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MANAGERIAL USE OF MARKET RESEARCH INFORMATION, AND ITS INFLUENCING FACTORS

PH.D. DISSERTATION

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I. INTRODUCTION[1]

Information means power. The statement also holds true for companies, as information can be converted into economical advantages.

However, the question emerges whether the *possession* of information alone can be the source of power.

According to one of the most frequently referenced researchers in the field of marketing, Gerald Zaltman the professor of Harvard University: „in the future, companies' competitiveness will not depend on how much information they possess, but on *how they can utilize it*" (Zaltman and Deshpandé 2000).

Market research may be an important tool for businesses in exploring market conditions. As data of PMSZ[2] show, companies in Hungary spent HUF 9 billion on market research in the year 2000 (Népszabadság, February, 5. 2001). Recent years have witnessed the dynamic growth of the Hungarian market research market, which trend is expected to continue.

Concerning the words of professor Gerald Zaltman, one may ask: *how do Hungarian companies use the results of market research, and what kind of factors have an effect on how far marketing managers rely on research results.* This is the key question of my dissertation.

Marketing researchers started to focus on studying the managerial use of market knowledge about two decades ago. MSI[3] played a major role in the process. This prestigious institution asked American marketing academics to initiate studies which support business executives in exploiting the market research results they purchased more efficiently and assist research professionals in understanding managers' needs, often not expressed explicitly.

The *consumer behavior* of managers relating to the use of market knowledge is still a popular field of research. I used the term consumer behavior deliberately: Wierenga and Bruggen (2000) finds it surprising that marketing, the discipline

[1] The empirical survey of this Ph.D. dissertation was completed within the framework of the OTKA (Hungarian Scientific Research Foundation) research No. T037857 titled „Information systems supporting marketing management activities and the use of market knowledge in Hungary".

[2] PMSZ: Hungarian Association of Market Researchers (Piackutatók Magyarországi Szövetsége)

[3] MSI: Marketing Science Institute. One of the aims of this American institute is to establish the link between marketing theory and practice. Every year, they publish the marketing problems and issues of interest to company executives and marketing professionals the researches of which the organization wishes to finance and the analysis of which they recommend to academics. The list of the most current topics is also available through the Internet (www.msi.org).

having acquired extensive knowledge about consumer behavior, knows hardly anything about managers' consumer behavior relating to the use of information.

Yet the topic having received *less attention*[4] in spite of its significance is not the only reason why it is interesting.

Gaining profound knowledge about the topic is also important because managerial use of information is *connected to a number of research trends within the field of marketing.* Important element of *market orientation* are the acquisition and dissemination of market information and organisation-wide responsiveness. Knowledge about the managerial use of market information also plays a role in *marketing innovation* research, and furthermore, the key factors of the intra-company use of information (e.g. inter-personal trust) also appear in *relationship marketing* studies.

Research on the managerial use of market research results verified several *thought provoking hypotheses*. Most probably all business schools provide education on market research in some form or other, the coursebooks on methodology becoming more and more modern. However, studies in the topic show that the professional quality of market research - instead of professional quality, we should rather say *perceived quality,* as due to the asymmetric information between researcher and manager, the latter is often unable to judge the results of the research study - is *only one of the many aspects* influencing the utilization of studies.

According to Deshpandé (1982/b), *other attributes of the research study* like its political acceptability within the firm or its counter-intuitiveness effect are just as important as professional quality when considering the use of the results. Other recognized researchers, Moorman, Zaltman *et al.* (1992) claim that the *nature of the relationship between researcher and manager* also influences the utilization of research results to a great extent. Moorman, Zaltman *et al.* (1992) points out the substantial effect of trust on the capitalization of results. Thought-awakening, too, is

[4] We should be a little more specific about „less attention": the past two decades have witnessed the publication of at least one research into this topic per year in leading marketing periodicals. However, the „institutionalization" (lectures in business schools, publishing books (Deshpandé, 2001;Wierenga and Bruggen, 2000) of the research topic has begun only recently. Research into the use of market knowledge had started in the United States, European professionals joint in somewhat later. Hungary may be considered a „pioneer" in research into the topic: studies related to the topic – on the use of the Internet by business executives – are being conducted at University of Pécs under the supervision of Dr. Gábor Rekettye and with the support of Prof. Berend Wierenga (Erasmus University, NL); further research, supported by OTKA (Hungarian Scientific Research Fund), is in progress at the Budapest University of Economic Sciences and Public Administration under the supervision and professional guidance of Mrs. Magdolna Hoffman and József Berács.

the assertion that although executives consider the compliance of research results to latent expectations (e.g. political acceptability) within the company significant, the professional impartiality of the researcher is still extraordinarily important to them. Utilization of knowledge may also be affected by the structure (programmability) of the *problem* (Perkins and Rao 1990), by the characteristics of the individual - e.g. commitment for the company - (Maltz and Kohli 1996) or by company-specific traits - e.g. formality and centrality, company culture - (Moorman 1995).

Many of the management handbooks present the use of information - as a resource - relating to *decision making.* Research professionals of this field (e.g. Homburg and Karlhaus 1998; Diamantopulos and Souchon 1995) put forward that market research *is not only used for decision making* by managers. A research is often ordered to *justify a certain decision* to the parent company or the owners - many times only after making the decision - or simply to *understand in detail* or to contextualize some phenomenon.

My research into Hungarian managers' use of market research information serves *several aims*. One of them is to adapt the topic to the country's circumstances. While in recent years, several market research books of high standard were published, we have very little knowledge about how companies in Hungary utilize research results. Besides this „local novelty", my study is also unique in the sense that international literature on this topic *has not yet been systematized, evaluated* as much in detail as in my thesis.

It is my firm belief that practicing market researchers and executives utilizing research reports *do exactly know* what the way how a certain research is utilized depends on, how the perceived quality of the research looks like or how the trust in the researcher affects the acceptance of the results. However, entering the spirit of MSI's initiation - systemizing our knowledge about the managerial use of market knowledge in order to more efficiently use this kind of information and to improve the researcher-user relationship - this study *can definitely provide value added to the stakeholders of the Hungarian market research market.*

II. LITERATURE REVIEW

Our literature review consists of *two chapters*.

The *first chapter* will situate the research topic within the field of *marketing* and in the context of other management disciplines. Information processing *is not necessarily related to enterprises,* what is more, research into the information processing of consumers (especially consumer behavior) received more emphasis than that into the managerial use of information. The chapter provides an overview of differently focused marketing studies into information processing and assists in contextualizing the topic.

The *second chapter* outlines those marketing studies which relate to our topic. The first chapter attempts to create a kind of „co-ordinate system", while the second one has a much more *specific* aim. Namely to demonstrate the methodologies applied and the factors introduced in former research into the significance of the use of information and how they defined and measured different types and dimensions of information.

II.1. Positioning our research in the co-ordinate system of marketing, related disciplines

II.1.1. Introduction to the chapter

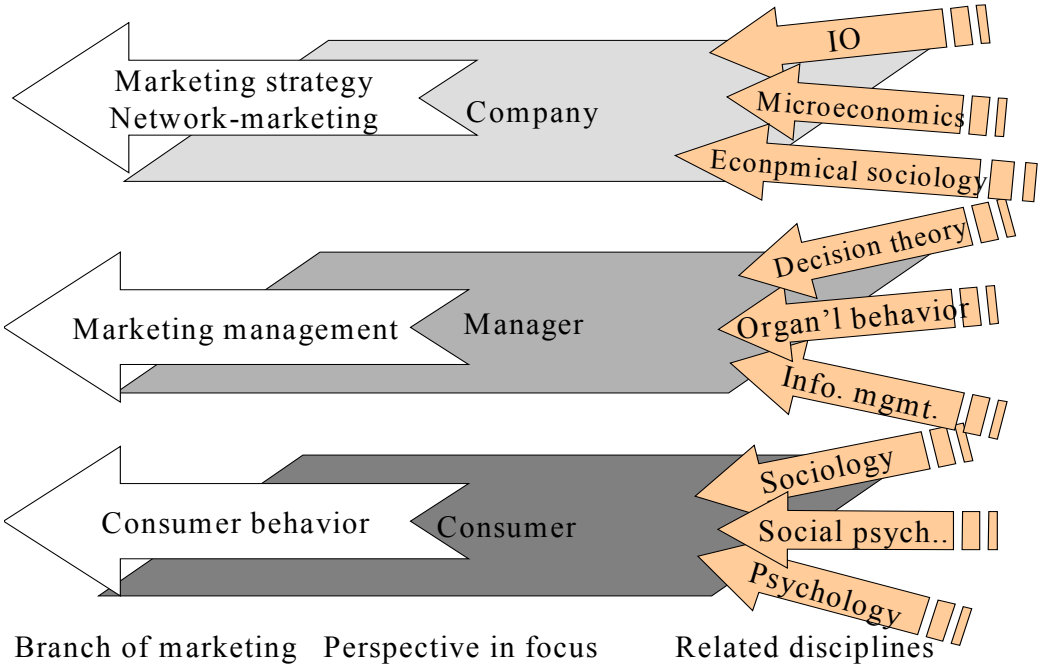
Several aspects of the matter of marketing information processing are in the focus of research interest.

Based on my own approach, the present chapter classifies studies according to who the *user of information* is. This is the grouping which we think is the most suitable for positioning our research topic within the field of marketing, as projects examining information processing on different levels of aggregation necessarily apply a *different set of tools*, rely on different *disciplines* and contribute to different segments of marketing.

Researches in marketing concerned with the processing of information may differ in who or what will use the information. Information processing has been investigated by marketing researchers:

1. On a consumer level
2. On a managerial level
3. Amongst organizations.

Figure 1 : Research perspectives of information processing in marketing - own typology



II.1.2. Consumer information processing

Consumer information processing is primarily dealt with by researchers of *consumer behavior*, who „…as opposed to the classical microeconomic approach (according to which perfectly informed consumers formulate their preferences clearly, produce their own utility function and consistently choose the goods or combination of goods with a higher utility)… they *do not presume the general rationality* of market actors, but rather treat consumers as individuals in their studies" (Bauer and Berács 1998:77).

In connection with environmental effects influencing consumers and consumer information processing one may mention well-known theories like the *Elaboration Likelihood Model (ELM)* or the model of Petty, Cacioppo *et al.* (1983) describing the *central and peripheral routes to attitude change* and the *learning theories* relating to information storage (cognitive learning, classical conditioning, instrumental conditioning).

In the research of consumer information processing, marketing mainly relies on the disciplines of *sociology, psychology and social psychology*.

Apart from marketing, some important theories concerned with the information processing of the individual - not necessarily as a consumer - have to be

noticed, like that of *bounded rationality* (Simon 1957) or the „framing" approach, also connected to game theory (Kahnemann and Tversky 1974).

II.1.3. Managerial information processing

Wierenga and Bruggen (2000) finds it surprising that marketing, the discipline possessing extensive knowledge about consumer information processing *knows hardly anything about the way managers utilize information*.

Several theoretical models having been formulated in connection with different topics (e.g. the Robinson-Faris-Wind model describing the purchasing process - (Robinson, Faris *et al.* 1967) quoted in Bauer and Berács (1998):130, managerial information processing is *not a new topic in marketing research*.

Yet these early models are of a *normative* nature, not telling anything about how managers actually use information, how they make decisions in „reality", but rather describing how they *should* make decisions.

The question of how business managers „information-consumption" looks like regained foreign marketing researchers' special attention two decades ago.

In international research, *two main trends, two schools can be identified*. In comparing these two schools our own approach will prevail.

Table 1 : Marketing research trends of managerial information processing - own typology

Characteristics	Managerial use of market knowledge	Managerial decision making and IT
Researchers often referenced in leading international marketing periodicals	Deshpandé and Zaltman: Deshpandé and Zaltman 1982/a, Deshpandé 1982/b, Deshpandé and Zaltman 1983, Deshpandé and Zaltman 1984, Deshpandé and Zaltman 1987, Deshpandé and Webster 1989, Deshpandé 2001 Moorman: Moorman, Zaltman *et al.* 1992, Moorman, Deshpandé *et al.* 1993, Moorman 1995, Moorman and Rust 1999, Moorman, Deshpandé *et al.* 2001 Maltz: Maltz and Kohli 1996, Maltz 2000/a, Maltz and Kohli 2000/b, Maltz and Kohli 2001, Maltz, Souder *et al.* 2001	Rangaswamy: Rangaswamy, Burke *et al.* 1986, Rangaswamy, Eliahberg *et al.* 1989, Rangaswamy, Harlam *et al.* 1991, Rangaswamy 1993 Lilien: Lilien 1979, Lilien and Kotler 1983, Lilien, Kotler *et al.* 1992, Lilien and Rangaswamy 1998, Lilien and Rangaswamy 1998. Wierenga: Wierenga and Ophuis 1997, Wierenga and Van Bruggen 1997, Wierenga and Bruggen 1998, Wierenga, Bruggen *et al.* 1999, Wierenga and Bruggen 2000
Range of information considered	2 further trends: Market research, Marketing intelligence	Information from the utilization of IT applications supporting marketing management activities
Information processing process considered	Utilization of information (not exclusively decision making)	Decision making
Geographical orientation	Primarily America (Only sparsely in Europe / e.g. in Germany, Universität Mannheim: (Homburg & Karlhaus 1998)/, lately at the Marketing Department of BUESPA	Mainly America, in Europe at the Netherlands Erasmus Universiteit Rotterdam: Center for Information Technology in Marketing. In Hungary, research into the topic is done at the Marketing Department of the University of Pécs under the supervision of Prof. Rekettye, lately at the Marketing Department of BUESPA
Typical methodology	Quantitative empirical studies	Quantitative empirical studies
Most important related disciplines	Organizational behavior, communication theory	Information management, decision theory, cognitive psychology

The *first trend (Managerial use of market knowledge)* focuses on how managers use marketing / market information, while the *second trend (Managerial decision making - IT systems)* rather concentrates on how IT systems (primarily the systems supporting marketing management activities) contribute to the decision making process of marketing managers.

Albeit these two branches are interrelated (both examine the relationship of marketing information and managers, and their research methods are largely identical, too), they still differ significantly - in the characteristics shown in Table 1 (page 7).

Both of these two dominant research trends of the managerial use of information deal with questions principally belonging to *marketing management* (e.g. how do managers make decisions, in what way do they use market knowledge, how do different departments co-operate with the marketing department, etc.).

The majority of marketing research projects into managerial information processing is based on *quantitative empirical surveys*, with hardly any *experiments* (Perkins and Rao 1990; Dennis 1996) or *qualitative research* (Diamantopulos and Souchon 1995).

The disciplines involved in the study of consumer information processing also differs for the examination of managerial information processing. While „*Managerial use of market knowledge"* relies primarily and apart from marketing on organizational theories and organizational behavior, the *„Managerial decision making - IT systems"* trend leans on decision theory and information management.

II.1.4. Organizational (inter-organizational) information processing

Research into inter-organizational information processing is in connection with *marketing strategy*, as it is concerned with the informational consequences (related to its allies, competitors, clients, etc.) of companies' competitive behavior.

Some of the researchers of inter-company information processing examine questions like what factors influence the flow of information between partner companies (Sarvary 1999; Villas-Boas 1994) or what kind of strategy a company trading with market information should follow under different market environments (Sarvary and Parker 1997).

This companion of researchers heavily relies on *microeconomics* and *industrial organization*. Considering this kind of studies, the mainstream methodology is *mathematical modeling*.

In recent years' Europe, *network-marketing* has become more and more dominant as a research trend. (For example, a significant portion of marketing researchers are engaged in studies into network marketing in Scandinavian countries and in Finland). A further school within this trend is one that concentrates on corporations' use of information acquired through their market networks. A follower of this school is for example Norwegian marketing researcher Solberg (2001), who analyses the patterns of market information acquisition of export companies[5] and how far these patterns are related to the extent of exporters' market relationships.

II.1.5. Positioning the research topic

Within marketing, my topic is linked to the perspective of *managerial information processing* (see Figure 1, page 5) and to its subtopic *„Managerial use of market knowledge"* (see Table 1, page 7). My research will investigate the utilization of a *single* type of information (namely that of commissioned market research) in marketing management tasks.

II.2. Overview of studies related to the managerial use of market knowledge

II.2.1. Introduction to the chapter

My purpose is to summarize the results of twenty years' research into the managerial use of market information. The systematic, *state-of-the-art* presentation of the topic is a novelty by itself, as never before had a similarly detailed study on the managerial use of market knowledge been published in marketing literature.

[5] According to Solberg (2001), there are some exporters who do not apply market research to explore market conditions at all and acquire information exclusively through their relationship networks, while those with less developed networks use other sources /publications by chambers of commerce, etc/.

II.2.2. Roots of the research topic

The history of the research into the managerial utilization of market information - more exactly market research - began in the late 1960s. Paradoxically, the start of the research into the use of information was not related to corporate marketing managers. Instead, they tried to explain how the results of Gallup polls and social science research are utilized in *public administration* (Mann and Likert 1952; Berry 1967; Chesler and Flanders 1967; Dunnette and Brown 1968; Carter 1971; Alkin, Kosecoff *et al.* 1974; Caplan, Morisson *et al.* 1975; Rich 1975; Rich 1977; Rich 1979; Cohe and Garet 1975; Van de Vall 1976; Van de Vall and Boyas 1981; Van de Vall and Bolas 1982; Knorr 1977; Patton, Grimes *et al.* 1977; Patton 1978; Weiss and Bucuvalas 1977; Weiss 1981; Weiss and Heide 1993; Rothman 1980).

It was Deshpandé and Zaltman (1983) who introduced this topic to the field of marketing when synthesizing past research results about two decades ago with the following conclusions:

- ✓ Research results *do not significantly influence* decision making, results are not relied on very heavily
- ✓ Gallup polls and social science research are usually not used for decision making but rather for *orientation*
- ✓ In spite of their partial utilization or no utilization at all, surveys are considered to be a *valuable tool* by decision makers in public administration.

II.2.3. Foci of the research

The managerial use of market information is a particularly complex and elusive phenomenon. Executives gather information from a variety of sources (e.g. market research, relationship networks, colleagues, IT systems) and utilize them in different ways (e.g. for making a certain decision, understanding a problem or confirming a decision). Possibly, some of the information will not be utilized immediately, or at all.

Consequently, marketing researchers examining the topic had to limit their area of focus to an extent which allows for the quantitative measurement of the use of information.

In marketing studies on the topic, the following combinations can be identified (Keszey 2002):

A Controlling the type of information

- ✓ *Specialities:* Researchers analyse the utilization of information from *market research*. Most of the studies try to model the factors affecting the use of commissioned market research reports; an investigation of the utilization of market research done by the companies' own researchers occurs less frequently.
- ✓ *Advantage*: Use of information is easier to examine and to measure when related to a given type of information than in general (e.g. the use of information shared between two department managers).
- ✓ *Disadvantage:* Focusing on information from external market research instead of already available intra-company information may be criticised as the majority of companies hardly ever purchase market research reports while the question of utilizing scattered information present throughout the organization is relevant for every single business.
- ✓ *Studies published in leading periodicals and expressly analysing the use of market studies:* (Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; Deshpandé and Zaltman 1983; Deshpandé and Zaltman 1984; Deshpandé and Webster 1989; Hu 1986; Lee, Acito *et al.* 1987; Lee, Lindquist *et al.* 1997; Menon and Wilcox 1994; Menon and Wilcox 2001; Moorman, Zaltman *et al.* 1992; Moorman, Deshpandé *et al.* 1993; Moorman, Deshpandé *et al.* 2001; Sinkula 1990; Zaltman and Moorman 1988; Zaltman 1997; Zaltman and Deshpandé 2000).

B Controlling the task

- ✓ *Specialities*: A part of the studies look at the use of scattered intra-company market information as related to a *given corporate function or project*. Common is the investigation of market information use connected to *product innovation*. Studies concerned with information use in product development can not only be found in marketing literature (e.g. (Moorman 1995) but in innovation literature, as well (e.g.: Gupta, Raj *et al.* 1985; Gupta, Raj *et al.* 1986; Gupta and Wilemon 1988; Gupta and Wilemon 1988; Gupta 1994; Gupta, Jain *et al.* 1999; Moenaert and Souder 1990; Van den Bulte and Moenaert 1998; Moenaert and Souder 1996; Griffin and Hauser 1992). Besides information use in product development, marketing literature also

details the use of internal information as related to the evaluation of *marketing communication plan* implementation (Low and Mohr 2001).

