should have the ability and motivation to answer. The questions should allow respondents to accurately express their responses in a manner that reflects their actual experience, attitudes, etc.

Schuman and Kalton [Schuman & Kalton, 1985] said: “asking questions is a remarkably efficient way to obtain information from and about people. Whether the information desired is factual or consist of expressions of attitude, beliefs, judgements or whatever, one can obtain an enormous amount of it a relatively brief time provided only that the person answering is able and willing to respond.”



Payne [Payne, 1951] stated that asking the right questions that provide valid and reliable information for making decisions as well as testing a theory is probably as much an art as the other aspects of research.

Kinnear and Taylor [Kinnear & Taylor, 1996] : “Questionnaire design is more an art form than a scientific undertaking. No steps, principles, or guidelines can guarantee an effective and efficient questionnaire.”

Peterson [Peterson, 2000] claimed that the data gathered from questionnaires might be useless if a researcher does not ask the right question in the right way even though the other aspects of the research is well designed; even worse, the wrong data might lead the researcher in a wrong direction.

Figure 1: Opinions about questionnaire

A goal is well-defined when the following three criteria are met:

- a) a goal can be stated as an outcome;
- b) the outcome can be specified as actions;
- c) the outcome can be numerically measured.

Once the objective of the study is defined and specified clearly, the research effort is concentrated on collecting data. That involves lengthy and costly processes such as:

- a) designing and pretesting the questionnaires;
- b) identifying the respondents;
- c) training of field interviewing staffs;
- d) checking data to ensure accuracy of data gathered and collected;
- e) coding, punching and tabulating the data collected.

2. Questionnaire characteristics

A questionnaire is simply a tool for collecting and recording information about a particular issue of interest; Babbie [Babbie, 1990] said that a questionnaire is a document containing questions and other types of items designed to solicit information appropriate to

analysis. It is mainly made up of a list of questions, but should also include clear instructions and space for answers or administrative details.

Questionnaires are familiar to most people and they translate the research objective into specific questions and it needs to be clear from the outset how the findings will be used. The answers to those questions provide the data for testing the research hypothesis; questions must also interest the respondents enough that they will provide the information. One step in designing questionnaire is to create a conceptual model: this includes specifying the research problem, the purpose of the research, the research design, the variables and hypothesis and operational definitions and valid and reliable measures of the variables, as well as the intended population, and the plans for data analysis. To produce the questionnaire writing the introduction, the statement of informed consent, and the questions and responses, as well as designing the overall format of the questionnaire. Brace [Brace, 2008] said that only relevant questions to the subject should be asked of participants. The

researcher's duty is to construct understandable and objective questions for respondents because using difficult language, ambiguous or influential quantifiers' results in getting wrong or no responses from the participant. Ambiguous questions contain unfamiliar words and/or words that have multiple meanings. Factors in interpretation of questions that affect respondent's ability to understand a questionnaire was categorized by Conrad and Blair into five types: lexical (terminology) problems, inclusion/exclusion problems, temporal problems, logical

problems and computational problems [Conrad & Blair, 1996]. Potential errors can occur if the respondent interprets the question differently from the way the researcher intended. Error can also occur when different respondents interpret the question differently from each other. Pre-test (to field-test it by performing a pilot study in a small representative sample of respondents from the target group) the questionnaire is a mod to revise, and to conduct a pilot test of how the questionnaire will be used.

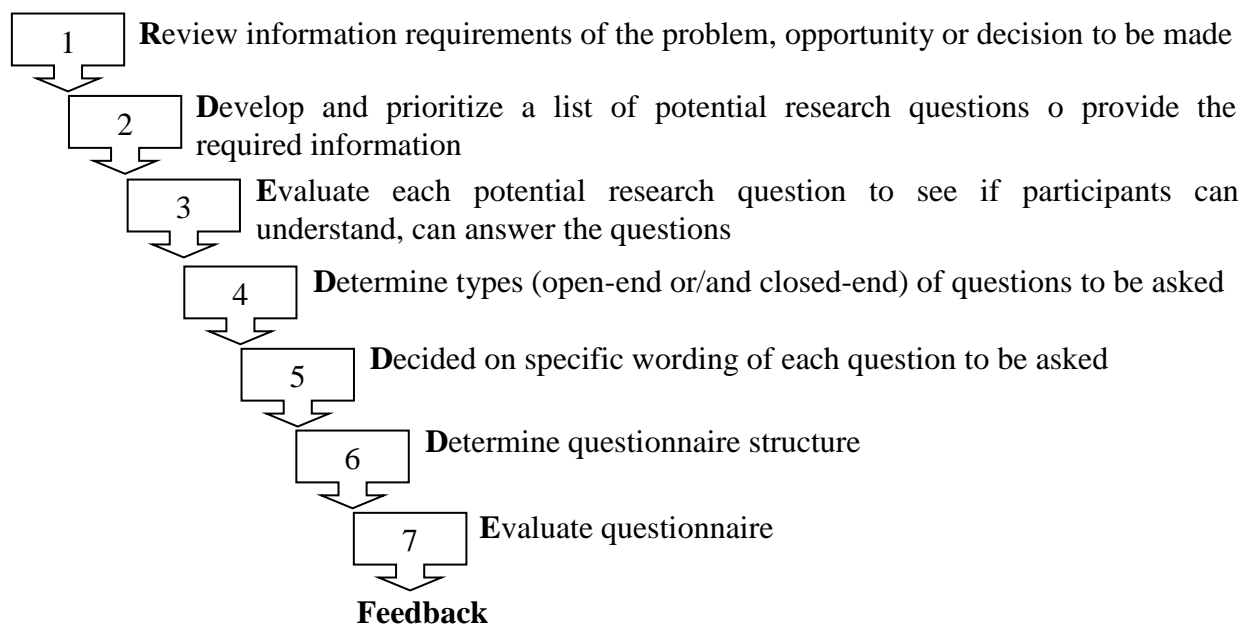


Figure 2: Steps in questionnaire design

Peterson [Peterson, 2006] suggested a seven step-framework for constructing questionnaire, Figure 2 and explained “*unless a researcher understands the information requirements – what information is needed and how that information will be used – no attempt should be made to construct a questionnaire. The effort would be a waste of time for the researcher and the results would be of little value.*” There are several ways to classify questionnaire such as closed – ended or open – ended [Brace, 2008], [Chelcea, 2001], Figure 3.

As another way of classifying types of questions, Czaja and Blair [Czaja & Blair, 1996] summarized three types of questionnaires: factual questionnaires (questionnaires usually ask about public or observable information), opinion questionnaires (questionnaires ask what respondents think about something which can interpret as opinion) and attitude questionnaires (try to gather respondents' internal response to events, situations or usage of products).