- ✓ *Advantage*: Information *use* as related to a given task can be better *examined* and respondents can *more easily recall* how information was utilized or how knowledge was shared with colleagues from other departments when related to a given assignment.
- ✓ *Disadvantage*: A quantitative research of marketing's relations to other departments is hard to perform, since a great mass of tasks does only affect two departments /for example, innovation typically affects R&D and marketing/. This hinders *generalization*, the extension of research results about information sharing to the case of more than two departments (Ruekert and Walker 1987).
- ✓ *Studies published in leading (not exclusively marketing) periodicals analysing the use of market knowledge as related to a certain task:* Innovation - (Moorman 1995; Gupta, Raj *et al.* 1985; Gupta, Raj *et al.* 1986; Gupta and Wilemon 1988; Gupta and Wilemon 1988; Gupta 1994; Gupta, Jain *et al.* 1999; Moenaert and Souder 1990; Van den Bulte and Moenaert 1998; Moenaert and Souder 1996; Griffin and Hauser 1992; Chervany and Dickson 1974; Rindfleisch and Moorman 2001). Evaluation of the marketing communication plan - (Low and Mohr 2001), Evaluation of marketing programs - (Andrews and Smith 1996),

C Controlling the departments

- ✓ *Specialities:* Respondents of these studies are managers who do not work in the marketing department but need to closely co-operate with it in their everyday job. They are asked to think of some manager from the marketing department and recall how frequently they exchanged information recently (typically a period of three months). Queried managers include R&D leaders (Maltz 2000/a; Maltz and Kohli 2000/b Gupta, Raj *et al.* 1985; Griffin and Hauser 1996), engineering department leaders (Fisher and Maltz 1997), accounting leaders (Homburg and Karlhaus 1998), manufacturing leaders (Hutt and Speh 1984; Maltz and Kohli 2000/b). The study of (Maltz and Kohli 1996) analyses simultaneous information relationships of the marketing function to several other departments (R&D, finance and manufacturing), while the work of Ruekert and Walker (1987) looks into the relationships between marketing and manufacturing, R&D and accounting - from the perspective of information sharing as well as resource sharing.

- ✓ *Advantage*: This approach provides a description of information sharing that *better corresponds to corporate practices*, as executives not only share information concerning certain given tasks. According to organizational research (Griffin and Hauser 1992), *different departments can be characterized by different communication patterns, information sharing schemes.* Dissimilarities result from departments' differing point of view. Marketing managers, people with a business background, more easily communicate with the likewise economically oriented general managers or the upper management than with technically oriented engineers or R&D executives (two-communities metaphor). Research into the marketing department's simultaneous information sharing with other departments offer the opportunity to numerically express these differences and their effect on the utilization of information.
- ✓ *Disadvantage*: This research stream is where the „incomprehensibility" of the use and sharing of information caused the most severe difficulties. While recalling information use and sharing as related to a given market research, task or project is relatively easy, managers may find it very hard to call back the process of information sharing with other department heads *in general*.
- ✓ *Studies published in leading (not exclusively marketing) periodicals analysing the use of market knowledge as related to the relationship of the marketing department and other departments:* (Gupta, Raj *et al.* 1985, Gupta, Raj *et al.* 1986, Gupta and Wilemon 1988, Moenaert and Souder 1990, Moenaert and Souder 1996, Maltz, Souder *et al.* 2001, Souder 1981, Van den Bulte and Moenaert 1998, Fisher and Maltz 1997, Griffin and Hauser 1992, Hutt and Speh 1984).

II.2.4. Factors affecting the use of information

Empirical marketing studies on the managerial processing of market information extensively analyse *the factors affecting the processing of information*.

When detailing the factors affecting information use, studies *will not be sorted* according to whether the focus of attention was directed at the use of market researches, the utilization of information from other departments or the use and sharing of intra-company information as related to given tasks, since in spite of the differing foci and limits of their studies, market information processing researchers organically utilize the whole research base of the topic.

The systematic review of relating studies lead to the identification of several frequently applied groups of *independent* variables (Keszey 2000/a; Keszey 2000):

1. information-related;
2. problem-related;
3. user and supplier-related;
4. inter-personal;
5. inter-functional;
6. organizational; and
7. environmental factors.

The variables in each group are shown in Table 2, page 15. The table contains the authors, year of publication, research method applied and sample size for each study. Furthermore, one can get to know what type, what dimension of information use was in the focus and whether there was any other dependent variable apart from the utilization of information. Where regression analysis was applied, the value of R-squared is also included. All dependent variables of the studies are contained in the table. Also included are all independent variables appearing in the hypotheses; whether the research found the given variable to have a significant effect on the dependent variable and the extent of this impact (value of the standardized β coefficient) is shown in parentheses.

Table 2 : Factors affecting the managerial use of information according to studies on the topic

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Deshpandé and Zaltman 1982/a)	Questionnaire completed by 86 marketing managers and 90 market researchers	Instrumental use of market research reports R-squared=.655	Technical (.08*) and professional (.30*) quality of the research Political acceptability (.12*), counter-intuitiveness (-.21*) Implementa-bility of recom-mendations (.12*)	Research purpose: Confirmatory (.11*) Exploratory (-.15*)	---	Level of co-operation between the marketing manager and the researcher (.23*)	---	Formalisation (-.21*) Centralisation (-.21*)	---
(Deshpandé 1982/b)	Questionnaire completed by 92 marketing managers	Instrumental use of market research reports R-squared=.672	---	---	Company (-.02) and industry-specific (.04) experience of the marketing manager Involvement of the marketing manager in decision making (.48***)	---	---	Degree of hier-archy in autho-rity (-.38*), Job codification (-.38**) and rule observation (-.07), Job specificity (-.38*)	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Deshpandé and Zaltman 1984)	Questionnaire completed by 92 marketing managers, questionnaire completed by 86 market researchers	Istrumental use of market research reports as perceived by marketing managers (MANAGER) and market researchers (RES.)	Technical (RES.: .23*), (MANAGER: .08*) and professional (RES.: .23*) (MANAGER: .30*) quality of the research Political acceptability (RES.: .34*) (MANAGER: .12) Counter-intuitiveness (RES.: .18*) (MANAGER: -.21*) Implementability of recommendations (RES.: .19*) (MANAGER: .12*)	Research purpose: Confirmatory (RES.: -.19*) (MANAGER: .11*) Exploratory (RES.: .33*) (MAN.: -.15*) Stage of product in life cycle (RES.: .14*) (MAN.: .09*)	---	Level of co-operation between the marketing manager and the researcher (RES.: .36*) (MAN.: .23*)	---	---	---
(John and Martin 1984)	Questionnaire survey at 53 companies, several respondents in each company	Instrumental use of the marketing plan, credibility of the marketing plan R-squared=.60	---	---	---	---	Separatedness of the marketing department (-.09*) Its specialization (.06*)	Formalisation (.40*) Centralisation (-.47*)	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Hu 1986)	Experiment with 23 marketing managers and 26 researchers	How much market research reports reduce the user's uncertainty in decision making	Problem-specificness of the information	---	Position of the respondent (manager / researcher)	---	---	---	---
(Deshpandé and Zaltman 1987)	Telephone survey of 201 marketing managers	Instrumental use of market research reports amongst companies operating in a B2B or B2C environment R-squared: no data	Counter-intuitiveness (B2C: -.21*) (B2B: -.11*)	Research purpose: Confirmatory (B2C: .11*) (B2B: ns); Exploratory (B2C: -.15*) (B2B: .13) Stage of product in life cycle (B2C: .09*) (B2B: ns)	---	---	---	Formalisation (B2C: -.49*) (B2B: .17) Centralisation (B2C: -.21*) (B2B: ns)	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Lee, Acito *et al.* 1987)	Experiment with 170 MBA students	Market research reports Instrumental use, Perceived quality of information	Decision makers rely more on qualitative market researches than on survey-type studies. The use of survey-type studies is not affected by the sample size and method of sampling The perceived quality of survey-type studies is not affected by the sample size and the method of sampling	---	Preliminary expectations for research results (the more the results correspond to the expectations, the better the perceived quality and the more they are utilized in decision making)	---	---	---	---
(Perkins and Rao 1990)	Experiment, 15 marketing leaders from the same company	Differences in the use of different types of market information (e.g. Nielsen data, colleagues' opinions, consumer research, etc.) for experienced and unexperienced employees	---	Experience is more important when solving ill-structured problems than for well-structured ones (considering the latter one, the performance of experienced and unexperienced managers did not differ significantly	Experienced managers considered a larger set of information to be useful, handled „soft" information in a different way and made more conservative decisions than their less experienced colleagues	---	---	---	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Menon and Varadarajan 1992)	Delienation of a theoretical model	General market information from an external source (integrated model) Action-oriented, knowledge enhancing and affective (symbolic) use of information	Cost, perceived credibility and usefulness of information	Complexity, permanence	---	---	---	Structuredness of the company, innovation culture Internal and external coreseracheruni cation processes	Market stability
(Moorman, Zaltman *et al.* 1992)	Questionnaires completed by marketing managers, non-marketing managers and market researchers Investigation of cooperating dyads: int. researcher – int. Mark.man. : 192 int. manager - external researcher: 172 int. researcher – ext. researcher: 331 internal non-marketing mgr. - int. Mark.manager: 84	Instrumental use of market research reports (I) Rsquared=.16); Commitment to the researcher - manager relationship (COM) (Rsquared=.47) Quality of co-operation (COP) (Rsquared=.44) Extent of participation in the research process (PAR) (Rsquared=.18)	---	---	---	Co-operation between int. researcher - ext. researcher (I: .69*) (COM: -.13) (COP: .60*) (PAR -.18) Trust (I: -.02) (COM: .16*), (COP: .64*) (PAR: .21*) Extent of participation in the research (I: .02) (COM: .06), (COP: .18*) Quality of co-operation (I: .33* (COM: .40*) Commitment (I: -.005)	---	---	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Moorman, Deshpandé *et al.* 1993)	Questionnaire completed by 779 marketing, and non-marketing managers and market researchers Model Rsquared=.51	Market research, Marketing managers' trust in market researcher (as an important antecedent variable of information use)	---	Perceived importance of the research problem (-.04) Customization, uniqueness of the research problem (.04**)	Marketing manager's: workplace experience(ns) job experience(ns) Researcher's: Experience (.19*) Ability to reduce uncertainty (.32*) Sincerity (.15*) Compliance to professional standards (.62*) Job title (.01) Co-operative skills (.04) Tactfulness (.17*) Observing the deadlines (.08**) Friendliness(-.10*	To whom does the market researcher report?: brand manager (-.29**), general manager (-.01), marketing / sales manager (.02), R&D manager (-.02)	---	Formalization of the company (-.14***) Degree of centralization (.02) Complexity of the activity (.02) User's org. Culture: clan (.02), adhocracy (.00), hierarchy (-.01), market (-.002) Market researcher's organizational culture: clan (.03), adhocracy (.01), hierarchy (-.05***), market (-.03)	---
(Moorman 1995)	Questionnaire completed by 92 marketing managers	General market information re-lated to product development projects, from an external source Instrumental (I) (Rsquared=.13) and conceptual (C) use (Rsquared=.273)	---	---	---	---	---	Organizational culture: Adhocracy (I: .010) (C: .086) Market (I: .061) (C: .128) Hierarchy (I: -.067) (C: -.195*) Clan : (I: .162**) (C: .164*)	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Diamantopulos and Souchon 1995)	In-depth interview survey of 12 exporters (sales managers responsible for exports)	Instrumental, conceptual and symbolic use of export-related information	Export marketing research, export activity-related information, market knowledge and observations related to exports	---	---	---	---	---	---
(Maltz and Kohli 1996)	Questionnaire completed by 1061 non-marketing (manufacturing, R&D and financial) managers of 270 divisions	Use of information from the marketing department by other departments (manufacturing, R&D, financial) Trust (T) (R2=.36), Frequency of communication (F) (R2=.08) Formalisation of communication (FC) (R2=.10) Perceived quality of information (Q) (R2=.39) Utilization of information (instrumental and conceptual not separated) (I) (R2=.25)	Perceived quality of information (T: .894***); (I: .719***)	---	Information supplier's level of commitment to the company (T: -.008***); (F: .098***)	Frequency of communication (Q: non-linear /reverse U-shaped/), (I: .231) Formalization of communication (Q: -.192***) (I: .240***) Information supplier in a lower position (T: -.031*), (F: .144***) (FC: -.006), (I: -.040)	Joint(multi-departmental) client visits (F:.098***); (FC: .060) Rivalry between departments (T: -.099**) Physical dis-tance of departments (F: -.059**) (FC: .228***)	Structural flux (F: .020) (FC: .228***)	Market dynamism (F: .097***) (Q: -.015) (I: .066**)

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Lee, Lindquist *et al.* 1997)	Experiment with 60 marketing managers	Market research report	Research design, sample size, response rate, marginal distribution of the sample and the cenzus	---	Homogeneity of the target group	---	---	---	---
(Fisher and Maltz 1997)	2 separate studies, 1st study: 89 marketing mgrs, questionnaire; 2nd study: 72 marketing mgrs questionnaire	General information between the marketing and the engineering department	---	---	Relative identification with the own department	---	Physical distance of departments, perceived quality of co-operation	Communication norms, jointmulti-departmental goals, intra-company structural changes	Market dynamism
(Homburg and Karlhaus 1998)	WORK IN PROGRESS Conference publication Dyad approach: Planned to survey 133 marketing and 133 accounting managers	Utilization of information from the marketing manager by the accounting manager Dependent variables in plan: instrumental, conceptual and symbolic IF	Perceived quality of information	---	Expertise of user	Frequency of co-operation between marketing and accounting managers Formalisation of co-operation between marketing and accounting managers	---	Consumer orientation of employees	---

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	2. Problem-related	3. User- and supplier-related	4. Inter-personal	5. Inter-functional	6. Organizational	7. Environmental
(Maltz, Souder *et al.* 2001)	R&D managers at 256 high-tech companies, questionnaire	Conceptual (C) and instrumental (I) use of information sent by marketing to R&D Rivalry between marketing and R&D (RIV) (Rsquared= .11) Perceived quality of information (Q) (Rsquared= .36) Conceptual (C) use of information (Rsquared= .36) Instrumental (I) use of information (Rsquared= .38)	Perceived quality of information (C: .53***) (I: .47***)	---	---	---	Rivalry between departments (Q: .57***) (I: -.17***) Multi-departmental teams (RIV: -.20***) (Q: -.006) (C: .14***) (I: .07)	Team building activities (RIV: .03) (IM: .12**) (C: -.09) (I: .04) Physical distance of departments (RIV: .05) (Q: -.01) (C: .01) (I: .02) Jointclient visits (RIV: -.21***) (Q: .07) (C: -.04) (I: .02) Structural flux (RIV: .15***) (C: .18***) (I: .03)	---
(Low and Mohr 2001)	Questionnaire completed by 421 marketing managers	Instrumental use for evaluation of marketing communication (Rsquared= .32)	Perceived quality of information (.38***)	Complexity of the task (.11*) Number of those involved in decision making (.11*)	Rationality of manager's decision making style (.11*)	---	---	Size of marketing communication budget (.18***) Formalisation (.11*)	Market turbulence - consumers (-.05) and - technology (.13**)

Study	Research method and sample size	Type of information examined, Dependent variables, R-squared value of the model	Independent variables examined						
			1. Information-related	**2. Problem-related**	**3. User- and supplier-related**	**4. Inter-personal**	**5. Inter-functional**	**6. Organizational**	**7. Environmental**
Summary			Technical quality Professional quality Political acceptability Counter-intuitiveness Implementa-bility of recom-mendations Problem-specificness Perceived cost Credibility Perceived usefulness Perceived quality	Research purpose: (confirmatory / exploratory) Stage of product in life cycle Structuredness Complexity Perceived importance of the problem Uniqueness of the problem Number of those involved in decision making	Company- and industry-specif-ic experience Involvement in decision making Market researcher's ability and experience in reducing uncertainty Researcher's sincerity, compliance to professional standards, job title, co-operative skills, tactfulness, ability to ob-serve deadlines, friendliness	Level of co-operation Trust Perceived quality of co-operation Frequency and formalisation of communication Differences in position	Separatedness and specializa-tion of the departments Rivalry Physical distance Multi-departmental teams Physical distance of departments Perceived quality of multi-departmental co-operation	Formalisation Centralisation Hierarchy Control of rules Internal and external communication processes Organizational culture Structural flux Communication norms Multi-depart-mental goals Consumer orientation Team building activities Size of marketing communication budget	Market stability / dynamism Technological turbulence

*p<.05

**p<.01

***p<.001

A Information-related factors

The impact of the nature of information on its utilization was investigated by several studies (Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; Deshpandé and Zaltman 1984; Hu 1986; Deshpandé and Zaltman 1987; Lee, Acito *et al.* 1987; Menon and Varadarajan 1992; Diamantopulos and Souchon 1995; Maltz and Kohli 1996; Lee, Lindquist *et al.* 1997; Homburg and Karlhaus 1998; Maltz, Souder *et al.* 2001; Low and Mohr 2001).

Amongst the properties of information, its *technical features, „contextual characteristics"* and the *attributes related to quality* proved to have an effect on information use.

The *technical characteristics* (e.g. positioning of figures, statistics, comprehensibility and perspicuity of data, explanation being understandable for executives /e.g. avoidance of statistical terms/, etc.) were examined by (Deshpandé and Zaltman (1982/a, 1984). Their results indicate that marketing managers' judgement of the technical features of the research has a weak positive effect on market studies' utilization in marketing management tasks, thus the better the technical quality of a research, the more leaders rely on it in decision making (instrumental use of information). Deshpandé and Zaltman (1984) pointed out that when asked how significant the role of the technical construction of a market study is in its utilization by marketing managers, market researchers considered this aspect to be more important than the users - marketing executives - themselves.

Furthermore, information use is affected by *„contextual" factors*. Variables connected to how the information „fits" into the process of information processing rather than to its technical appearance or content are regarded as contextual factors.

Considering the use of information in decision making, significant attributes are direct *applicability*, that is the results of market research should be directly applicable to practice, and *political acceptability*; yet several studies look at how the *counter-intuitive* nature of some research results affects their utilization, too.

Deshpandé and Zaltman (1982/a) evinced that the more acceptable a given market study is within the company's *political field* (e.g. does not cause discomfort to employees), the more its is relied on. However, counter-intuitiveness, the deviation of the study's results from the expectations and preliminary hypotheses, influences the use of information in decision making negatively. Deshpandé and

Zaltman (1984) asked market researchers as to what they think the impact of their studies' political acceptability to the client's company is on their managerial use. The results of Deshpandé and Zaltman (1984) showed that market researchers assigned higher importance than marketing managers to this factor, saying that the better a market study suits the client's political field, the more it is applied in decision making. Another interesting finding was that market researchers thought counter-intuitiveness, the discrepancy between results and intuitions to have a positive effect on the utilization of their studies. The influence of counter-intuitiveness on information use in consumer (B2C) and organizational (B2B) markets was looked into by Deshpandé and Zaltman (1987). Results revealed that counter-intuitiveness has a larger negative impact on the utilization of research in consumer markets than in organizational ones.

Information quality or perceived information quality was the quality attribute the influence of which was investigated most frequently. The distinction between quality and perceived quality is highly significant. The opportunities of the marketing manager (having no insight into the process) for judging the conditions under which the research was completed are very limited, and so are those for evaluating the accuracy of the statistical techniques applied, due to their lack of statistical skills. The experiment of Lee, Acito *et al.* (1987) confirmed that sample size and sampling method do not influence marketing managers' professional judgement of market studies. Perceived quality of market researches has a positive and significant effect on their utilization in marketing management tasks (Deshpandé and Zaltman 1982/a; Deshpandé and Zaltman 1984; Menon and Varadarajan 1992; Maltz and Kohli 1996; Homburg and Karlhaus 1998; Maltz, Souder *et al.* 2001; Low and Mohr 2001).

B Problem-related factors

The relationship between *problem-related factors* and the use of information *has not received significant attention* in empirical research.

Deshpandé and Zaltman (1982/a) analyzed the type of the market research problem. A confirmatory purpose has a positive and significant effect on the use of information, while an exploratory purpose has a negative and significant impact. In a disjoint set of companies, studying the market research information use of companies

in an organizational market, Deshpandé and Zaltman (1987) found that the more dominant the exploratory nature of a research, the more decision makers rely on it.

The user-*perceived importance* of the market research project was classified as a problem-related factor, however, Moorman, Deshpandé *et al.* (1993) did not examine its direct impact on the use of information. Moorman, Deshpandé *et al.* (1993) explored how this very factor affects trust in the researcher. According to their results, the importance of the market research problem perceived by the manager does not have a significant direct effect on trust in the researcher, yet the more unique is the task, the deeper is executives' trust in the professional.

Perkins and Rao (1990) surveyed the relationship between the programmability of the problem and information use for experienced and unexperienced managers. Their experiments revealed that there was no significant difference in performance for well-structured problems, while for ill-structured ones, experienced leaders performed better - utilizing a larger number of information sources.

The research of Low and Mohr (2001) into intra-company evaluation of marketing communication activities concluded that the more complex the task of evaluating the plan seems to managers, the more they rely on the information available. According to the results of Low and Mohr (2001), the larger the number of marketing executives involved in the evaluation of the marketing communication plan, the wider the variety of information considered and utilized.