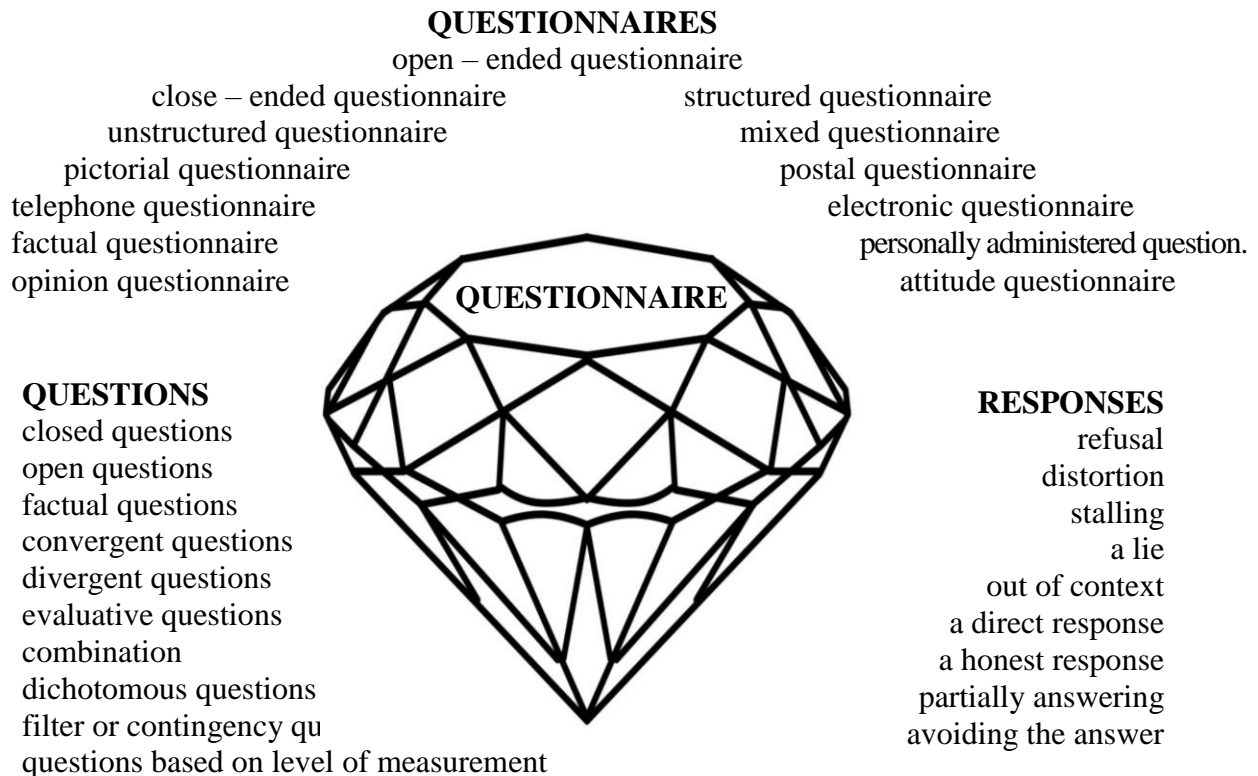


Figure 3. *Questionnaire as a diamond*
 (questions like pavilion, responses like crown and questionnaire like diamond)

A questionnaire is considered to have content validity if the included items are representative of the content area in which the investigator is interested, there are two key facets to content validity: content relevance and content coverage [Nunnaly, 1978], [Streiner & Norman, 2008]:

- content relevance refers to the extent to which each item is related to the content area under investigation (items that fail to show adequate content relevance may introduce measurement error and discriminate among respondents on some dimension irrelevant to what is being assessed);
- content coverage on the other hand, reflects the extent to which separate domains within the content area of interest are represented by one or more items (if not, respondents may differ in some important aspects, but this difference might not be reflected in the final score obtained from the questionnaire or its individual subscales).

Over the years, the practice of quality management has been identified and awareness has been created as one of organization’s most important key ingredient for success and global competitiveness. A small and medium enterprise that implements quality management practices may have a competitive advantage over its competitor. Through questionnaires can investigate the impact on the implementation of quality management practices on the performance and growth of SMEs, can determine the relationship between quality management and performance mostly in the developed world and can study evaluating management in SMEs, Figure 4.

Quality has been defined by Karapetrovic and Willborn [Karapetrovic & Willborn, 1997] as “*the ability of a product to satisfy stated or implied requirements*”. Total Quality Management is seen as a tool to improve organizational performance in both large and small and medium organizations and in any part of the world. Wessel and Burcher [Wessel

& Burcher, 2004] said that “*quality management in general deals with permanently redirecting a company’s macro*

and micro operations towards the needs of internal and external customers”. The dependent variable is performance.