C User- and supplier-related factors

Amongst the factors related to the information user, *company- and industry-specific experience* was the most popular research topic (Deshpandé 1982/b; Perkins and Rao 1990; Moorman, Zaltman *et al.* 1992; Moorman, Deshpandé *et al.* 1993; Homburg and Karlhaus 1998).

These studies brought differing results. While Deshpandé and Zaltman (1982/a) found that experience does not influence the use of information, Perkins and Rao (1990) claims that experience does play a significant role in solving *ill-structured problems*. Their research showed that leaders with more experience relied on a wider variety of information when making complex, ill-structured decisions. In addition, Perkins and Rao (1990) detected that more experienced decision makers found „soft" information more useful than their junior colleagues.

The impact of the commitment of the information user to the organization was also examined several times (Maltz and Kohli 1996; Fisher 1978). Though the relationship between commitment and the use of information was not investigated directly, it could be shown that managers with a „feeling of ownership" tend to communicate more frequently and to have more trust in colleagues sharing market information.

The role of personal factors in the development of trust between market researcher and marketing manager as related to the managerial utilization of market researches was analysed by Moorman, Deshpandé *et al.* (1993). After Moorman, Deshpandé *et al.* (1993), trust in the researcher is not influenced by the marketing manager's workplace and job experience. Nevertheless, the more experienced the researcher appears to be and the more they are able to reduce uncertainty (e.g. determining the causes of unexpected results), the more they are trusted by the marketing manager. Additionally, Moorman, Deshpandé *et al.* (1993) found sincerity and tactfulness (which, for example, may have a role in the interpretation of unfavorable results) to affect trust in the researcher positively, as well. Thus Moorman, Deshpandé *et al.* (1993) does not deal with the direct relationship between the use of information and the personal characteristics of the information user and its supplier. Still, in the conceptual framework proposed by researchers, trust appears as a kind of antecedent variable between the - explicitly examined - independent variables of the model and the use of information.

D Inter-personal factors

According to the results of Deshpandé and Zaltman (1982/a), the level of co-operation between the marketing manager and the market researcher has a positive and significant effect on the (instrumental) use of information. Market researchers also expressed the opinion that the more extensive the co-operation during the project, the more marketing executives rely on the conclusions of market studies Deshpandé and Zaltman (1984). However, the study of Moorman, Zaltman *et al.* (1992) did not confirm the same hypothesis. After (Moorman, Zaltman *et al.* 1992), the level of co-operation only affects the perceived quality of co-operation without having a direct impact on information use. Maltz and Kohli (1996) did not find a significant relationship between the frequency of communication and information

use in the case of information sharing between marketing and non-marketing executives.

How the difference in the job titles of the supplier and the user of information affects information use was looked into by Maltz and Kohli (1996). They observed that the lower the position of the employee sharing information, the less it will be utilized in completing management tasks.

According to Moorman, Zaltman *et al.* (1992), market studies are utilized best if the organization procuring the research dedicates an own, internal market researcher - and not some general or marketing manager - to the research project.

Moreover, an important factor considering market information use is that researcher and manager should „*speak the same language*". (Deshpandé and Zaltman 1982/a; 1984) meant that market researchers consider themselves primarily as researchers while executives consider themselves businessmen; and their identification being different may harm the trust between them. The differences between researchers' and executives' „cognitive schemes" was described by Caplan, Morisson *et al.* (1975), coining the expression „two communities metaphor" - the metaphor of two (differently conditioned) communities.

E Inter-functional factors

Factors related to the nature of the departments the information supplier and user belong to received special attention in researches into the use of intra-company information.

Amongst the department-related variables of information use, researchers (Maltz and Kohli 1996; Fisher and Maltz 1997) investigated the relationships between *inter-departmental rivalry*, physical distance between departments, inter-departmental co-operation and the use of information. Maltz and Kohli (1996) and Fisher and Maltz (1997) provided empirical evidence that the *physical distance between departments* - indirectly, through information sharing - affects the utilization of information and that inter-departmental co-operation (e.g. joint client visits) does directly, positively influence information use. The impact of *inter-departmental rivalry* is somewhat ambiguous: while Maltz and Kohli (1996) did not succeed in verifying the existence of a negative relationship between rivalry and use of information, a more recent study Maltz, Souder *et al.* (2001) supported the

hypothesis suggesting a *negative relationship* between *rivalry* and the utilization of information.

F Organizational factors

Organizational configuration - more precisely formalisation and centralisation were the organizational factors to receive significant attention.

Some of the researchers (Deshpandé and Zaltman 1982/a; Deshpandé 1982/b) suggest that the *formalisation of the company hinders the utilization of market researches.* However, in a study analysing the utilization of marketing plans in practice, John and Martin (1984) found that the more formalised the company is, the more they rely on the marketing plan in management activities. The results of Maltz and Kohli (1996) showed that the more formalised the communication channels are between the information supplier from the marketing department and the user from another department, the more the user relies on the information shared. Low and Mohr (2001) concluded that the more formalised the routines of a company are, the more information they use in evaluating marketing communication activities.

Some of the studies (Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; Deshpandé and Zaltman 1984) found a negative and significant relationship between *centralisation* and information use, while Moorman, Deshpandé *et al.* (1993) did not find a significant relationship at all.

The effect of *organizational culture* on information use and on managers' trust in market researchers was examined in detail by Moorman, Deshpandé *et al.* (1993) and Moorman (1995), while Deshpandé and Webster (1989) discussed it as related to the taxonomy of *culture* ("adhocracy", "hierarchy", "market" and "clan"). After Moorman, Deshpandé *et al.* (1993), the organizational culture of the company ordering the research does not, yet that of the market research company may affect marketing executives' trust in researchers. According to Moorman, Deshpandé *et al.* (1993), if the market research company's culture is hierarchic, marketing managers trust researchers less. Moorman (1995), examining the relationship between the culture of the company purchasing market information and the utilization of information found that the more clan-like the culture, the more capable executives are of the instrumental and conceptual use of information.

G Environmental factors

Researchers (Menon and Varadarajan 1992; Maltz and Kohli 1996; Fisher and Maltz 1997; Low and Mohr 2001 only investigated the *stability* and *dynamism* of the environment as possible influencing factors of information use. Menon and Varadarajan (1992); Maltz and Kohli (1996); Fisher and Maltz (1997)) *found a positive relationship between environmental turbulence and the use of information*, while Low and Mohr (2001) verified the positive relationship between the company's technological environment and information use. Yet *the relationship between consumer environment and information use did not prove significant in their studies.*

II.2.5. Measuring the use of information

A Types (dimensions) of information use appearing in empirical studies: instrumental, conceptual and symbolic use of information

Though leading academic periodicals specialized in marketing (e.g. Journal of Marketing, Journal of Marketing Research, etc.) have published a great number of empirical studies concerned with companies' utilization of market information and its motives in the past two decades, *no consensus at all has been reached* on how to measure the use of information (Keszey 2002).

Most authors agree that several ways of utilization, routines of use are present in company practice - thus the phenomenon of information use is a *multidimensional construct*. Still, researchers apply differing items, statements in their questionnaires for measuring those modes of use - that is the dimensions *are operationalized differently*. On the other hand, the majority of researches did not *comprehensively investigate* the phenomenon of information use but only focused on one or two modes of utilization.

In their studies on information use, authors (e.g. Deshpandé & Zaltman 1982, 1984, 1987; Diamantopulos and Souchon 1995; Homburg and Karlhaus 1998) differentiate between the 1.) *instrumental*, 2.) *conceptual* and 3.) *symbolic* dimensions of the use of information.

These three categories of information use first appeared in the literature of public policy (for details see page 10). Marketing researchers largely rely on these

studies when analyzing how marketing executives utilize the results of market researches.

i Instrumental use of information

According to Caplan, Morisson *et al.* (1975), the use of information is *instrumental* if the manager directly utilizes uses the information for *solving a well-defined* problem. Thus market knowledge, the results of market research heavily influence the outcome of decision making in some existing management problem. For example, in the scale of Deshpandé and Zaltman (1982/a) aiming at measuring instrumental information use, the following statement appears: without the information, no decision could have been made.

ii Conceptual use of information

Beyer and Trice (1982) states that in the case of *conceptual* information use, managers utilize the information in order to understand some problem in detail, as a kind of background information. This mode of use - compared to the instrumental way, where information is a decision support tool - is rather *indirect and less specific*. Considering conceptual information use, market knowledge contributes to the expansion of managers' knowledge base and encourages „joint thinking" within the company.

iii Symbolic use of information

The definition of the *symbolic* use of information by Weiss and Bucuvalas (1977) states that information is used to legitimate a decision - often having been made before the information became available - in the eyes of the management, the parent company or the shareholders.

These three dimensions, taken over from public policy research, are the ones to appear in marketing research.

b Unequal attention given to the instrumental, conceptual and symbolic modes of information use

In empirical research, unequal attention has been given to these three modes of information use. Surveys typically measure the *instrumental* and *conceptual* uses, practically neglecting symbolic information use, as evidenced by Table 3[6].

Table 3 : Appearance of the dimensions of information use in English-language academic-level research

Modes of information use in empirical research		
Instrumental	**Instrumental and conceptual**	**Instrumental, conceptual and symbolic**
Deshpandé and Zaltman 1982/a Deshpandé 1982/b Deshpandé and Zaltman 1983 Deshpandé and Zaltman 1984 Deshpandé and Zaltman 1987 John and Martin 1984 Lee, Acito *et al.* 1987 Perkins and Rao 1990 Moorman, Zaltman *et al.* 1992 Moorman, Deshpandé *et al.* 1993 Dennis 1996 Lee, Lindquist *et al.* 1997 Low and Mohr 2001	Moorman 1995 Fisher and Maltz 1997 Maltz 2000/a Maltz and Kohli 2001	Diamantopulos and Souchon 1998

The table reveals that most studies examine *only one* dimension, the instrumental use directly related to decision making. While some empirical studies did look into the conceptual mode, marketing literature features only one pair of authors who provided an all-comprehensive analysis of the topic. Another unique characteristic of this very study is that -as opposed to the other, questionnaire-based surveys - a *qualitative* method (in-depth interviews) - is applied in order to explore the phenomenon. The reasons for this will be detailed in chapter III.2.3. (page 49).

[6] An interesting fact – raising some research ethical concerns – is that there were some studies (Low and Mohr 2001; Moorman 1995) published in leading American marketing periodicals which *did not even mention* other dimensions of information use than those examined in the study, namely instrumental and conceptual uses.

B Alternative typologies of information use (not appearing in empirical research)

a Taylor's taxonomy of information use

Organizational literature features another typology by Taylor (1991), little known in the field of marketing. Taylor (1991) identified the following dimensions of information use:

i Enlightenment

Information facilitates the contextualization or interpretation of some phenomenon. Information assists in answering questions like: Do similar situations exist? What are the experiences of the company in the co-operation with firm X in producing product Y? How could this experience prove useful in the case of product Z?.

ii Problem understanding

Problem understanding stands for a more specific mode of use than enlightenment, as related to understanding a certain problem.

iii Instrumental

Information supports the development of specific actions. Possible forms are instructions and guidelines.

iv Factual

Information is used to identify the facts of some phenomenon, to describe reality. A prerequisite for factual information use is the high perceived quality (reliability, accuracy, etc.) of information.

v Confirmational

The use of information aims at verifying some former piece information. By the confirmational use of information, firms often try to explore further options and opportunities. Should that former piece of information not be confirmed, the user is likely to re-interpret the data or to decide for accepting one piece of information or the other based on the reliability of the sources.

vi Projective

Information is used to predict future events and results. Projective use of information is oft related to forecasts, estimates and the probabilities of outcomes.

vii Motivational

Information is used to sustain personal interest in order to keep the course of events, the task, project etc. running smoothly.

viii Personal or political

Use of information aims at building relationships or enhancing one's status, reputation or personal fulfillment.

b Relationships between Taylor's typology and the information use typology traditionally applied in marketing

Taylor's taxonomy of eight classes does not contradict the three dimensional typology of information use known in the field of marketing (see pages Table 4 and 35).

The *instrumental* mode of marketing may be considered as the pair of the instrumental use in Taylor's (1991) taxonomy (though Taylor (1991) suggested a tighter interpretation than marketing researchers), and the factual use of information also belongs to this group.

The *conceptual* dimension (seeking background information, exploring comprehensive relationships, etc.) corresponds to Taylor's (1991) enlightenment, problem understanding and projective use.

The *symbolic* mode of use matches the confirmational, motivational and political dimensions of Taylor's (1991) approach.

Table 4 : Relationships between the taxonomy of Taylor and the dimensions of information use traditionally applied in marketing - own approach

	Instrumental	Concep-tual	Symbolic
Enlightenment		X	
Problem understanding		X	
Instrumental	X		
Factual	X		
Confirmational			X
Projective		X	
Motivational			X
Personal or political			X

Source: (Keszey 2002)

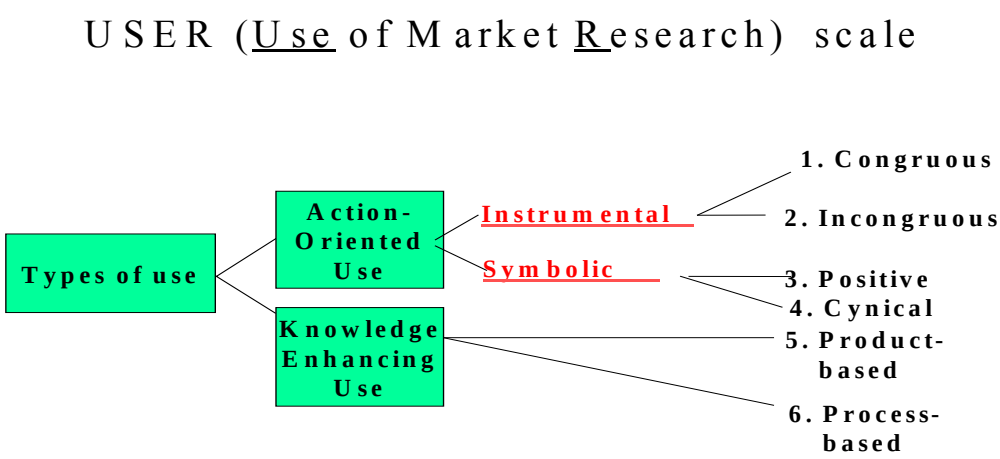
c The USER (Use of Research) scale

Menon and Wilcox (1994) developed the so-called USER (Use of Research) scale for the express purpose of *uniformly measuring* the use of market research information. However, the scale has not been employed by marketing researchers. *None* of the studies on the use of market research information published in leading American periodicals after 1994 applied the USER scale.

Considering market studies, the USER scale adopts a wider interpretation of the concept of information use - as compared to the traditionally accepted instrumental, conceptual and symbolic dimensions.

Market research, according to Menon and Wilcox (1994), can be approached *in different ways*. It may be looked at as a *product* or on the other hand as a *process / project*. Market research - both as a process and as a product with information content - can contribute to the expansion of *tacit knowledge*[7]. For example, participation in a research project may result in the marketing manager understanding what they may and may not expect from a market study or acquiring experience in formulating research questions - this mode of information utilization is not covered by any one of the instrumental, conceptual and symbolic dimensions.

Figure 2 : Relations between the dimensions of information use in the USER scale



Source: Menon and Wilcox (2001)

[7] The concept of tacit knowledge was coined by Hungarian philosopher Mihály Polányi. By tacit knowledge Polányi (962) meant hard-to-verbalize, intuitive, non-articulated knowledge.

The USER scale, which consists of 18 items or statements, identifies the following dimensions of information use:

i Congruous use

This dimension of use in consistent and *corresponds to the original intent of the study*. Related items suggest that the market research results have influenced some decision and that the decision maker relied on the results, or that the research was worth the money since its results had an effect on the decision.

This mode of information use is by definition equal to the dimension of instrumental use presented earlier.

ii Incongruous use

It stands for the *intentionally distorted* use of information. Items measure whether users intentionally distorted the results in order for the research to reflect the expected judgement, or whether the decision made was in line with the recommendations of the research, etc.

Menon and Wilcox (1994) interpret this mode of use as a subtype of the instrumental dimension - since decision making is affected. Yet this way of use and the instrumental dimension presented earlier as defined by Caplan, Morisson *et al.* (1975) do actually differ, as the interpretation of Caplan, Morisson *et al.* (1975) does not include the use of information intentionally pulled out of context - which, considering its content, rather belongs to the *symbolic* dimension.

iii Positive use

In this case, managers do not use the information because of its value but rather because it can *convey a positive* message. (e.g. enables the managers to emphasize the importance of some task to a certain group of people /shareholders, owners/; or executives use the information to attract attention or to achieve recognition for their performance.)

iv Cynical use

Cynical use of information occurs when managers only utilize a piece of information because they suppose the targeted audience to see some value in it, although they themselves do not. Items in this dimension measure for example

whether the purchase of a study was only backed by the need to comply with corporate decision making policies.

Menon and Wilcox (1994) links the latter two modes of use to the symbolic dimension. Menon and Wilcox (1994) again interprets and operationalizes symbolic use of information somewhat different than other researchers. Namely, former studies did not include items expressly relating to the positive and cynical uses introduced here - though these two modes are of special importance in the parent company-affiliate relations of Central Eastern Europe. Yet the constructs may be criticized for not being clearly distinguishable, for the lack of a definite borderline between these two dimensions.

v Knowledge-Enhancing Product-Based use

Market research (here, the expression „product-based" does not refer to the products of the company but to the informational product, to market research) *enhances market knowledge* of managers, an intra-company discussion about the exploration of new opportunities is started based on the results. Related items emphasize that the market research facilitated the identification of new opportunities, revealed a new aspect of some phenomenon to managers or helped them learn something new about the market.

This mode of use of information is by definition identical to the *conceptual* dimension as detailed earlier.

vi Knowledge-Enhancing Process-Based use

Here, market research provides managers with insight into the *research process*. All the items of this dimension of the USER-scale emphasize *learning* (e.g. lessons to be learnt from the process of defining the problem for the researcher).

This mode of use does not appear in empirical studies into the topic, either. One possible cause is that the traditionally applied instrumental, conceptual and symbolic dimensions relate to informational products (reports, databases, advises). Whereas market research may also be interpreted as a process or a project through which - during the *socialization* stage of the knowledge conversion process as described by knowledge management researcher Nonaka and Takeuchi (1995) - the market researcher shares his or her non-articulated (tacit) knowledge with the

marketing manager, who acquires non-articulated tacit knowledge by learning from the joint efforts.

Table 5 : Relationships between the USER-typology and the dimensions of information use traditionally applied in marketing - own approach

	Instrumental	Concep-tual	Symbolic
Congruous use	X		
Incongruous use			X
Positive use*			*X*
Cynical use*			*X*
Knowledge-enhancing product-based use		X	
Knowledge-enhancing process-based use**			

*: ambiguous assignment; **: can not be assigned

II.2.6. Effects of information use

In their study on market orientation, Jaworski and Kohli (1993) examined the relationship between the responsiveness of the company to information and its business performance. The concept of responsiveness is akin to that of information use. According to Jaworski and Kohli (1993), one form of response to information is their utilization in the development of various plans. Jaworski and Kohli (1993) claimed that responding to information does indirectly - through market orientation - contribute to *success in the market place* (more exactly: the study could not verify the existence of a relationship between market orientation and the market share of the company, but it could prove the connection between a more subjective judgement of the company's market performance and market orientation).

Sinkula (1994) looked into market information processing as related to the process of organizational learning, pointing out that the utilization of market information contributes to *organizational learning*.

Homburg and Karlhaus (1998) formulated the paradox that although researchers basically agree that there is a relationship between information use and the performance of a company, the majority of empirical studies concerned with the use of information does not investigate the effects of information use.

An exception to that is Moorman (1995), who analysed the *impact* of market information use on innovation, *on the launch of new products.* Her survey showed that the (instrumental and conceptual) use of market knowledge contributes to the

market *performance* of new products (which Moorman (1995) measured by the profits, sales values and market share achieved by the product in question).

Another research (Diamantopulos and Souchon 1995) explores whether there is a relationship between companies' export performance and their mode of use of export information. The study could not validate any significant connections.

The relationship between the managerial use of market information and the market performance of companies is obviously *not a direct* one. Several factors (e.g. company size, loyalty of customers, power relations in the market, etc.) may deter the positive consequences of (instrumental and conceptual) market information use, thus the relationship is very hard to quantify (Keszey 2002). Moorman (1995) could only succeed in validating the impact of information use on performance because use of information and performance had been measured as related to a specific project (product innovation), allowing the *control* of other factors affecting the relationship.

III. PRELIMINARY STUDIES FOR THE LARGE-SCALE QUANTITATIVE RESEARCH

III.1. Introduction to the Chapter

Prior to the large-scale quantitative research that serves as the basis of this dissertation two research projects have been carried out.

The first one was *a series of qualitative researches.* In 2002-2003 we asked marketing specialists who are related to market research through their jobs (market researchers, chief executives of market research firms, internal market researchers of companies, marketing managers) in the form of in-depth interviews about how they think information derived from market research is being utilized in the field of marketing management. We also wanted to know that in their views what sort of factors determine whether the results of marketing research are incorporated into marketing decisions.

Based on the information derived from the series of in-depth interviews, the preliminary study was intended to find answers for several questions:

- ✓ first, according to the opinions of Hungarian marketing specialist what kind of information utilization routines can be identified in companies' practice (page 43)
- ✓ second, how far these patterns of information use correspond to the dimensions defined – with the help of the application of predominantly quantitative tools – in texts related to the topic (page 47)
- ✓ third, based on the interviews can we get any closer to understanding why the examination of the phenomenon of information use is carried out on a smaller scale in quantitative than in qualitative research and whether several information utilization routines can be examined within a single model working with quantitative tools (page 49)
- ✓ fourth, what kind of methodological conclusions can be drawn from the in-depth interviews that could be applied during the large-scale quantitative research (page 51)

The aim of the second preliminary study is – based on the database of an OTKA research[8] carried out in 2001 – to answer the following question: to what extent do Hungarian companies apply market research and how could the group of market research-intensive companies be circumscribed.

According to the data of the PMSZ, companies spent HUF 9 billion on market research in Hungary in 2000 (Népszabadság, 5th of February, 2001.) The market research market, which produced a turnover of HUF 5.5 billion in 1996 was evolving dynamically during the past five years in Hungary, and this tendency is likely to continue.

Market research and consulting company, BMB Focus (2001) published a study based on in-depth interviews with 17 people[9]. According to this, the extent to which a company relies on market research depends primarily on the company's position on the Hungarian market. It is stated by the market research company that firms in monopolistic positions make use of market research to a smaller extent, while those working in more competitive environments apply market research more frequently. The highest demand is demonstrated by FMCG and telecommunications companies.

Although the volume of the market research market has increased, we only have a *small amount* of systematized information suitable for academic requirements about how the group of research-intensive companies can be characterized.

The second preliminary study – beside filling a gap in Hungarian special literature – contributes to the elaboration of the thesis by serving as a point of reference in the evaluation of the sample's composition.

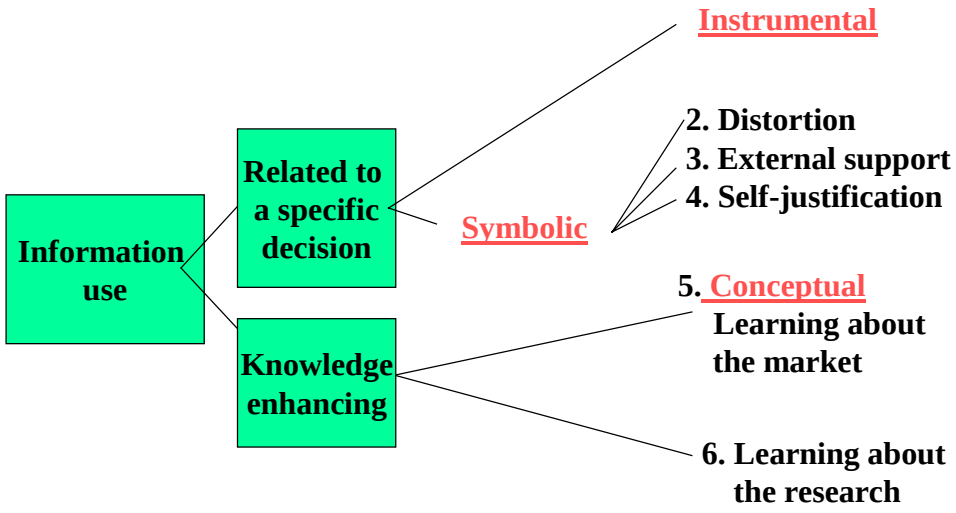
[8] 'Hungarian Companies' Approach, Strategy and Achievements in Marketing', OTKA research, topic number: T030028.

[9] The sample included the representatives of 8 sectors: (FMCG, media, advertising, IT-telecommunication, insurance, banking, car industry, pharmaceutical industry)

III.2. The First Preliminary Study: Qualitative Research Based on the series of In-depth Interviews

III.2.1. Dimensions of Information Use Identified on the Basis of the In-depth Interviews

Figure 3: Dimensions of information use that can be identified on the basis of the in-depth interviews of Hungarian marketing specialists and the connections between these dimensions



Similarly to Menon and Wilcox's (1994) scale (Figure 2, page 36), we also distinguished between ways of information use that are *related to a specific decision*, and those that are *knowledge-enhancing*.

In case of information use patterns that are *related to specific decisions* the user is consciously searching for relevant pieces of information, which are connected to situations, problems and issues that are easily definable. From traditional typology *symbolic* and *conceptual* dimensions of utilization can be related to this pattern of use.

In contrast to this, in case of *knowledge-enhancing* information utilization pieces of information derived from market research help marketing specialists to gain *knowledge* that is more abstract, more personal and can be treated with relative disregard towards the process of market research itself.

In the following part an overview will be provided on the dimensions of information utilization that have been identified in the in-depth interviews, then an attempt will be made to match these with the typologies presented above.

A „Instrumental use”

In case of this pattern the decision-maker leans on market research in order to be able to choose between alternatives or to solve a problem. So the executive has to face lack of information and the necessary data are acquired via market research. Information is used in accordance with the original/officially accepted aims of the market research.

‘We have recently made a decision about the kind of tariffs we should introduce based on market research.’ – ***Telecommunication company 1 – internal market researcher***

‘Basically we have made a decision about our style of communication with the help of market research. Also we defined our target group, and the style with which that target group could be convinced’ – ***Consumer bank – internal market researcher***

‘When a income forecast is required, that can only be based on research’ – ***Telecommunication company 2- internal market researcher***

‘market research can help us define tariffs or the types of parameters and info that are to be provided in connection to our services.’ – ***Telecommunication company 1 – internal market researcher***

‘There is a type of research that is related to a specific problem; one of our clients, for example, ordered a research because a certain product was not selling on the market. The company intended to find the reasons of this failure, and to solve the problem.’ – ***Market research company 2 – practicing market researcher***

This mode of use has been defined in the Use of Research Scale as *congruous*, and it is identical to the – traditionally applied – *instrumental* use of information.

B „Distortion use”

In case of this information utilization pattern the decision maker does not have to face lack of information. Information acquired from market research is seemingly used in connection with business-related issues. However, in fact, pieces of information are distorted, misinterpreted and cited without their context.

‘Distortion of data is not necessarily done on chief executive level. Sometimes product plans are drawn up in which market information has very little to do with research results.’- ***Telecommunication company 1 – internal market researcher***

'Data distortion is very common.. For example many issues have been raised during our research of ***internal*** *contentment. Nevertheless the presentation held for executives suggested that everything was all right.' –* ***Telecommunication company 1 – internal market researcher***

This mode of information use can also be found in the USER scale (incongruous dimension). In the USER scale, the statements that are used by Menon and Wilcox (1994) to measure this dimension suggest that the users have consciously modified the results so that the market research would reflect the opinion that is expected. Or the decision made in the issue examined by market research was not in accordance with the suggestions of the research itself.

C 'External support use'

In case of this mode of information use decision makers do not have to face lack of information, but a decision has to be made. The executives have no doubt about the decision but they need a reliable and widely-accepted supporter – for example a highly-regarded market research company or an advisor firm – in order to protect and represent their decision and interests.

'I have participated in a research at Company X that was related to the development of a new product. In this case the sales manager was familiar with the market and, in fact, the research was intended only to confirm his opinion'. – ***Market research company 2 – practicing market researcher***

'60% of ad-hoc market research spendings are aimed at trying to find supportive data for what I would like to do.'– ***FMCG, food products – brand-manager***

'We have to justify our decisions if they are not in accordance with the suggestions of the parent company.' – ***FMCG cosmetics - marketing director***

D 'Self-justification use'

In case of the self-justification utilization pattern the executive is consciously looking for information. In a professional sense there is no problem or issue to mention. The aim of information use is connected to personal interests (e.g.: demonstrating the importance of one's own department, the efficient use of financial resources or the expertise of the company, etc.) The information derived from market research can be used to improve the position of the company on the market or within their group of companies. It can also be used to help a department within a company, or it can provide an opportunity for the individual to climb higher in the hierarchy.

'A media agency, for example, has bought a research just to demonstrate its competence to its clients.' . – ***Market research company 2 – practicing market researcher***

„On the other hand, regional and international attitudes are, in many cases, much more important (when buying a market research). That is, to demonstrate outwards what the situation is like in your firm. – ***FMCG, food products – brand-manager***

'…self-justification about our own efficiency is very useful, towards the management, anyway. It shows them that we spend the money here,but not in vain.' – ***Consumer bank– internal market researcher***

'It sometimes happens that someone needs a nice, colorful figure for a presentation. The only concern in these cases is that the graph (showing data about market research) has to indicate a positive tendency, nothing else matters.' – ***Telecommunication company 1 – internal market researcher***

'But if the result (of the market research) had shown what I wanted to see, I would have been so happy, and I would have been showing off with the results.' – ***FMCG cosmetics - marketing director***

E 'Learning about the market use' (Conceptual)

As a result of market research, company managers' knowledge about the market will increase. Connected to the results of market research a conversation will begin within the company about the exploration of new opportunities. Essentially the conceptual dimension describes this mode of information use. Scale items related to this utilization pattern emphasize that market research promoted the discovery of new opportunities. It helped managers look at a phenomenon from a different angle or to learn something about the market. So in this case there is no conscious search for information. Information shapes managers' views about the market 'by stealth'.

'..classic example: when someone is making a continuous research. One could learn from these researches. This is often missing, because we live from one day to another; this is my bonus. Far-reaching researches are often abandoned without drawing important conclusions.' – **Market research company *1 – chief executive***

'another useful factor (in learning from the market) is that even among market research agencies you may find professionals, and the point of making a research is obvious to them. They are glad to help you with using the data, if there is demand for that. On many occasions the market research agency comes to the company after a research is finished, and then we sit down to interpret what we have and try to draw the conclusions together.' – ***FMCG, food products – brand- manager, former internal market researcher***

'So, well, another thing that makes a good research is that if it generates at least as many questions as we have raised for the first time' - ***Telecommunication company 2 – internal market researcher***

F ‘Learning about the research use’

As a result of the market research the user can create a more accurate picture of the research process. The market research contributes to the increase in the managers’ knowledge as a process or a project, not as a product. (during the market research executives can gather experience in phrasing research questions).

‘The knowledge of brand managers is empirical. They do not have to understand t-tests and F-tests. Statistics is not the point, knowing what to expect from a research is. In this field experience matters. Such clients are much easier to work with.’ – ***Market research company 1 – chief executive***

‘It is a part of market research culture that people in the marketing department know how to use the research. They have to know what their role is and that the research in itself does not solve the problem, although it helps orientation.’ – **Market research company *1 – chief executive***

‘It is a common problem that our clients are unable to phrase a specific research question, and that they expect market research to solve their problems. Another usual difficulty is that the companies would like to cover every aspect with just one research, instead of concentrating on a few relevant factors…There are major differences between certain industries, some do a lot of research and this allows you to come up with more complicated things’. – ***Market research company 2 – practicing market researcher***

‘Product managers are unable to adapt to a researcher’s thinking and this makes it difficult to do research. It is not enough to state that the target group of the research is the company market. I could do a research for 4 months, if I took that seriously. Research experience is important.’ ***Telecommunication company 1 – internal market researcher***

‘So, in my opinion market research in our company is effective because in the last 2 or 3 years we have been working with clients with research experience. And I think this facilitates communication on one hand, and on the other hand, it produces much more accurate, more precise results. So we probably would not accept research results that a company with less experience would accept’. - ***Telecommunication company 2 – internal market researcher***

III.2.2. Comparison of the dimensions of information utilization identified in the in-depth interview-series and defined in the traditional and in the USER scale

A table was drawn in order to have a systematic comparison of the dimensions of use presented in the previous chapters. In this table these dimensions are characterised with the help of three attributes (correctness of the interpretation of information, the presence of a decisional situation and lack of information) that are handled as dichotomous to simplify things a little. Pieces of knowledge-enhancing information are not presented in the table, only direct methods of information utilization are.

Table 6.: Comparison of the dimensions of information utilization traditionally applied in marketing texts and identified in the USER-scale or in the series of in-depth interviews

Dimensions of information utilization	Research attributes		
	Correctness of information interpretation	Real decisional situation	Lack of information
Traditionally applied dimensions of information utilization			
Instrumental	+	+	+
Symbolic	+/-	+/-	-
Dimensions of information utilization identified in the USER scale			
Congruous (1.)	+	+	+
Incongruous(2.)	-	+	-
Positive (3.)	+	-	-
Cynical(4.)	+	-	-
Dimensions of information utilization as identified on the bases of in-depth interviews			
Instrumental	+	+	+
Symbolic:			
Distortion (2.)	-	+/-	-
External support (3.)	+	+	-
Self-justification (4.)	+	-	-

Although Caplan, Morisson *et al.* (1975) in the definition of *instrumental* information use named its connection to a specific *decision* as its most important attribute, all subsequent researches in the field of marketing operationalized this kind of information use by stating that the information use is correct and congruent with the original aims, and that the information is gathered with the intention of decreasing the uncertainty in connection with the decision. The information use, therefore, can only be called instrumental if all of the three attributes examined in our table are given.

In accordance with this, the correctness of Menon and Wilcox (1994)'s idea to link the incongruous use of information to the instrumental utilization of information in the USER scale, seems questionable.

The definition of *symbolic* information use that was first phrased by Weiss and Bucuvalas (1977) – the information serves political goals, or it is to legitimize decisions that have already been made – provides a quite wide frame of interpretation. The phrase 'symbolic' itself – which might not be the best choice, due to different connotations – refers to the 'apparent' (seems as if) use of information. Shannon and Weaver (1949) determines the value of a piece of information on the

bases of the extent to which it decreases decision-related uncertainty. The symbolic use of information is, in fact – taking Shannon and Weaver's (1949) definition further – 'void of value', because the information is utilized in a situation in which the executive does not have to face any real decision-related uncertainty. In case of the symbolic use of information only one has to be satisfied from among the three attributes examined in the table. The executive has to use the information in a situation where there is no lack of information.

The value of Menon and Wilcox (1994)'s scale for marketing researchers lies in the fact that it provides an opportunity for the measurement of symbolic information utilization routines that appear in connection to market research. From Table 6. (page 48) it is also obvious that – on the bases of the three attributes we examined – cynical and positive patterns of information use, identified in the USER scale, cannot be unambiguously distinguished.

Instrumenal information use has also been successfully identified on the basis of the in-depth interview series. Like Menon and Wilcox (1994), we have also identified several methods of symbolic information use. The cynical and positive information uses Menon and Wilcox (1994) described appeared in our study, too. We call this dimension self-justification. The dimension of external support is not included in Menon and Wilcox (1994)'s scale, however, based on the in-depth interviews, the independent external support role of market researchers in the parent company – affiliate relationship is unquestionable.

The dimension of distortion was accepted to be independent on the basis of the in-depth interviews, but it requires further examination to explore whether taking information out of its context, or the misinterpretation of information can, in fact, be considered as a separate method of information use or we should rather give priority to the aim of information utilization (e.g. external support, self-justification) and within these cases, examine the extent to which the information is distorted.

III.2.3. Can the phenomenon of information utilization be thoroughly examined within a model operating with quantitative tools?

As it is obvious from Table 3. (page 33), in quantitative research carried out with the help of multivariate statistical methods the examination of the phenomenon

of market information utilization by executives is not complete or thorough. Most of the examinations (Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; Deshpandé and Zaltman 1984; Lee, Acito *et al.* 1987; Moorman, Zaltman *et al.* 1992; Moorman, Deshpandé *et al.* 1993; Lee, Lindquist *et al.* 1997; Low and Mohr 2001) concentrate exclusively on instrumental use of information. Only a few researches can be found (e.g.: Moorman 1995; Maltz 2000/a; Maltz, Souder *et al.* 2001) in which – besides the instrumental use – the conceptual dimension is included. In related literature, Diamantopulos and Souchon 1998) examined all three dimensions of information utilization but that research was not quantitative but qualitative, based on in-depth interviews.

Some questions have to be answered. Why wasn't this phenomenon examined thoroughly in former researches? To what extent does this fact limit the studies that we have referred to? Can all the pieces of information be examined within a single model?

Researchers relate differently to these issues. Homburg and Karlhaus (1998) say that a deeper understanding of the phenomenon is prevented by the limited focus of the examination of information utilization[10]. In contrast to this Troilo (2001) thinks that while instrumental and conceptual information use are linked to the field of marketing management, the phenomenon of symbolic information utilization – which deals with questions like 'What kind of role does market research play in contact building or in subsequent justification of decisions?' – is not included in the discipline of marketing and therefore it is more suited to be dealt with in a study of organizational sociology. We share Troilo's (2001) view in our research, that is to say, we do not consider it to be a limiting factor that we primarily concentrate on the instrumental and conceptual uses of information in our model. In the field of marketing management these are the most relevant patterns. Nevertheless, in order to create a more complex picture of the phenomenon, it is important to discuss additional dimensions of information use that have been introduced in the chapter in detail.

[10] Homburg and Karlhaus (1998)'s opinion is put down in a working paper published on an EMAC (European Marketing Academy) conference. In this publication (Homburg and Karlhaus 1998) outlines a model in which – by filling the gap in the research – all three information utilization methods are examined at the same time. The result of the research, however, as far as I know – we have contacted Mannheim University via e-mail in order to gain information from the authors about the results, but our attempt was unsuccessful – have never been published and thus we do not have information concerning whether the research has been carried out, and if it has what were the results.

In our view, the incomplete examination of information utilization is justified – apart from relevance for marketing management – by *methodological* concerns. We assume that symbolic information use is influenced by factors that are different from those affecting instrumental and conceptual information utilization patterns. On the other hand, the factors influencing the latter two types are similar and therefore can be examined within a single model. This view is accepted by Homburg and Karlhaus 1998) and the conclusions of the in-depth interviews also support this opinion[11].

III.2.4. Methodological conclusions that have been drawn from the qualitative research and can be applied in the large-scale survey

Those methodological conclusions derived from the in-depth interview series that can be applied in the large-scale survey are primarily related to identifying the *'key informants'*:

- ✓ in companies where marketing is constructed according to the brand manager system it is practical to ask brand-managers.
- ✓ in case of companies that include several divisions it is practical to identify the division as a sampling unit, instead of the company.

The in-depth interview series was limited to large-scale companies that have a well-developed routine of marketing, and do a lot of advertising, therefore our conclusions are relevant for this kind of companies. During the qualitative research we concentrated on companies that do a lot of advertising, because most researches in the field of marketing information systems operationalize well-developed marketing routine with advertisement spendings. That is how the researchers identify the group of companies in which market research plays a major role in acquiring information about the market. These researches also tell us that companies applying the brand manager system are over-represented in the sample.

Based on the experience of the in-depth interviews, it can be stated that the marketing manager of the company or the leader of the division are usually not the most competent people in the utilization of the marketing information system, for

[11] The more a manager trusts the information source the more extensive the *instrumental* and *conceptual* uses of information will be. This thesis can be verified, but it is senseless in case of the *symbolic* information utilization.

example in that of market research or IT applications. In the interviews brand managers and marketing middle managers used market research and marketing IT applications much more extensively than top managers did[12]. The phenomenon we observed is described by several researchers. According to Spence and Brucks (1997)'s results IT applications related to marketing were mainly applied by junior marketing decision makers. In fact, in case of senior marketing decision makers Spence and Brucks (1997) question the usefulness of IT applications supporting marketing management activity. According to the research results of Wierenga and Bruggen (2000), there is an inverse relationship between the application of marketing information systems and job experience: the more experience decision makers have, the less they will lean on IT applications.

Based on the lessons learned during the in-depth interview series, in case of those companies that are comprised of several divisions and strategic business units, it is more practical to identify the division as the sampling unit instead of the company itself. From among the four companies that have been examined through case studies within the in-depth interview series three were comprised of more than one divisions. Those interviewees who had some sort of base for comparison in connection to divisions other than their own – for example who had worked in or co-operated with other divisions – all referred to division-specific differences.[13]

III.2.5. Methodology applied during the qualitative research

A Subjects of the in-depth interviews

Marketing experts quoted in the study have been interviewed in *two waves*. The *first wave* was intended to help understand the way market researches are utilized by the companies. On the other hand, in the *second wave*, carried out within

[12] At one of the companies included in our qualitative research the sales manager said that 'this is not a database type company', while at the same firm one of the middle managers, who – among other things – deals with the analysis of databases, told us that they use several databases continuously in their work. In case of another company involved in the qualitative research we have had similar experience. The division manager said: 'I have the marketing information system installed to my computer, but I don't even know how to access it.' On the other hand, according to the brand manager, information systems play a very important role in marketing.