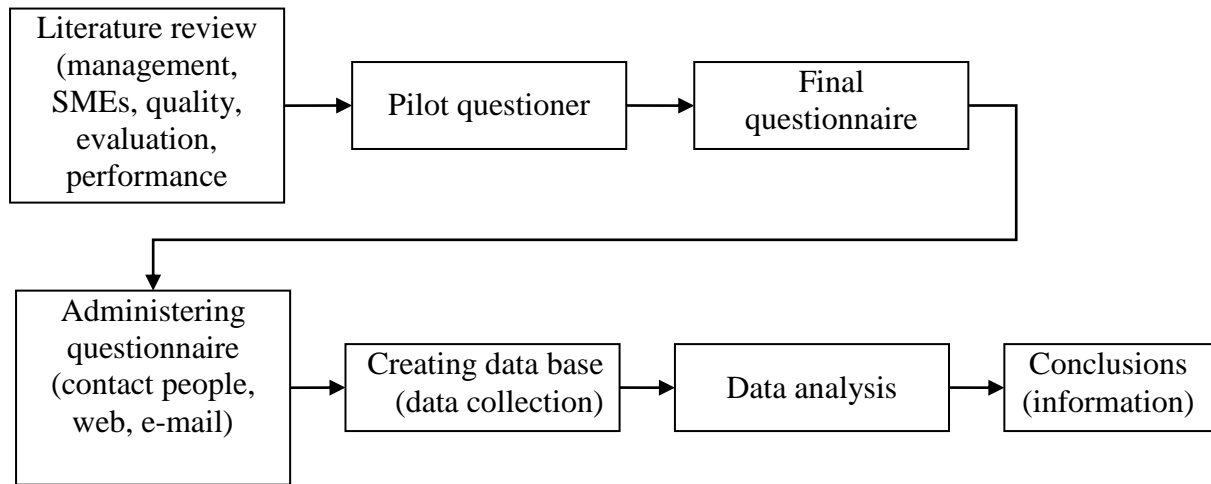


Figure 4: Steps in questionnaire administration

For a product, the technological sophistication is one of the essential aspects of its performance. A questionnaire can be used to obtain businesses’ subjective view of the quality management and the quality of the products. The questionnaire can be divided into two parts: the first focuses on the common characteristics of the SME, by general questions related to monitoring quality and its relation to the SME’s competitiveness and the second part of questionnaire ascertains qualitative characteristics to analyze quality, including quality of business management and evaluation of performance management. Feedback from the pilot questionnaire can be used to clarify whether the questions were easy to understand, whether there were any other questions that needed to be included.

Conclusions of the questionnaires may have information about key performance indicators: continuous improvement and innovation, information and performance measurement, process management, strategic planning, process control, product and service design, flexibility, quality systems, people training, top management commitment, teamwork, employee involvement, supplier management, communication, rewards and recognition, human resource management,

employee empowerment, quality culture, employee satisfaction, social responsibility, how new products could address latent needs.

How SMEs approach implementing quality management varies, depending on the industry, the level of maturity of their product, their strategy and objectives, organizational culture and a lot of other factors.

Criteria of questionnaire in management quality is presented in Figure 5.

Each type of questionnaire has its own strengths and weaknesses. First, it is important to ask questions that are clear and specific, without unwarranted assumptions or imply a desired answer, and that each respondent will be able to answer. Questions that use simple and concrete language are more easily understood by respondents:

- if a question is open-ended, it should be evident to respondents that they can answer in their own words;
- if questions are closed – ended should include all reasonable responses [Bulmer, 2004]

When similar questions are administered simultaneously to a large number of people the acquired data are more identical, correct and standard.