[13] One of the interviewees told us that at the other division of the company market research is less significant than at this division, because the branch manager believes it to be unimportant. At another firm the interviewee justified the differences in the significance of marketing information systems with the differences between the markets of operation (organizational B2B as opposed to consumer B2C).

the framework of our OTKA research, we have thoroughly assessed the marketing information system – including market research – of 4 companies (a telecommunication firm, 2 FMCG companies and a bank) of our choice. In the two waves of survey altogether 22 in-depth interviews have been made, each of these is approximately 1 hour long. This study is founded on eight in-depth interviews, the subject of which has been market research.

Table 7.: Marketing experts involved in the in-depth interview series

Sector	Scope of activities and function
FMCG	Food Products: brand manager Cosmetics: marketing leader
Market research	Market research firm 1: top manager Market research firm 2: practicing market researcher
IT, telecommunications	Telecommunications company 1: internal market researcher Telecommunications company 2: iternal market researcher marketing leader
Bank	Consumer bank internal market researcher

When choosing the *companies* using market research our aim was to pick the representatives of industries which *traditionally spend a lot* on market research, which have routine and experience in this field and also a well-developed 'market research culture'. Our *interviewees* are linked to the phenomenon of market research in a variety of ways as they see it from *different spheres of action* (practicing market researcher, chief executive at a market research agency, brand manager, internal market researcher).

B Data collection

We have established formal contacts with the subjects of the interviews made within the framework of the OTKA research. We sent a letter to the head of the company in which we were asking for co-operation in the research and an opportunity to get familiar with the firm's marketing information system. The rest of the in-depth interviews were realized via an informal net of contacts (e.g.: classmate at university, former student, colleague in our department, etc.). In case of these

companies we were unable to get acquainted with the whole of the marketing information system. We only managed to collect isolated pieces of information.

The data collection has been carried out with *in-depth interview* techniques in each of the cases. The interviews were based on an 'interview guide' which was abandoned when necessary. The interviews were typically one-hour long and were made at the work-place of the interviewees, in conference rooms.
Where it was possible we used a tape to record the interviews and these recordings were transcripted afterwards, word by word.

C Data processing

The first step in processing the proceedings of the in-depth interviews was to select those which were expressly related to the utilization of market researches. Afterwards, we attempted to create key categories, that is to identify relationships, similarities and patterns between the differing opinions of the professionals in different positions. As a result, we could identify some modes of information use the presence of which in business practice was agreed to by professionals from different companies, in different relations with market research.

The step following the identification of the key categories was to assess the relations between the modes of use identified as based on Hungarian professionals' views and the dimensions applied in international literature.

D Reliability and validity, limitations of the qualitative survey

One of the limitations of the study is related to the number of interviews. Even though the only qualitative study on market information use published in international marketing literature (Diamantopulos and Souchon 1995) is as well based on only 12 in-depth interviews (examining not only the use of a single informational product - market research – but also that of other market information amongst British export companies), and that it does not provide guidance on how to determine the optimal number of in-depth interviews, an increase in the number of interviews and the extension of the scope of the study may act to enhance the validity of our study.

We have only interviewed marketing professionals from multinational companies with developed market research cultures. In the interviews, there were indications that multinational and Hungarian companies are characterized by

different patterns of information use. The completion of a survey amongst marketing managers from companies in Hungarian ownership should be considered, too. It is possible, however, that the same modes of information use are present at Hungarian firms, yet in different proportions. Nevertheless, the *validity* of the study could be enhanced by surveying „atypical" corporations that perform researches only rarely.

The validity of the study is enhanced by the fact that it tries to illuminate the topic with the help of professionals, key informants viewing the topic from different perspectives (practicing market researcher, top manager at market research firm, marketing executive, brand manager, internal market researcher, etc.)

Validity could be further enhanced by the analysis of data sources other than interviews (e.g. the market studies in question), yet the nature of the co-operation and the topic did not allow that. There were limited opportunities to make further appointments with the respondents. (This happened only once /Telecommunications company 1 – internal market researcher/ when the interviewee got so interested in the topic that he proposed to go on with the interview at a later appointment himself.)

A more comprehensive understanding of the relations of information use and an enhanced internal validity could have been achieved by dyad- / triade-type surveys (querying internal market researchers, external market researchers and managers working on the same project) or by applying the critical incident method, that is examining the utilization of one given (e.g. the last, the most expensive, etc.) market research.

The methodology of data collection: a uniform line of thought for all interviews, audio-recording and verbatim transcription all act to increase reliability.
It would have been more practical to involve several (at least three) researchers in the coding of the interview proceedings and in the identification of information utilization routines relevant to the study. This not being possible, I performed the coding of interview proceedings several times.

III.3. Second preliminary study: Market research overview – how much do Hungarian companies rely on market research and what are the characteristics of „research-intensive" enterprises?

III.3.1. Use of market research amongst Hungarian companies in 2001

Berács, Keszey *et al.* (2001), in a 2001 OTKA study[14], used a five-point Likert scale with a single item[15] to measure how much Hungarian companies rely on market research.

Table 8 : Basic statistics of market research use amongst Hungarian companies and Hungarian large-scale companies in 2001

	Hungarian companies	Large-scale companies
Mean	2.60	3.08
Median	3.00	3.00
Mode	2.00	3.00
Standard deviation	0.90	0.76
Minimum	1	2
Maximum	5	5
Range	4	3
Valid sample	549	45
Missing elements	23	1

The above basic statistics show that Hungarian companies are not or less characterized by the extensive use of marketing research. Their most frequent answer (mode) was that the application of market research in marketing activities is not characteristic for them.

Hungarian *large-scale enterprises*[16] tend to make a more extensive use of market research. The most frequent answer concerning the extensive use of market research was sometimes characteristic, the value of average use is higher than in the

[14] The population of the research was made up of the business enterprises with more than 20 people, irrespective of their legal form and ownership. The planned sample – constituted of 3000 companies – represented the Hungarian proportions published by KSH (Hungarian Central Statistical Office) considering the number of employees and the sector of operation; finally, 572 executives filled in the questionnaire.

[15] Wording of the item in the questionnaire: „Marketing research is extensively applied at our company" 1: not at all characteristic - 5: very characteristic.

[16] Large-scale enterprises were operationalized through a yearly sales revenue above HUF 4 billion.

total sample, and we should mention that no one of the companies in this group answered that the use of marketing research is not at all characteristic for them.

Table 9 : Distribution of Hungarian companies and Hungarian large-scale companies by their use of market research in 2001

	Hungarian companies		Large-scale companies	
Market research is extensively applied at our company	Frequency	Valid % distribution	Frequency	Valid % distribution
Not at all characteristic	51	9.3	0	0.0
Not characteristic	215	39.2	12	25.0
Sometimes characteristic	192	35.0	22	45.8
Characteristic	83	15.1	13	27.1
Very characteristic	8	1.5	1	2.1
Total	549	100	48	100
Does not know / No response	23		1	
Total	572		49	

The distribution (Table 9) shows that the extensive use of market research is characteristic or very characteristic for only 16.5 (15.5+1.5) percent of Hungarian companies. On the contrary, 48.5 (39.2+9.3) percent do not or not at all apply market research. The use of this tool in marketing activities is sometimes characteristic for 35 percent of the respondents.

Examining the value of the variable for large-scale enterprises in the research database of Berács, Keszey *et al.* (2001), we can conclude that 29.2 (2.1+27.1) percent of large-scale enterprises make extensive use of market research, while here, the proportion of companies not or not at all applying market research only amounts to 25 percent. The use of this tool in marketing activities is sometimes characteristic for 45.8 percent of the large-scale enterprises.

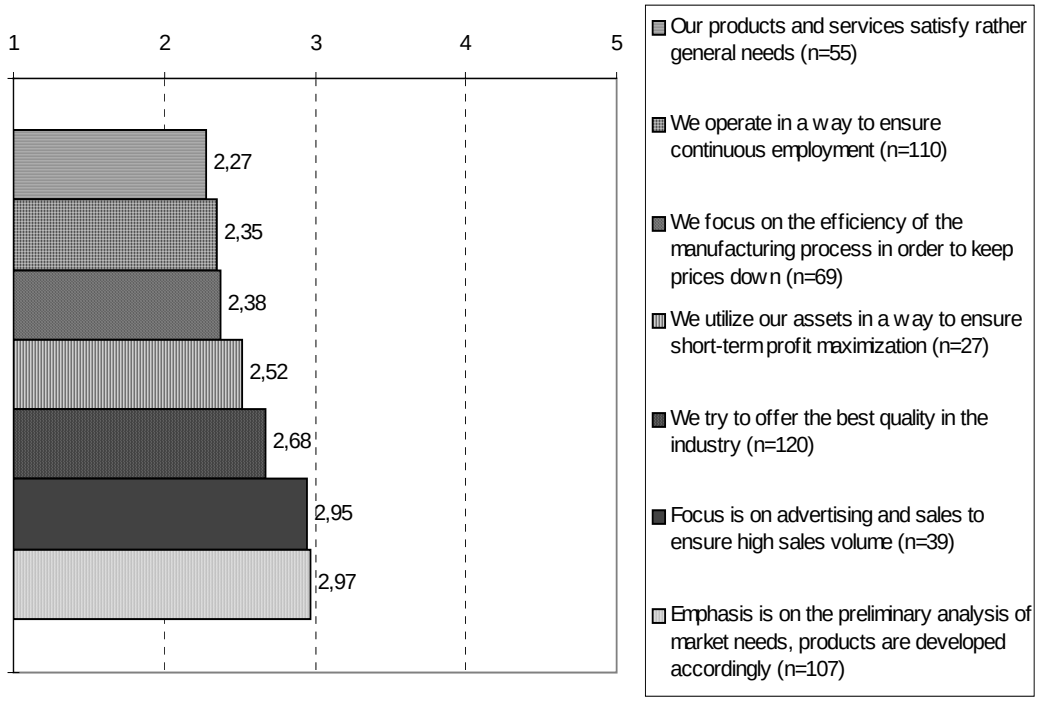
III.3.2. What kind of companies do apply market research?

Based on the analysis of the database from 2001, market research plays a different role in the marketing routine of companies with different 1.) business approach, 2.) strategic objectives, 3.) organization structure, 4.) number of employees and 5.) ownership structure.

A Differences by business approach

In the study, we looked into the differences in the application of marketing research of companies with different business approaches. The ANOVA analysis indicated that our findings are statistically significant (p=0.000), having homogeneity of variances.

Figure 4 : Differences in market research use by business approach



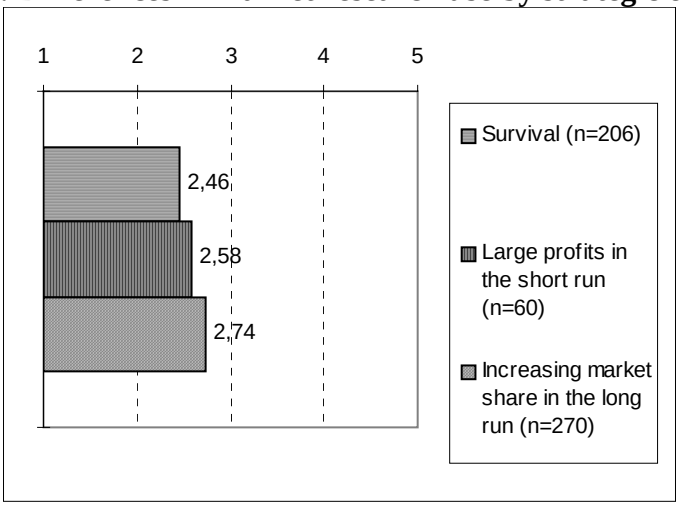
In line with one's expectations, market research is most extensively used (mean: 2.97) by companies which emphasize the *preliminary analysis of market needs* during product development and improvement (market-oriented companies). The extent of market research use is above the *grand mean (2.60)* for sales-oriented companies and for firms where quality is in the forefront.

Altogether, we may conclude that market- and sales-oriented companies are the ones to rely on market research most. In their business approach, focus is on the market aspects (e.g. market sales, quality above competitors, proactive satisfaction of consumer wants). The market research use of firms emphasizing intra-company attributes (like low price, continuous employment) in their business approach is around the mean. Enterprises focusing on non-market aspects (e.g. satisfying general /not consumer-specific/ needs) are characterized by a below-average use of market research.

B Differences by strategic objectives

We also examined the differences related to marketing research at companies with different strategic objectives. Results suggested that firms with differing strategic objectives apply marketing research in significantly ($p<0.01$) different extent. Companies fighting for survival are unable to put efforts into marketing research, thus their relative lag continues to grow. Here, we have to mention that Berács, Keszey *et al.* (2002, 2003) found similar relationships for the application of e-business solutions. However, enterprises aiming at a long-term increase in market share are willing to spend on activities which will make profits only in the future.

Figure 5 : Differences in market research use by strategic objectives



C Differences by organizational structure

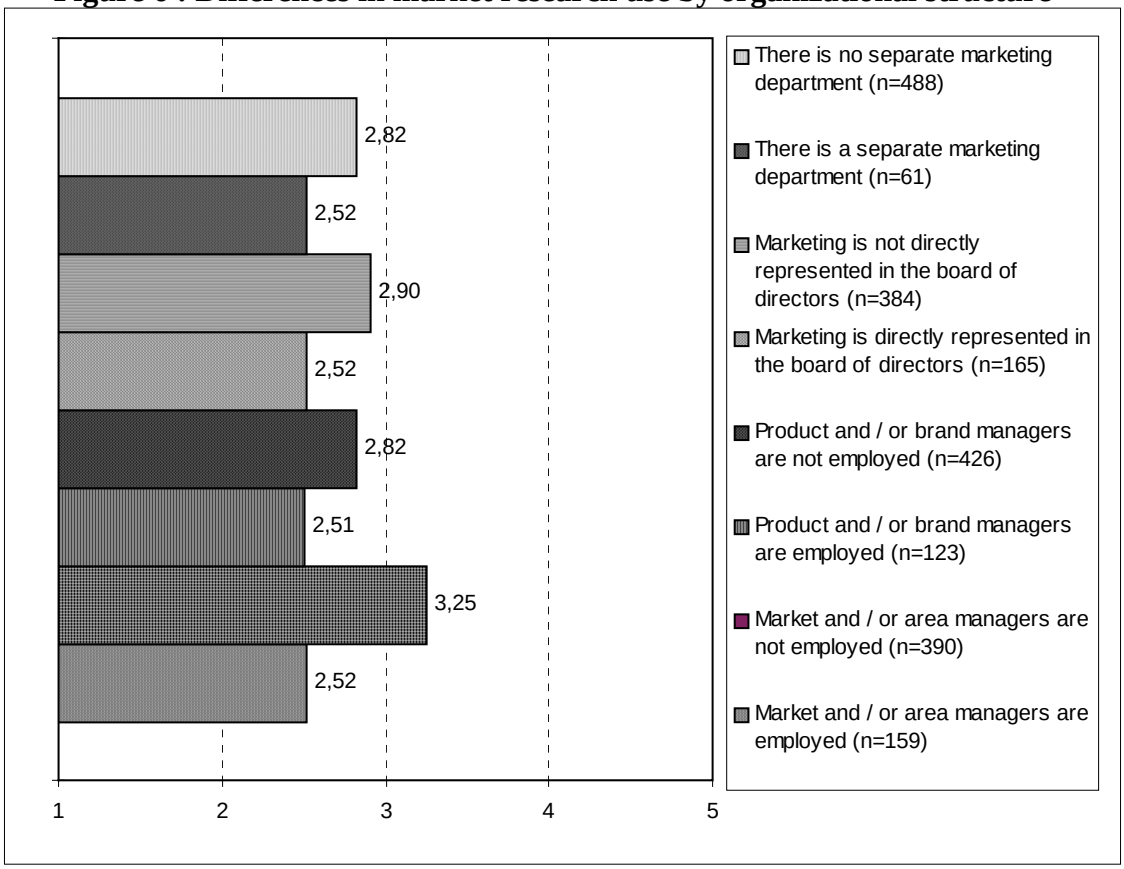
Differences in the application of marketing research were also analysed as related to the differing structure of marketing organizations. Variance analysis evinced that there are significant differences between the market and / or area manager system ($p<0.01$), the product and / or brand manager system ($p<0.01$), the representation of marketing in the board of directors ($p<0.01$) and the existence of an independent marketing department ($p<0.001$).

Companies which organize their marketing activities with the help of:

- ✓ market and / or area managers, or
- ✓ brand and / or product managers, or where the
- ✓ function of marketing is directly represented in the board of directors, or where there is
- ✓ an independent marketing organization

rely on market research to an above-mean extent, while other firms with different structures perform below the average.

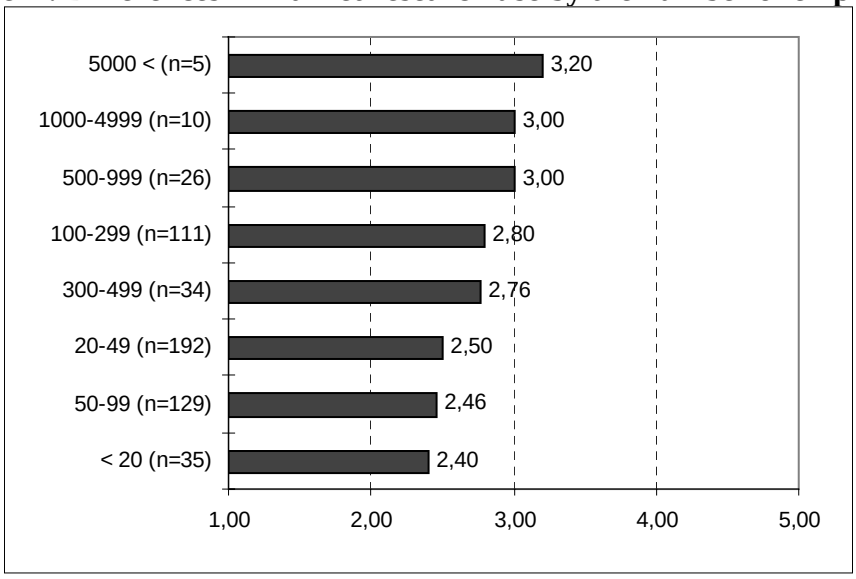
Figure 6 : Differences in market research use by organizational structure



D Differences by the number of employees

The analysis of market research as related to the number of employees also revealed a significant (p=0.000) relationship.

Figure 7 : Differences in market research use by the number of employees

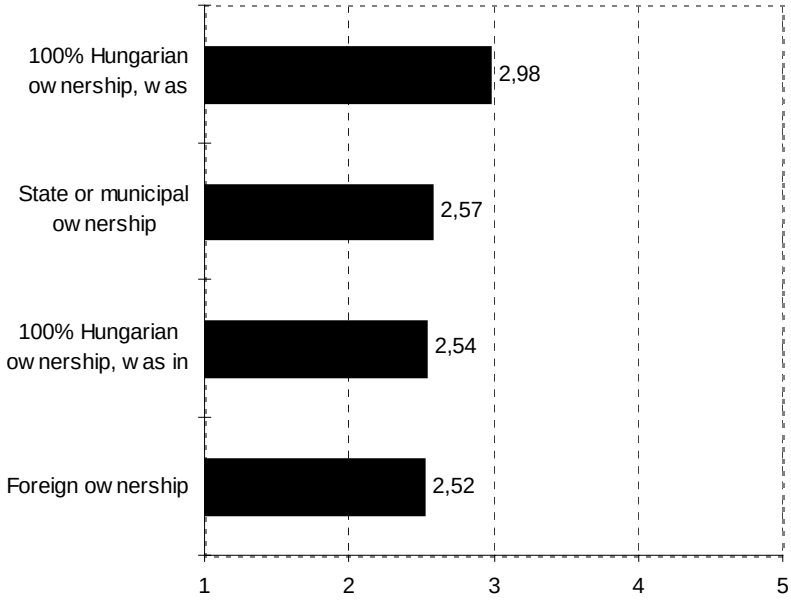


The figure shows that larger companies with more employees tend to rely more on market research than smaller firms. The use of market research is most extensive at enterprises with more than 5000 people, and least extensive at those with less than 20 employees. All categories above 100 employees rely on market research to an extent above the mean (2.60).

E Differences by ownership structure

The examination of market research as related to ownership structure revealed a significant ($p<0.001$) relationship.

Figure 8 : Differences in market research use by ownership structure

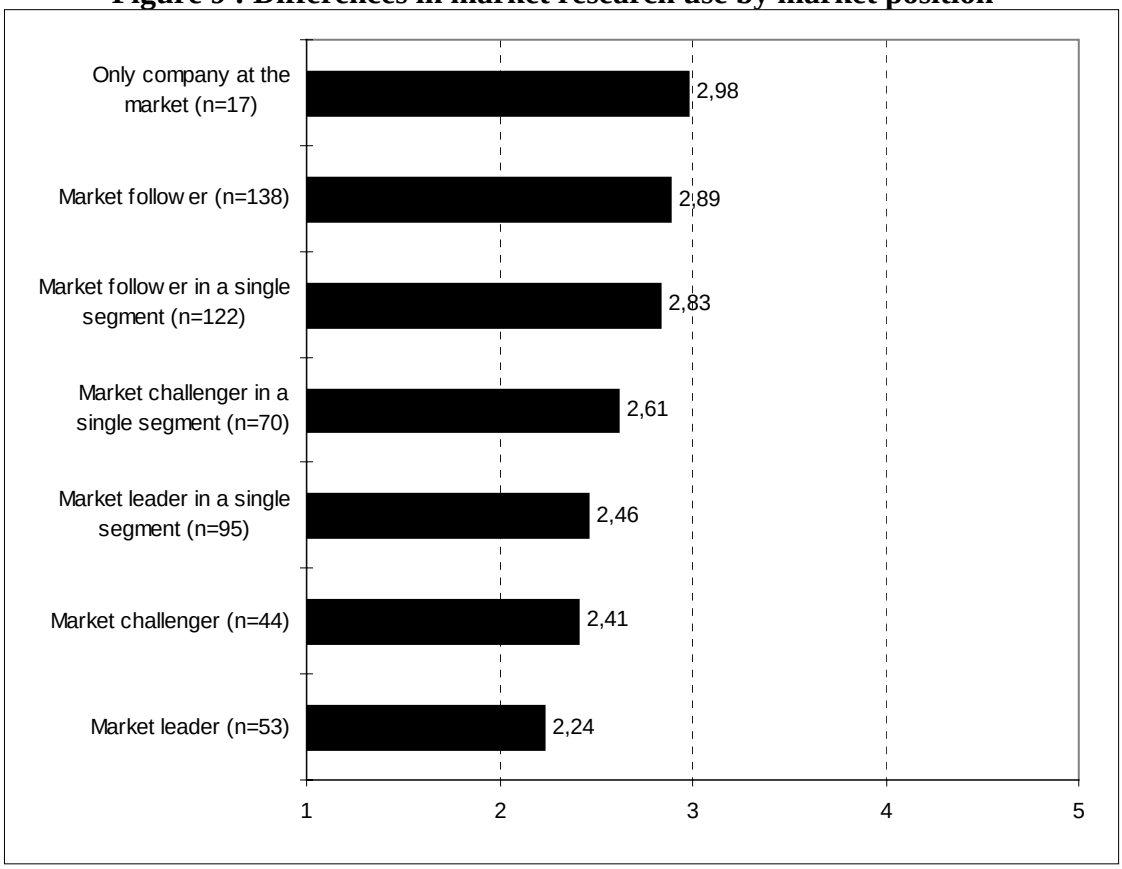


Our results show that companies owned by foreign investors apply market research in their marketing activities more extensively than the mean, while firms in 100% Hungarian ownership and in state of municipal ownership rely on market research to the mean extent.

F Differences by market position

The analysis of the relationship between market research use and the market position of the company also revealed significant ($p<0.001$) differences.

Figure 9 : Differences in market research use by market position



Results show that market research is relied on to an extent above the mean by market leaders (highest market share) and market challengers (second or third highest market share). Market leaders and market challengers present in every segment make a more extensive use of market research than the ones operating in only one segment.

The importance of market research is below the mean for market followers, and the lowest value is produced by monopolies.

G Other study aspects

Potential differences were investigated by the sector of operation (agriculture, building industry, transportation, wholesale commerce, retail commerce, financial services, mining, processing industry, telecommunication, broadcasting, other services, others) and the type of the market (durable consumer goods, fast moving consumer goods, materials and components, industrial capital equipment, industrial services, consumer services, others), but no significant relationships could be found.

IV. THE RESEARCH MODEL

IV.1. Introduction to the chapter

The main research question is: *What are the factors affecting the managerial use of information from commissioned market research projects.*

Our study focuses on two dimensions of information use: *instrumental* and *conceptual* uses. By investigating the modes of action of two dimensions of information use, we can achieve more than any previous research into the utilization of market studies (Deshpandé and Zaltman 1982/a, 1982/b, 1984, 1987; Lee, Acito *et al.* 1987; Moorman, Zaltman *et al.* 1992; 1993), this one being the first study analysing not only the instrumental but also the conceptual use of market researches within a single model.

This chapter first introduces the structure of the research model, and later on, we are going to define the constructs and formulate the hypotheses of the model.

IV.2. The research model

Besides the instrumental and conceptual uses of information, based on previous studies on the topic, the two constructs of *trust*[17] in the market researcher and *perceived quality of information*[18] have been taken out of the group of independent variables. The reason behind is that these factors are not direct antecedent variables of information use, but rather behave like *mediator variables* between use of information and its antecedent (or independent) variables. Accordingly, our model considers four dependent variables and after having formulated the hypotheses, we are going to analyse four regression equations.

---

[17] In their studies on the use of market research information - according to our present knowledge - no researcher could verify a *direct* relationship between trust in the market researcher and the utilization of information. Nevertheless a number of authors, agreeing that the phenomenon plays an important role in understanding the use of market knowledge, analysed trust between the supplier and the user of information and did actually detect an *indirect* relationship. The model of Moorman, Deshpandé *et al.* (1993) contains trust as a mediator variable through which - and only through which - independent variables can affect the use of information. Maltz and Kohli (1996) also treats the construct of trust in the information supplier as a mediator variable instead of an independent one.

[18] As illustrated by the following citation, the perceived quality of information must as well be treated as a mediator variable:

„... information quality..., rather than acting as a direct antecedent to information use, may act as a mediator between other antecedents - information use"

Source: Low and Mohr (2001): 86.

Independent variables include information-related, organizational and interpersonal (research project-related) factors. Our presumption is that some of them affect information use directly, while some others have an indirect impact, as well (through the mediator variables).

Figure 11 (page 70) shows the hypotheses, formulated based on professional literature of the topic and the conclusions of the in-depth interview series.

Figure 10 : The research model - main relations

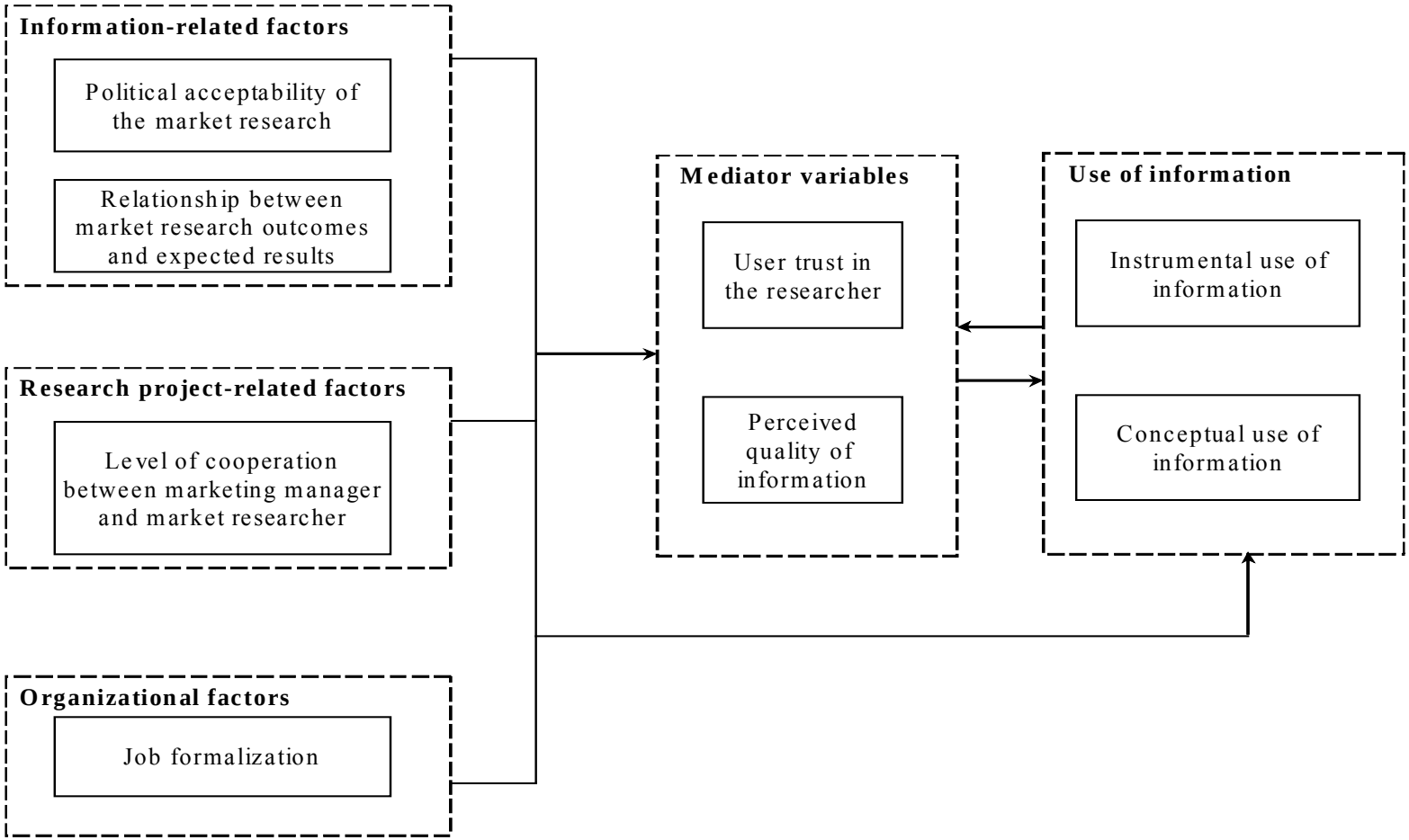
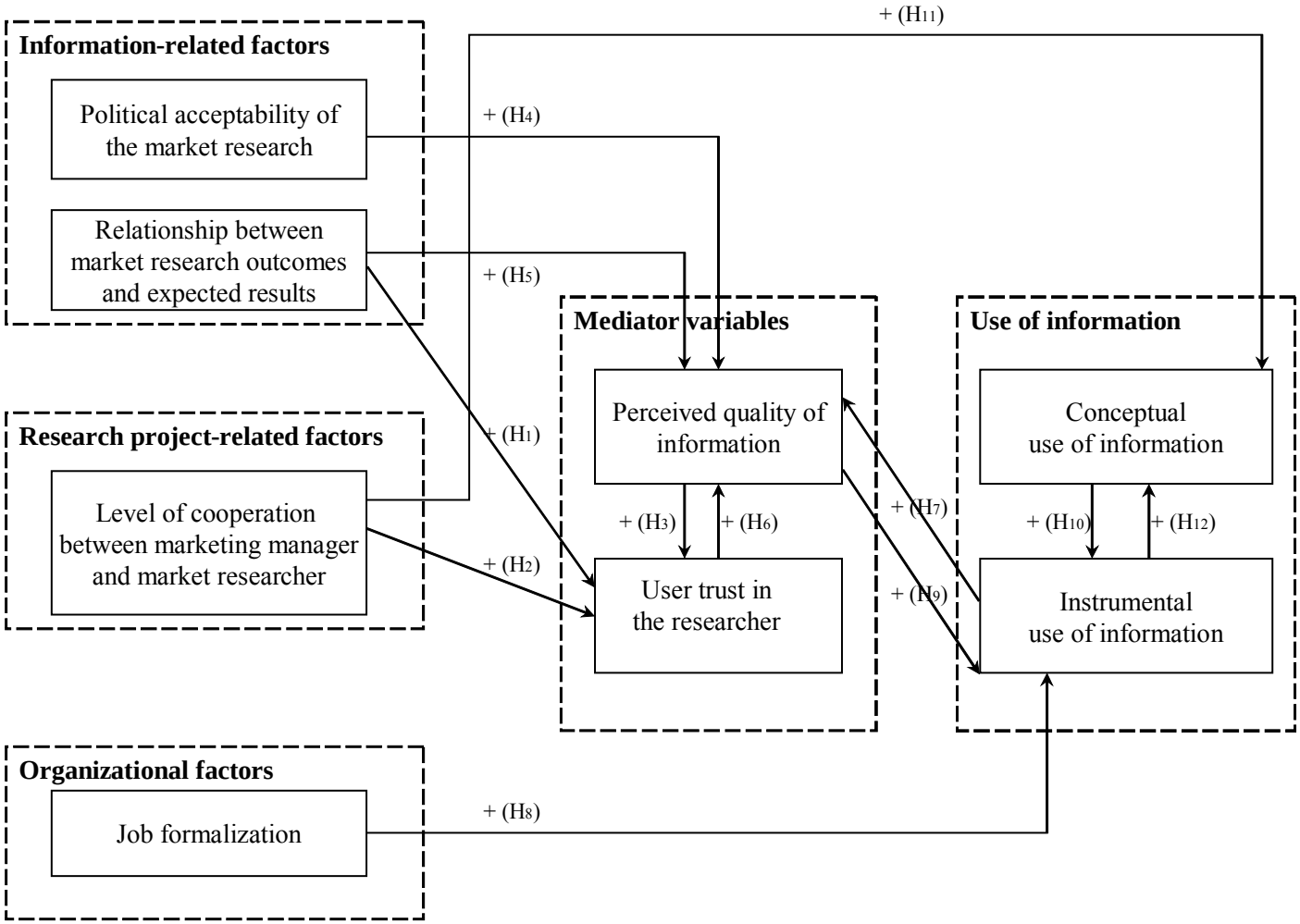


Figure 11 : The research model - all hypotheses



IV.3. Definitions of the constructs in the model

IV.3.1. Dependent variables

A User trust in the researcher (F_TRUS)

Based on the approach of Moorman, Zaltman *et al.* (1992), we operationalize *user trust in the researcher* through two components. On the one hand, trust is related to the *professional skills* and reliability of the partner and on the other hand to the positive expectations and presumptions about their responsible, helpful and co-operative *behavior*.

B Perceived research quality (F_RQ)

After the definition of Deshpandé and Zaltman (1982/a); Gupta and Wilemon (1988); and Maltz and Kohli (1996), by perceived research quality we mean how accurate, comprehensible, relevant and perspicuous the information supplied is in the eyes of the manager.

C Instrumental use of information (F_INSTR)

By the instrumental use of information, as formulated by Caplan, Morisson *et al.* (1975), the use of market research information directly in *solving* a well-defined *problem* is meant. Thus market knowledge, the results of market research heavily influence the outcome of decision making in some existing management problem. For details on the instrumental use of information, please page 32.

D Conceptual use of information (F_CONC)

The conceptual use of information - as put forward by Beyer and Trice (1982) - stands for the utilization of market studies as background information in achieving in-depth understanding of some issue. In the case of conceptual information use, the marketing executive learns from the market with the help of the research, they acquire rather abstract knowledge beyond the factual statements of the research report. The study drives managers to thoughtfully consider the profound relations of some phenomenon. For details on the conceptual use of information, please see page 32.

IV.3.2. Independent variables

A Information-related factors

a Political acceptability of market research results (F_PA)

By the construct of *political acceptability of the research* we mean that the factual statements and the recommendations of the market study do not cause discomfort or difficulties to any persons or groups in the company (Deshpandé and Zaltman 1982/a).

b Relationship between market research outcomes and expected results (F_VE)

The construct *expected results* means that the research results are not counter-intuitive, do not contradict intuitions but rather confirm preliminary expectations and assumptions (Deshpandé and Zaltman 1982/a).

B Organizational factors

a Job formalization (F_FOR)

Job formalization tells us how far the marketing professional's work activities are limited by written routines and procedures (Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; John and Martin 1984; Moorman, Deshpandé *et al.* 1993).

C Inter-personal (research project-related) factors

a Level of co-operation between marketing manager and market researcher (F_CM)

According to Deshpandé and Zaltman (1982/a) and Moorman, Zaltman *et al.* (1992), by the *level of co-operation between marketing manager and market researcher* we measure the extent of co-operation between the marketing executive and the external market researcher in each stage of the research process (the formulation of the research problem, research design, data analysis, the formulation and discussion of conclusions / recommendations and continuous counseling were examined).

IV.4. Hypotheses

IV.4.1.Hypotheses related to user trust in the researcher (F_TRUS)

Our presumption is that the development of trust in the researcher is influenced by *factors related to the information* supplied by the researcher and by *interpersonal* factors (in connection with the research project).

Hypotheses are formulated about *user trust in the researcher (F_TRUS)* and the:

- ✓ Relationship between market research outcomes and expected results (F_VE),
- ✓ Level of co-operation between the manager and the market researcher (F_CM), and the
- ✓ Perceived quality of the research (F_RQ).

Relationship between market research outcomes and expected results (F_VE)

According to our present ideas, it has not yet been analysed how research results confirming the expectations affect managers' trust in the market researcher. Still, Moorman, Deshpandé *et al.* (1993) found a positive significant relationship between the researcher's ability to reduce uncertainty and the manager's trust in the researcher. In spite of Moorman, Deshpandé *et al.* (1993) having treated researchers' ability to reduce uncertainty as a concept overlapping with creativity and the ability to create value added, the hypothesis validated in the study may be of use in our research. Our assumption says that if the results of a study done by some market researcher confirms the expectations, that is it does not contain factual statements which would increase uncertainty in decision making, the manager will have greater trust in the researcher than in the opposite case. Respondents of the in-depth interviews also formulated statements supporting this hypothesis[19].

H1: The better market research results fit preliminary expectations, the greater the trust the marketing manager has in the researcher.

[19] (Should the findings of the market study significantly differ from what you expected) „You will begin criticizing whatever you can think of to be criticized, why did you choose this target group, why did you apply that filtering method, etcetera" **FMCG, consumables - brand manager**

Level of co-operation between the manager and the market researcher (F_CM),

The positive relationship between the level of co-operation with the researcher and the level of trust in them was evinced by Moorman, Zaltman *et al.* (1992). The impacts of extensive co-operation (intensive and functioning for a longer time) on professional trust were mentioned during the in-depth interviews, as well[20].

H2: The closer the co-operation between the marketing executive and the market researcher during the research process, the greater the trust of the marketing executive in the researcher.

Perceived quality of information (F_RQ)

Our assumption is that the perceived quality of market research information affects the level of the marketing manager's trust in the researcher. The development of trust is a long, iterative process, where a market study of high perceived professional quality is a possible point of reinforcement. Considering inter-departmental share of information, Maltz and Kohli (1996) found that the most important influencing factor of the development of professional trust in a colleague from another department was the professional quality of the information supplied.

H3: The better the quality of the study prepared by the market researcher as perceived by the marketing leader, the greater the trust of the marketing leader in the market researcher.

IV.4.2.Hypotheses related to perceived research quality (F_RQ)

According to our presumption, the perception of research quality is influenced by *information-related factors, user trust in the researcher and the extent of utilization of the information.*

[20] „"Practical advantages (of extensive cooperation) are that one does not have to explain the lingo, the abbreviations, what exactly is meant by this and that and that when collecting data or preparing the questionnaire, a whole lot of things come into one's mind which others could never think of" – **Telecommunications Company 2 – internal market researcher**

Thus hypotheses are formulated about the *perceived research quality (F_RQ)* and the:

- ✓ Political acceptability of the market study (F_PA),
- ✓ Relationship between market research outcomes and expected results (F_VE),
- ✓ Managers' trust in the researcher (F_TRUS), and the
- ✓ Instrumental use of the market research (F_INSTR).

Political acceptability of the market study (F_PA)

Former research has not examined the relationship between the political acceptability of the assertions of the study and the managerial perception of research quality. We may presume that it affects the professional judgement of the market study negatively if the report includes factual statements which cause difficulties to some individuals or groups / departments.

H_4: The more acceptable the market study within the company's political field, the better its quality in the eyes of the marketing manager.

Relationship between market research outcomes and expected results (F_VE)

The effect of how the factual observations of a study fit to preliminary hypotheses on the *perception of research quality* has not yet been looked into, according to our present knowledge. However, the in-depth interviews[21] suggest that the more results confirm preliminary expectations and the more they fit the hypotheses, the better the (professional) quality of the research in the eyes of the manager. The assumption is based on the statement that information not significantly differing from expectations reduces uncertainty and that the ability of information to reduce uncertainty is an important attribute of quality perception (Shannon and Weaver 1949).

H_5: The more the findings of the market research fit preliminary expectations, the better its quality in the eyes of the marketing manager.

Trust in the researcher (F_TRUS)

[21] „What a good research is like? In my opinion, it can reduce the feeling of fear or the question marks in decisions." **– Telecommunications Company 2 - internal market researcher**

The *information asymmetry* between market researcher and marketing manager results partly from the marketing manager often not being perfectly informed about the conditions under which the survey is conducted; furthermore, differences in their knowledge of research methodology and statistics also encumbers an objective judgement of research quality. The findings of Lee, Acito *et al.* (1987) support this idea, as neither the sampling methodology applied, nor the sample size was found to have an effect on marketing managers' perception of the professional quality of survey-type studies. Since a component of trust in the researcher is related to the preliminary expectations about professional skills, we assume that the greater the manager's trust in the researcher, the better the quality of the study in their eyes.