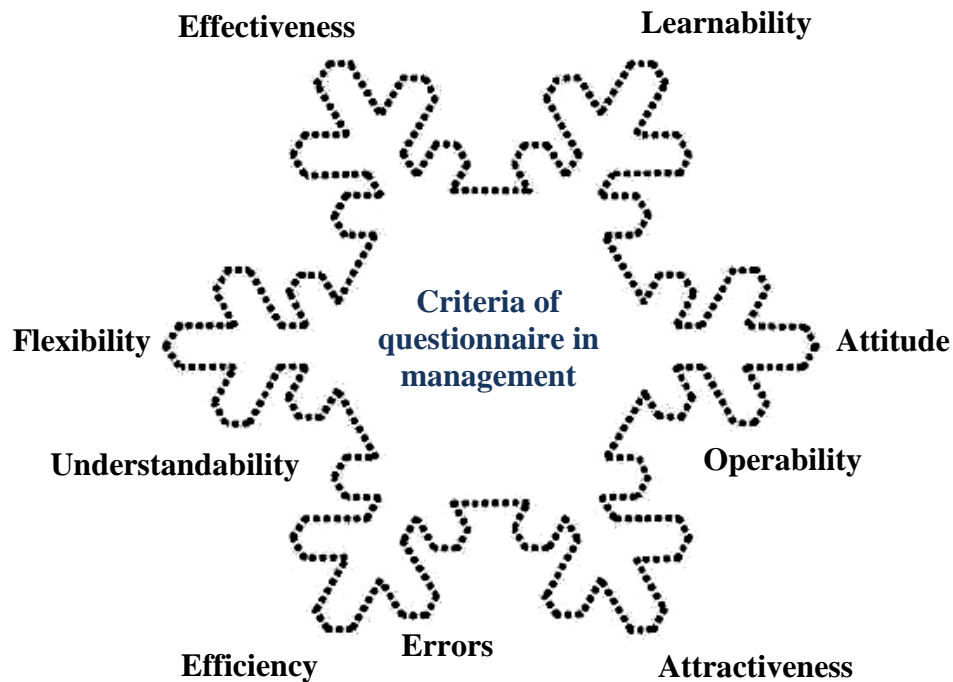


Figure 5: Crystal questionnaire

Blaxter et al. [Blaxter et al, 2006] divide questionnaires into “seven basic question types: quantity or information, category, list or multiple choice, scale, ranking, complex grid or table, and open-ended.”

Particular attention should be paid to how questions are ordered in the questionnaire [Yin, 2009], [Sarantakos, 2007]. The order in which questions are asked can influence how people respond:

- if closed-ended questions that relate to the topic are placed before open-ended questions, respondents are much more likely to mention concepts or considerations raised in those earlier questions when responding to the open-ended questions;
- order effects for closed-ended opinion questions are contrast effects (the order results in greater differences in responses) and assimilation effects (responses are more similar as a result of their order). Assimilation effects occur when responses to two questions are more consistent or closer together because of their placement in the questionnaire.

One disadvantage of questionnaires is the possibility of low response rates (response

rates vary widely from one questionnaire to another 10% - 90%. Respondents may not be motivated enough to complete a whole questionnaire and the web questionnaire is therefore the only tool that the researcher has available and its design is very important for obtaining survey data of the desired quality.) [Silverman, 2010],[Sushil & Stohr, 2014].

Over the past decades, performance management is defined as the process where steering of the organization takes place through the systematic definition of mission, strategy and objectives of the organization, making these measurable through critical success factors and key performance indicators, in order to be able to take corrective actions to keep the organization on track [Flick, 2006]. Evaluating through questionnaires and comparing performance within and between SMEs, the examinations of multiple quality inputs and multiple performance outputs can be quite difficult when there are multiple, inter-related dimensions to performance.

The results of questionnaire may include data about best quality management practices to improved performance, specifically quality and innovation performance.

3. Conclusions

Research efforts can be classified into three broad areas:

1 - methods to increase response rate, thereby reducing nonresponse bias;

2 - methods to increase response quality which would, in turn, reduce response bias;

3 - methods of assessing the degree and direction of bias with attempts to correct existing bias yielding closer estimates of the population values.

Questionnaire are doubtless source of obtaining data in any research and the researchers should ensure that is “*valid, reliable and unambiguous*” [Flick, 2006]. The researcher must be careful at the quality of the questions of the questionnaire.

Since the beginning of 21st century, the boom of information technology leads a lot of social affairs to paperless. Nowadays, because lots of paper would be used for printing and a lot of time is spent for distributing, paperless questionnaire through the Internet is gradually emphasized and adopted by researchers.

Considering that the design of questions and questionnaires is an art as well as a science, researchers who compose questionnaires should review questions from earlier surveys before writing their own. It is important for researchers to reflect on their limitations and the consequent limitations of their own research. Questionnaires used in survey-based research are often arranged in sections that contains item that are closely interrelated, serving one or more themes. The resulting dataset may have a large number of variables, which poses special analytic challenges for dealing with missing values.

Selinger and Shohamy [Selinger & Shohamy, 1989] are of the opinion that close-ended questionnaires are more efficient because of their ease of analysis, and in 2000 Gillham to admits the difficulty of analyzing open-ended questionnaires but argues that “*open questions can lead to a greater level of discovery.*” [Gillham, 2000]. Brown [Brown, 2001] divides the research design into four parts: “*purely statistical, statistical with some*

qualitative, qualitative with some statistics and purely qualitative”.

Today, books provide limited information on questionnaires as a data collection method, there are only a few texts that deal specifically with quantitative methods: [Oakshott, 2009], [Swift & Piff, 2010], [Easterby-Smith et al. 2012], [Saunders et al. 2012].

Through questionnaires, researchers can be able to assess correlations between SME performance and the extent to which total quality management was implemented in the organization, relationships between total quality management and general organizational performance including quality, to identify best quality management practice via simultaneous consideration of multiple inputs and multiple outputs.

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