H_6: The more the marketing executive trusts the market researcher, the better the quality of the market study prepared by the researcher in their eyes.

Instrumental use of information (F_INSTR)

Though the impact of information use on perceived quality has received less attention[22], we presume that if a marketing executive - in exploring the market or in decision making - has relied on a given market study, then their perception of its quality will be better, partly explained by the need for self-justification.

H_7: The more extensive the instrumental use of the market research by the marketing manager, the better its quality in their eyes.

IV.4.3.Hypotheses related to the instrumental use of market studies (F_INSTR)

Our assumption is that the instrumental use of market researches is affected by *information-related and organizational* factors and by the extent of conceptual information use.

[22] Maltz and Kohli (1996) could not verify that the /instrumental/ use of information is positively related to the perceived quality of information.

Thus hypotheses are formulated about the *instrumental use of market studies (F_INSTR)* and the:

- ✓ Job formalization (F_FOR),
- ✓ Perceived research quality (F_RQ) and the,
- ✓ Conceptual use of market studies (F_CONC).

Job formalization (F_FOR)

Several studies analysed the effect of job formalization on information use. Deshpandé (1982/b) named the variable „job specificity", and results showed that the more exact the job description the a marketing manager, the less he or she will rely on market research in decision making (instrumental use of information). When formulating the hypothesis, Deshpandé (1982/b) treated job specificity as a dimension of organizational formalization, and built up the hypothesis based on the literature of organizational innovation[23]. According to research into innovation by Zaltman, Duncan *et al.* (1973), the innovativeness of companies working to formal routines lags behind that of less formally organized companies. Since after (Deshpandé 1982/b), the phenomenon of information from a new market study is analogous to that of adapting innovation, we may presume that formalization affects the process negatively. The authors validated the negative relationship between organizational formalization and instrumental use of information in several later studies (Deshpandé and Zaltman 1982/a, 1984, 1987).

The examination of the instrumental use of marketing plans by John and Martin (1984) arrived at findings opposite to those of Deshpandé and Zaltman. According to their results, the more formalized[24] the job, the *larger the extent* to which the plan will be utilized in marketing management activities. Maltz and Kohli (1996) analysing the formalization of inter-departmental information sharing found that the more formalized the communication of information, the larger the extent to which information from other departments is utilized[25] in the marketing department.

[23] Unfortunately, the research does not detail the testing of the scales, therefore the article does not tell us whether it is right to treat job specificity as a dimension of formalization, either.
[24] John and Martin (1984) operationalize formalization through how typical it is that marketing professionals have to follow specific rules and processes when developing the marketing plan.
[25] The study of Mohr, Fisher *et al.* (1996) does not differentiate between instrumental and conceptual uses of information.

A positive relationship between formalization and utilization of information[26] was observed by Low and Mohr (2001), as well. However Kohli and Jaworski (1990) could not detect any significant relationship between formalization and organizational market orientation - a keystone of which is responsiveness to market intelligence, that is the utilization of market knowledge and observation in marketing management work.

Our assumption suggests that the more formalized the job description of a marketing manager, the more he will utilize market studies in decision making. Job formalization brings a kind of order, routine and rigor to marketing management activities, thus in the case of formal work processes and well-defined duties - which may exactly determine the scope of information to be considered in a complex decisional situation - the probability of „neglecting" the conclusions of a market research is much smaller.

H8: The more formalized the job of the marketing manager, the more extensive their instrumental use of market studies.

Perceived quality of information (F_RQ)

After O'Reilly (1982), one of the *most important* determining factors of instrumental information use is information quality. Several former studies verified the relationship between perceived information quality and information use, too (Deshpandé and Zaltman 1982/a, 1984; Lee, Acito *et al.* 1987 ; Menon and Varadarajan 1992 ; Maltz and Kohli 1996, 2001; Low and Mohr 2001).

H9: The better the quality of the market research in the eyes of the manager, the more extensive their instrumental use of that.

Conceptual use of information (F_CONC)

Although the relations of conceptual and instrumental information use have not yet been studied, we assume that if the marketing manager becomes thoughtful about some market study and concludes more abstract market information from that, then -

[26] (Low and Mohr 2001) examined the phenomenon of information use as related to the evaluation of marketing communication activities.

having acquired in-depth knowledge of the study's contents and relations - they will rely on it more than on a study they have only shallow knowledge of.

H_{10}: The more extensive the conceptual use of a market study, the more extensive will be its instrumental use.

IV.4.4.Hypotheses related to the conceptual use of market studies (F_CONC)

Our presumption is that the conceptual use of market research is influenced by *inter-personal (research project-related)* factors and by the instrumental use of information.

Hypotheses are formulated about the *conceptual use of market studies (F_CONC)* and the:

- ✓ Level of co-operation with the market researcher (F_CM),
- ✓ Instrumental use of market studies (F_INSTR).

Level of co-operation with the market researcher (F_CM)

In our study, we assume that during their co-operation with the researcher, marketing executives are forced to systematize their knowledge about the research problem, therefore we presume that the more extensive the co-operation, the more extensive the conceptual use of the information.

H_{11}: The more extensive the co-operation between marketing manager and market researcher in the research process, the more extensive will be the conceptual use of the study by the manager.

Instrumental use of information (F_INSTR)

According to our assumption, the positive relationship between the conceptual and instrumental uses of information is a bi-directional one, thus we assume that the more extensive the instrumental use of a market study, the more extensive will be its conceptual use. The relation underlying this presumption is - as based on the in-depth

interviews[27] - that the marketing manager is not motivated, not forced to thoughtfully consider researches which are not related to specific management problems or which are not backed by real information needs.

H12: The more extensive the instrumental use of the market research by the marketing manager, the more extensive will be their conceptual use of the study.

Table 10 : Hypotheses formulated for the study - summary table

Number of hypothesis	Wording of hypothesis
H1	The better market research results fit preliminary expectations, the greater the trust the marketing manager has in the researcher.
H2	The closer the co-operation between the marketing executive and the market researcher during the research process, the greater the trust of the marketing executive in the researcher.
H3	The better the quality of the study prepared by the market researcher as perceived by the marketing leader, the greater the trust of the marketing leader in the market researcher.
H4	The more acceptable the market study within the company's political field, the better its quality in the eyes of the marketing manager.
H5	The more the findings of the market research fit preliminary expectations, the better its quality in the eyes of the marketing manager.
H6	The more the marketing executive trusts the market researcher, the better the quality of the market study prepared by the researcher in their eyes.
H7	The more extensive the instrumental use of the market research by the marketing manager, the better its quality in their eyes.
H8	The more formalized the job of the marketing manager, the more extensive their instrumental use of market studies.
H9	The better the quality of the market research in the eyes of the manager, the more extensive their instrumental use of that.
H10	The more extensive the conceptual use of a market study, the more extensive will be its instrumental use.
H11	The more extensive the co-operation between marketing manager and market researcher in the research process, the more extensive will be the conceptual use of the study by the manager.
H12	The more extensive the instrumental use of the market research by the marketing manager, the more extensive will be their conceptual use of the study.

[27] „X is typically a research providing general market expansion information. We do it, it's great, but we hardly ever utilize it in decision making. Some people don't ever read it. We don't have the time, or negligence, I don't know the reason.". **FMCG cosmetic products - marketing director**

V. RESEARCH METHODOLOGY

V.1. Data collection

The quarterly database *Cégkódtár 2003/I (Business Information Database)* of the *Hungarian Central Statistical Office (KSH)* was used as the *sampling frame*.

The dissertation has been prepared within the framework of an OTKA research - extending beyond the utilization of market studies and also including the use of marketing-related *IT applications*, market knowledge and *marketing intelligence* - thus the sample was targeted at *Hungarian large-scale businesses*. Operationalization happened through *sales revenues*, and organizations with sales revenues above *HUF 4 billion* in 2002 were defined as large-scale businesses. Our OTKA research team decided for the examination of large-scale enterprises based on the consideration of several aspects like *extent of documentation*[28], *technical feasibility*[29] and *opportunities for the joint observation*[30] of the three research topics (market research, IT systems, market intelligence).

The data of the 1057 large-scale companies taken were further refined with the help of students. Based on the experiences of the in-depth interviews, not necessarily the upper management but rather - depending on the structure of the marketing organization - brand managers and marketing managers were considered as *„key informants"* for the use of marketing information systems - and market studies within (for details see page 51). As the KSH database did not contain the name of the

[28] *Extent of documentation*: In their studies on the organizational use of market research information (Zinkhan, Joachimsthaler *et al.* 1987; Moorman, Zaltman *et al.* 1992; Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; Moorman 1995; Moorman, Deshpandé *et al.* 1993) only considered companies advertising most intensively when preparing the sample. Our sample could not be determined this way since advertising spending is treated confidential; even if there are publications on advertising spending, amounts are calculated at list prices and statements often include sectors instead of specific companies.

[29] *Technical feasibility*: An important point was that the main criterion by which we build up the sample shall be documented, and that the database be suitable for performing the selection by this criterion. The applied KSH database allows the selection of companies by sales revenue, yet it does not permit the analysis of specific sectors, as enterprise records can only be filtered by their main registered TEÁOR (SIC) codes, sector-specific data are not included.

[30] *Joint observation of the use of market researches, marketing IT applications and market intelligence*: Albeit in the case of market researches, some alternative sampling frames could have been applied (e.g. market researcher companies' lists of reference projects), these sampling frames would not have allowed the analysis of the other two topics. Moreover, concerns arise that those lists only contain successful projects. After having reviewed the reference projects of both market research companies and IT consulting firms, we may conclude that basically, well-capitalized large-scale businesses are those who are willing to expend on these components of marketing information systems. Thus targeting our attention on large-scale enterprises was found to also suit the purpose of jointly examining these three topics.

marketing executive, only that of the chief executive, students were asked to identify the respondents according to our instructions. Where the marketing or the chief executive could not be identified, the questionnaire was addressed to „Secretary of the CEO".

The sample were contacted in three stages.

In the first stage, *all 1030 large-scale enterprises* contained in the CD of KSH received a questionnaire accompanied by a letter of request on departmental letter head introducing the academic nature of the research and a self-addressed stamped envelope. Recipients were ensured of the confidentiality and secrecy of the data, and in return for their co-operation, we offered to provide them with a brief summary of the main results of our research – in case they attach their business card to the response letter.

In the second stage, 14 days after having posted the questionnaire, we began to phone the companies who had not already responded. To those firms, at which the questionnaires had not reached the potential respondent - usually caused by the lack of the name of the marketing manager – but were willing to participate, the questionnaires were sent out again via post, e-mail or facsimile.

In the third stage, after having phoned all companies where the phone number was known (in the fourth week after having forwarded the questionnaires), we acquired the missing data for the companies which we could not contact by phone and where questionnaires were sent to „Secretary of the CEO" instead of a dedicated person from the free of charge database of Dunn&Bradstreet available through the Internet (www.figyelonet.hu). The Dunn&Bradstreet database provided us with the name of the marketing manager (or in absence of such, with that of the commercial or sales manager). In cases where the company was known to operate a product manager system, we inquired about the name and exact job title of the product manager via phone. Following the amendment of the database, further questionnaires were posted, and all addressees were contacted by phone 5-10 days after having posted the letters.

The conclusions of the in-depth interviews concerning methodological implementation *could not be completely realized*. The possibilities for treating divisions as sampling units were rather limited. The first part of the questionnaire featured instructions on its completion; here, we expressed our intention to get to know the opinion of a professional from each division, in case the firm consisted of

two or more divisions. In addition, we offered to send questionnaires to the representatives of the other divisions and enabled the download of the questionnaire from the Internet and its photocopying. However, taking into account that we will possibly not receive responses from several divisions of the same company, the instructions asked respondents to answer the questions about the company (e.g. market characterization, market position, strategic objectives) as related to their own division, in case the company consisted of more divisions. Similarly, difficulties arised when trying to contact product managers, as neither the database of KSH, nor that of Dunn&Bradstreet contained the necessary information. Besides, some enterprises refused to answer our questions about the name and exact job title of their brand manager on the ground that these data constitute trade secret information.

V.2. Composition of the sample

V.2.1. Response rates

Out of 1030 questionnaires sent out to the large-scale companies in our database, 47 were returned because of unknown addresses or because the addressee had already left the company and further 11 companies informed us in written of their unwillingness / inability to participate in the research. Thus the final, returned sample of *254* questionnaires corresponds to a response rate of *26 percent* as compared to the potential sample of 972.

Only those companies were drawn into the analysis of the utilization of market research information in this dissertation which had completed a market research with the involvement of an external market research company within the past five years. Altogether, *145* such companies were contained in the returned sample.

V.2.2. Composition of the sample by the experience and job title of respondents

Table 11 : Experience and job title of respondents

	Returned sample: complete				Returned sample: had commissioned market research in past five years			
	Mean	StDev	Mode	Median	Mean	StDev	Mode	Median
For how many years have you been working for this company?	8,8	8,7	3,0	6,2	8,0	6,0	3,0	6,0
For how many years have you been doing this job?	8,4	7,2	3,0	6,0	8,8	7,7	3,0	7,0
What is your job title? *	---	---	2	---	---	---	2	---

* 1: top management level, 2: one level below top management, 3: two levels below top management, 4: three of four levels below top management.

As the table presenting respondents' profile shows, albeit the standard deviations of company- and job-specific experiences are quite large, people have almost a decade's experience on mean, and the most frequent value also represents several years of experience. Both the company-specific and the job-specific experience of about half of the respondents amounts to 6-7 years. Most respondents are one level below the top management in the hierarchy, supposedly with authority to make decisions.

V.2.3. Distribution of the companies in the sample by sector of operation

Table 12 : Distribution of the companies in the sample by sector of operation

Sector of operation (matching TEÁOR-codes)	Mailed, potential sample	Returned sample: complete	Returned sample: had commissioned market research in past 5 years
Agriculture (0000-0999)	2.0	6.0	4.9
Building industry (4100-4550)	6.5	9.2	5.6
Transportation (6000-6323)	4.4	5.2	6.3
Wholesale commerce (5100-5199)	22.0	14.4	14.7
Financial services (6500-6799, 7100-7199)	4.3	6.4	7.7

Sector of operation (matching TEÁOR-codes)	Mailed, potential sample	Returned sample: complete	Returned sample: had commissioned market research in past 5 years
Mining (1100-1450)	0.3	0.4	0.0
Processing industry (1500-3720)	36.5	16.4	12.6
Telecommunication and broadcasting (6400-6499, 9200-9299)	2.6	4.8	7.0
Retail commerce (5000-5050, 5200-5299)	11.1	6.8	7.0
Other services (4000-4099, 6324-6399 7000-7099, 7400-7499)	9.6	3.2	3.5
Other (9200-9299)	0.9	27.2	30.8
Total	100.0	100	100

The distribution by sector of operation of the potential sample, the returned sample and the subsample relevant to the examination of market researches are somewhat different.

The sectoral classification of the potential sample is based on the KSH database. The main TEÁOR code was reviewed and matched to the sectoral classes for each company. That is the reason why only a few firms (0.9 percent) fell into the „other" category. A limitation of matching TEÁOR codes and sectors is that the main TEÁOR code does not always reflect the real scope of activities of the company[31], whereas data on the KSH CD can only be searched by the main TEÁOR code.

The sectoral classification of the companies who returned the questionnaire was completed according to the category they had chosen. Here, the proportion of „other" is high (nearly 1/3), yet respondent anonymity did not allow of the classification of these companies being specified later on.

Based on the known categories, we may state that agriculture, telecommunication and broadcasting, financial services and transportation are over-represented in the sample. Over-represented sectors apart from agriculture (referred to as information-intensive services) were observed to demonstrate a higher willingness to respond in former studies, as well (Berács, Keszey *et al.* 2001). Most

under-represented is the processing industry. However, we should note that processing industry refers to an extraordinarily broad category (e.g. food industry, light industry, heavy industry, etc.). Conceivably, we believe that some of the firms in the „other" category actually belong to the processing industry.

V.2.4. Distribution of the companies in the sample by products / services provided

As a part of the profile of the sample, we determined what kind of products / services our companies deal with. Unfortunately, this feature of the potential sample was not known, so we can only compare the returned sample and the sample relevant to analysing market research. In the sample on which the study of market research utilization was based, less surprisingly, companies operating in industrial (B2B) markets are under-represented while FMCG firms knows to be „large-scale consumers" of market studies and firms providing consumer services constituted a larger proportion of the sample. This difference in distribution, however, is not a systemic error according to our preliminary studies: companies in consumer (B2C) markets, indeed, rely more on market researches than the „players" of industrial (B2B) markets.

Table 13 : Distribution of the companies in the sample by products / services provided

Type of product / service provided	Returned sample: complete	Returned sample: had commissioned market research in the past five years
Durable consumer goods	14.4	13.9
Fast moving consumer goods	18.4	23.6
Materials and components	13.2	11.8
Industrial capital equipment	4	1.4
Industrial services	5.2	1.4
Consumer services	16	22.3
Other	28.8	25.7
Total	100	100

[31] For example, the main TEÁOR (SIC) code of UNILEVER is margarine production. Based on its TEÁOR code, the company would be listed in the processing industry, whereas considering its scope of activities, it should be classified into wholesale commerce.

V.2.5. Distribution of the companies in the sample by number of employees

Since our study examined large-scale businesses – operationalized by sales revenues – it is quite natural that more than 50 percent of the sample was made up of companies employing more than 300 people. In the sample relevant to market research, the percentage ratio of companies with less than 100 employees is lower and that of firms employing more than 1000 individuals is higher than the respective ratios of the whole returned sample. We think the reason for this is that – as evinced by the second preliminary study (for details see page 60) – there is a significant positive relationship between the number of employees and the frequency of applying market research. More than one fourth of the companies in the relevant sample employ more than one thousand people.

Table 14 : Distribution of the companies in the sample by number of employees

Number of employees	Returned sample: complete	Returned sample: had commissioned market research in the past five years
Does not know / No answer	0.4	0.7
Fewer than 20	3.2	1.4
20-99	15.0	11.7
100-299	25.7	24.8
300-499	20.9	18.6
500-999	15.8	16.6
1000-4999	16.6	22.1
More than 5000	2.4	4.1
Total	100	100

V.2.6. Distribution of the companies in the sample by ownership structure

In the relevant sample, the ratio of companies in private ownership is 88.8 percent, most of them majority-owned by the foreign private sector. The proportion of firms majority-owned by the foreign private sector is larger than that in the returned sample, yet according to our surveys, there is a significant relationship between the use of market researches and ownership structure (companies in foreign ownership rely more on market studies than the average (for details see the second preliminary study, page 61) – consequently, this does not cause any difficulties in the research.

Table 15 : Distribution of the companies in the sample by ownership structure

Ownership structure	Returned sample: complete	Returned sample: had commissioned market research in the past five years
State ownership	10.0	11.2
Majority-owned by the Hungarian private sector	36.7	26.6
Majority-owned by the foreign private sector	53.4	62.2
Total	100	100

V.3. Analysis of nonresponse errors

In analysing nonresponse errors, we followed the process put forward by *Armstrong and Overton (1977)*. ANOVA standard deviation analysis was applied to detect any significant differences between the companies contacted in each of the three stages[32] in descriptive variables (products / services provided, division, number of employees, ownership structure) or in the variables and factors included in the model.

The statistical analysis of nonresponse errors did not reveal any significant differences.

Table 16 : Significance level of the differences in the descriptive variables and in the model key variables of companies responding in different stages

Descriptive and key variables	Significance level
What kind of products, services does the company / division provide?	0.306
What is the sector of operation of the company / division?	0.498
What is the approximate number of the company's employees in Hungary?	0.120
Which one of the following statements describes the ownership structure of the company best?	0.056
Perceived research quality (F_RQ)	0.930
Level of co-operation with the market researcher (F_CM)	0.763
Relationship between the market study and the expectations (F_VE)	0.331
Political acceptability of the market research (F_PA)	0.958
Job formalization (F_FOR)	0.792

[32] Questionnaires returned *in the first stage*: those responding immediately after having sent out the first group of letters. *Second stage:* those responding after having them contacted via phone. *Third stage:* the questionnaire of whom, in the first stage, was addressed to „Secretary of the CEO" and who could not be phoned due to the lack of their number but, after correcting the database, received a re-sent questionnaire and a phone call

Descriptive and key variables	Significance level
User trust in the researcher (F_TRUS)	0.388
Instrumental use of information (F_INSTR)	0.141
Conceptual use of information (F_CONC)	0.061

When contacting the companies via phone, it turned out that the most frequent reasons for refusal were related to the length of the questionnaire (10 densely printed A4 pages altogether) and respondents being pressed for time. Given the statistical analysis and the reasons for refusal to respond (which are not specific to the descriptive and the key variables), we conclude that nonresponse errors will not cause a systemic error in the sample.

VI. RESULTS OF THE RESEARCH

The presentation of the research results can logically be divided into two parts. First, the testing process of the scales applied in the research will be introduced, while in the second part, we will show the results of hypothesis testing.

VI.1. Scale development and testing

Since there have only been a few Hungarian research projects the scales of which had been developed and tested in compliance with rigorous and internationally recognized standards, we will provide a brief summary on these guidelines, the instructions of which we have followed throughout the whole research process.

VI.1.1.Scale development

In developing the measurement scales, we adhered to the directions of Churchill (1979) as far as possible. After Churchill (1979), the definition of constructs and premises constitutes an almost separate project within the research process, and the development of the instrumentation is an iterative, multiple-stage process. The scales should reflect several „sources of knowledge", thus besides a.) an exhaustive review of literature on the topic it is desirable to apply b.) qualitative techniques – in-depth interviews with erudite experts of the phenomenon – and moreover, one should c.) rely on the scales applied in previous research into the topic.

In establishing the first variant of the instrumentation, on the one hand we considered previously applied scales found in literature – which proved to be reliable mainly in the American business environment – and on the other hand, we also utilized self-developed scales according to the aspects revealed by our series of qualitative studies. (The origin of the scales and statements / items employed in the study can be found in Table 48, page 102.)

Instrumentation was tested in two stages. In the first phase, two academic professionals were asked to test the first version of the questionnaire. One of these academics – with notable experience in market research practice - was requested to evaluate the statements according to how well they fit Hungarian market research practice and to propose further statements, if deemed necessary. The other

professional – with several decades of experience in research – performed a semantics review of the questionnaire, earmarking statements which are less comprehensible, the translation of which are pervaded with anglicisms and which, based on Hungarian research experience, tend to overtax respondents patience and also provided us with recommendation regarding the structure of the questionnaire and the order of questions.

In the second stage of testing, fifth-year REK[33] students in the faculty of marketing completed the questionnaire. We asked them to take the questionnaire home, complete it and mark less comprehensible, incoherent statements which they had found hard to respond to, briefly describe what their problem was with each item and measure how much time it had taken to completely fill in the questionnaire. Students received bonus points if they had had some of their colleagues in their company's marketing department complete the questionnaire (obviously, their workmates were not expected to evaluate the items). Altogether, 28 questionnaires were returned from testing, 8 of which had been completed by colleagues. By confronting the questionnaires completed by employees and students from the same company, we realized that some statements concerned with the market of operation, though not marked as problematic by either the academic professionals or the students, may still be hard to interpret, as members of the marketing staff of the same company employed in the same job classification had provided fundamentally different values. We tried to explore the background of this phenomenon by arranging a consultation with the students and trying to identify the causes together. As a result, two questions related to the market of operation were reworded. Yet these two questions are not a part of our survey of market research utilization, they do not appear in our model.

Churchill (1979) suggests that the questionnaire be sent out to some of the companies in the sampling frame for pre-testing and that the reliability and

[33] REK: Part-Time, MBA-like University Studies (Részidős Egyetemi Képzés). Post-graduate evening studies which may be attended by students already in possession of a college degree in economics, studying and working at the same time. The majority of REK students in the faculty of marketing (about 80 percent) work in the field of marketing as middle managers. The completion of the questionnaire happened within the frame of the „Marketing Strategy" course. Students had the choice of preparing a written assignment or completing the questionnaire – the accomplishment of the task contributed to the year-end grade, students could receive 10 percent of the points to be collected during the term for this assignment at most.

discriminant validity of the construct be evaluated based on the returned data – pre-testing is typically done with a returned sample of 50-80 elements. However, we were not in the situation to conduct such pre-testing.

VI.1.2. Scale testing

The reliability[34] of the scales was tested by the method applied in international marketing research and described by Gerbing and Anderson (1988).

Gerbing and Anderson (1988) put forward that the unidimensionality of the scales must be assessed, that is we have to check whether the statements (items) in the scales actually relate to the relevant latent constructs. In order to do so, the item-to-total correlations[35] of each item must be examined. The items where the correlation coefficient does not exceed 0.3 must be deleted. Thereafter, factor analysis may be used to verify that the items theoretically belonging to the same construct indeed constitute a single factor. If they belong to the same factor then the scale is unidimensional, thus the Cronbach's Alpha measure of reliability may be used. Values of the latter above 0.6 may be considered acceptable.

A stricter method for measuring the unidimensionality of scales is the so-called confirmatory factor analysis, under which we understand a common factor analysis for all statements. Here we investigate whether a given variable actually belongs to the factor (latent construct) to which it was linked previously and how strong the relationship is between the variable and the factor examined. Should the relationship between the variable and the latent construct not exist or not be strong enough (<0.5), the statement in question must be deleted and the reliability of the scale must then be recalculated.

In order to assess discriminant validity – that is whether two unidimensional factors (latent constructs) are indeed different in content – the correlation between the factors must be measured. Evidence for discriminant validity is if these correlations are significantly below 1.00 (Bagozzi and Phillips 1982). In the opposite case, a second order factor analysis on the first order factors of each dimension should be completed. If the second factor analysis yields a single factor - and if,

[34] **Reliability** expresses the consistency between the results returned by the scale for repeated measurements. (Malhotra 2001:347).
[35] Hereinafter denoted by r*.

considering relevant statistical measures, factor analysis is an adequate method – then there is only one construct and the elements may be contracted.

A Instrumental use of information scale (F_INSTR)

Instrumental use of information was measured by three statements in the questionnaire (Table 17).

Table 17 : Statements for measuring instrumental use of information

Name of variable	Content of variable
V_INSTR1	The majority of the research information from this project was not used (R)*
V_INSTR2	One or more findings of the study had a significant direct impact on the decision
V_INSTR3	It was worth waiting for the research results because some of them materially influenced the decision

* Values given in the questionnaire were reverse coded

As shown by Table 18, all correlations between the statements are high enough, thus no statements has to be deleted from the scale.

Table 18 : Reliability analysis of the instrumental use of information scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_INSTR1	.4170	.8229
V_INSTR2	.6933	.5174
V_INSTR3	.6304	.5914

Cronbach's Alpha value for the scale: .7459

The items of the instrumental use of information scale, indeed, belong to the same factor (Table 19), thus the reliability index of the scale may be calculated. Its value being 0.7459, the scale is regarded as reliable and unidimensional.

Table 19 : Factor analysis on the instrumental use of information scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_INSTR1	.460	1	2.01	66%
V_INSTR2	.794			
V_INSTR3	.746			

KMO=0.613

Sig= 0.000

B Conceptual use of information scale (F_CONC)

Four statements were used to measure conceptual use of information (Table 20).

Table 20 : Statements for measuring conceptual use of information

Name of variable	Content of variable
V_CONC1	The study results gave fresh perspectives and were used to start discussion about an issue
V_CONC2	The study results were used to provide new insights
V_CONC3	Doing the study was educational and we learned from the results
V_CONC4	It is possible that without the research results, a different concept would have been created

The correlations between the statements are everywhere appropriate, consequently, no statement needs to be deleted from the scale (Table 21).

Table 21 : Reliability analysis of the conceptual use of information scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_CONC1	.4355	.6161
V_CONC2	.5118	.5698
V_CONC3	.4008	.6464
V_CONC4	.4763	.5891

Cronbach's Alpha value for the scale: .6713

The items of the conceptual use of information scale truly belong to the same factor (Table 22), thus the reliability index of the scale may be calculated. Its value being 0.6713, the scale is believed to be reliable and unidimensional.

Table 22 : Factor analysis on the conceptual use of information scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_CONC1	.487	1	2.033	50.83%
V_CONC2	.562			
V_CONC3	.437			
V_CONC4	.547			

KMO=0.649

Sig= 0.000

C Perceived research quality scale (F_RQ)

Originally, perceived research quality was intended to be measured by eight statements in the questionnaire (Table 23).

Table 23 : Statements for measuring perceived research quality

Name of variable	Content of variable
V_RQ1	The language of the research study and presentation was clear
V_RQ2	There were too many tables / graphics / statistics
V_RQ3	The conclusions / recommendations of the presentation followed from the data
V_RQ4	The quality of the management summary was high
V_RQ5	The information provided was worth the money spent on it
V_RQ6	The way the information was gathered was appropriate
V_RQ7	The professional quality of the research was high
V_RQ8	There were many contradictory statements or findings

Correlations between the statements were appropriate except for statement V_RQ2 (Table 24), which was therefore omitted. The statements' correlations were recalculated afterwards (Table 25).

Table 24 : Reliability analysis of the perceived research quality scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_RQ1	.5739	.6040
V_RQ2	-.0434	.7439
V_RQ3	.6475	.5746
V_RQ4	.5397	.5888
V_RQ5	.6303	.5583
V_RQ6	.7017	.5463
V_RQ7	.6924	.5764
V_RQ8	-.4547	.7962

Cronbach's Alpha value for the scale: .6709

Table 25 : Reliability analysis of the perceived research quality scale after the deletion of the item with low correlation

Variable	r*	Cronbach's Alpha with the item being omitted
V_RQ1	.6466	.6835
V_RQ3	.6846	6645
V_RQ4	.5746	.6836
V_RQ5	.7002	.6457
V_RQ6	.6983	.6521
V_RQ7	.7570	.6592
V_RQ8	-.5073	.8816

Cronbach's Alpha value for the scale: .7439

The items of the perceived research quality scale belong to the same factor, indeed (Table 26), so the reliability index of the scale may be determined. Its value being 0.7439, the scale is considered reliable and unidimensional.

Table 26 : Factor analysis on the perceived research quality scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_RQ1	.559	1	4.226	60.3%
V_RQ3	.689			
V_RQ4	.488			
V_RQ5	.704			
V_RQ6	.646			
V_RQ7	.762			
V_RQ8	.378			

KMO=0.908

Sig= 0.000

D User trust in the researcher scale (F_TRUS)

User trust in the researcher was measured by seven statements in the questionnaire (Table 27).

Table 27 : Statements for measuring user trust in the researcher

Variable name	Variable content
V_TRUS1	My researcher is creative and he / she is able to provide added value
V_TRUS2	My researcher usually accommodates my last minute requests
V_TRUS3	The information we share with my researcher will not be shared with competitors
V_TRUS4	My researcher reflects on his / her experience to fill in the gaps left by the research

Variable name	Variable content
V_TRUS5	Conflicts with the researcher were solved together
V_TRUS6	My researcher is punctual in meeting deadlines
V_TRUS7	I am convinced that my researcher deeply understands how things are done around here

The correlations between the statements are high enough for every value, thus no statement needs to be deleted from the scale (Table 28).

Table 28 : Reliability analysis of the user trust in the researcher scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_TRUS1	.7167	.8476
V_TRUS2	.6193	.8594
V_TRUS3	.6295	.8595
V_TRUS4	.6058	.8609
V_TRUS5	.6116	.8619
V_TRUS6	.7293	.8458
V_TRUS7	.6910	.8507

Cronbach's Alpha value for the scale: .8732

The items of the user trust in the researcher scale belong to the same factor, indeed (Table 29), so the reliability index of the scale may be determined. Its value being 0.8732, the scale is considered reliable and unidimensional.

Table 29 : Factor analysis on the user trust in the researcher scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_TRUS1	.652	1	4.040	57.2%
V_TRUS2	524			
V_TRUS3	.541			
V_TRUS4	.520			
V_TRUS5	.517			
V_TRUS6	.659			
V_TRUS7	.628			

KMO=0.875

Sig= 0.000

E Political acceptability of the market research scale (F_PA)

Political acceptability of the market research was measured by two statements in our questionnaire (Table 30). However, since in former Hungarian research projects it was detected that the reliability of calque translations of English-language negatory statements is low, our statements were phrased in a positive form. Accordingly, the scale does not measure political acceptability but instead political unacceptability.

Table 30 : Statements for measuring political acceptability of the market research

Name of variable	Content of variable
V_PA1	The implications of the findings were politically unacceptable to others in the organisation
V_PA2	The recommendations challenged the budget or resource allocations of the department

The correlations between the statements are high enough everywhere (Table 31), thus no statement has to be deleted from the scale.

Table 31 : Reliability analysis of the political acceptability of the market research scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_PA1	.3764	--
V_PA2	.3764	--

Cronbach's Alpha value for the scale: .5831

The items of the political acceptability of the market research scale belong to the same factor, indeed (Table 32), so the reliability index of the scale may be determined. In this very case, its value turned out to be 0.5831, just in the vicinity of the limit value for reliability. However, the construct being very important to our study and the scale having been applied in previous researches, we accept this value.

Table 32 : Factor analysis on the political acceptability of the market research scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_PA1	.688	1	1.376	68.8%
V_PA2	.688			

KMO=0.50

Sig= 0.000

F Relationship between market research outcomes and expected results (F_VE)

In our questionnaire, 4 statements were used to measure the relationship between market research outcomes and expected results (Table 33).

Table 33 : Statements for measuring the relationship between market research outcomes and expected results

Name of variable	Content of variable
V_VE1	The results from this research study supported decisions made on other grounds
V_VE2	The results were what we anticipated
V_VE3	The study validated or confirmed our understanding of something
V_VE4	The research study was used to promote awareness and appreciation for an issue of importance

All correlations between the statements are high enough, therefore no statement has to be deleted from the scale (Table 34).

Table 34 : Reliability analysis of the relationship between market research outcomes and expected results

Variable	r*	Cronbach's Alpha with the item being omitted
V_VE1	.6122	.6905
V_VE2	.4743	.7502
V_VE3	.6482	.6577
V_VE4	.5655	.7224

Cronbach's Alpha value for the scale: .7627

Factors linked to the relationship between market research outcomes and expected results indeed constitute a single factor (Table 35), thus the reliability index of the scale may be determined. Its value being 0.7627, the scale is considered reliable and unidimensional.

Table 35 : Factor analysis on the relationship between market research outcomes and expected results

Variable	Communality	Factor	Eigenvalue	Explained variance
V_VE1	.648	1	2.378	59.6%
V_VE2	.499			
V_VE3	.660			
V_VE4	.579			

KMO=0.699

Sig= 0.000

G Job formalization scale (F_FOR)

Job formalization was measured by two statements (Table 36).

Table 36 : Statements for measuring job formalization

Name of variable	Content of variable
V_FOR1	There is a complete written job description for doing things around here
V_FOR2	Everyone has a specific job to do, based on strict operational procedures

The correlations measured between the statements are high enough, thus we do not need to delete any of the statements from the scale (Table 37).

Table 37 : Reliability analysis of the job formalization scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_FOR1	.5715	---
V_FOR2	.5715	---

Cronbach's Alpha value for the scale: .7255

Items of the job formalization scale, indeed, belong to the same factor (Table 38), thus the reliability index of the scale may be calculated. Its value being 0.7255, the scale is considered reliable and unidimensional.

Table 38 : Factor analysis on the job formalization scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_FOR1	.786	1	1.571	78.6%
V_FOR2	.786			

KMO=0.500

Sig= 0.000

H Level of co-operation with the market researcher scale (F_CM)

Four statements of our questionnaire were used to measure the level of co-operation between marketing manager and market researcher (Table 39).

Table 39 : Statements for measuring level of co-operation with the market researcher

Name of variable	Content of variable
V_CM1	Continuous consulting
V_CM2	Problem definition
V_CM3	Designing the research
V_CM4	Data analysis, development and implementation of recommendations

Correlations between the statements are high enough, consequently, no statement has to be deleted from the scale (Table 40).

Table 40 : Reliability analysis of the level of co-operation with the market researcher scale

Variable	r*	Cronbach's Alpha with the item being omitted
V_CM1	.8000	.8520
V_CM2	.6684	.9046
V_CM3	.8235	.8431
V_CM4	.7935	.8572

Cronbach's Alpha value for the scale: .8948

Items related to the level of co-operation with the market researcher scale truly belong to the same factor, thus the reliability index of the scale may be determined. Its value being 0.8948, the scale is considered reliable and unidimensional (Table 41).

Table 41 : Factor analysis on the level of co-operation with the market researcher scale

Variable	Communality	Factor	Eigenvalue	Explained variance
V_CM1	.808	1	3.068	76.7%
V_CM2	.637			
V_CM3	.821			
V_CM4	.802			

KMO=0.772

Sig= 0.000

VI.1.3. Confirmatory factor analysis

A factor analysis (principal component method) was performed in order to find out whether the items actually belong to the relevant latent construct (Table 42). The factor analysis revealed that all but one (V_CONC3) of the variables belong to the given factor and no to some other factor instead. Moreover, two variables (V_TRUS4 and V_TRUS7) of the user trust in the researcher factor (F_TRUS) were found to have a factor loading not exceeding 0.5. These items were deleted and the reliability of the two scales affected were recalculated (Tables 43 and 45).

Table 42 : Rotated component matrix of the factor analysis on the variables for measuring dependent and independent variables

VARIABLES	F_RQ	F_TRUS	F_CM	F_VE	F_CONC	F_INSTR	F_PA	F_FOR
V_RQ7	**0.818**							
V_RQ3	**0.802**							
V_RQ5	**0.783**							
V_RQ6	**0.734**							
V_RQ4	**0.638**							
V_RQ1	**0.631**							
V_RQ8	**-0.594**							
V_CONC3	*0.544*							
V_TRUS3		**0.773**						
V_TRUS2		**0.691**						
V_TRUS6		**0.677**						
V_TRUS1		**0.642**						
V_TRUS5		**0.585**						
V_TRUS7								
V_TRUS4								
V_CM1			**0.833**					
V_CM3			**0.791**					
V_CM4			**0.782**					
V_CM2			**0.735**					
V_VE4				**0.722**				
V_VE3				**0.686**				
V_VE1				**0.658**				
V_VE2				**0.510**				
V_CONC1					**0.787**			
V_CONC4					**0.737**			
V_CONC2					**0.550**			
V_INSTR1						**0.743**		
V_INSTR2						**0.591**		
V_INSTR3						**0.585**		
V_PA1							**0.751**	
V_PA2							**0.675**	
V_FOR2								**0.862**
V_FOR1								**0.762**

KMO = .834; Chi2=2323.929; df=528; Sig=.000

A Amendment of the conceptual use of information scale following the confirmatory factor analysis (F_CONC)

As a result of the removal of variable V_CONC3, the reliability of the scale changes as shown in Table 43. Correlations between the statements remained high enough.

Table 43 : Reliability analysis of the conceptual use of information scale after having removed one of the items

Variable	r*	Cronbach's Alpha with the item being omitted
V_CONC1	.4707	.5291
V_CONC2	.3744	.6536
V_CONC4	.5299	.4415

Cronbach's Alpha value for the scale: .6464

Items of the conceptual use of information scale still belong to the same factor (Table 44), thus the reliability index of the scale may be calculated. Its value being 0.6464, the scale is accepted as reliable and unidimensional.

Table 44 : Factor analysis on the conceptual use of information scale after having removed one of the statements

Variable	Communality	Factor	Eigenvalue	Explained variance
V_CONC1	.612	1	1.760	58.7%
V_CONC2	.467			
V_CONC4	.680			

KMO=0.621; Sig= 0.000

B Amendment of the user trust in the researcher scale (F_TRUS) following the confirmatory factor analysis

Table 45 shows how the reliability of the scale changes following the removal of variables V_TRUS4 and V_TRUS7. The correlations between the statements remained high enough.

Table 45 : Reliability analysis of the user trust in the researcher scale after having removed one of the items

Variable	r*	Cronbach's Alpha with the item being omitted
V_TRUS1	.5765	.8262
V_TRUS2	.6476	.8059
V_TRUS3	.6467	.8041
V_TRUS5	.7181	.7878
V_TRUS6	.6467	.8056

Cronbach's Alpha value for the scale: .8384

Statements of the user trust in the researcher scale still belong to a single factor (Table 46), thus the reliability index of the scale may be calculated. Its value being 0.8384, the scale is considered reliable and unidimensional.

Table 46 : Factor analysis on the user trust in the researcher scale after having removed one of the statements

Variable	Communality	Factor	Eigenvalue	Explained variance
V_TRUS1	.610	1	3.079	61.6%
V_TRUS2	.621			
V_TRUS3	.622			
V_TRUS5	.529			
V_TRUS6	.696			

KMO=0.843

Sig= 0.000

VI.1.4. Summary on the scales of the study

As the confirmatory factor analysis reveals, after the removal of statements V_CONC3, V_TRUS4 and V_TRUS7, all items support the respective factors, latent constructs to an acceptable extent (that is *the scales are unidimensional*), and the *reliability* of the scales *is acceptable* – except for the political acceptability scale, the Cronbach's Alpha value of which is just at the limit, yet accepted because of the frequent use of this two-item scale in former research and because of the theoretical importance of the construct. The correlations between the factors representing the latent constructs are significantly lower than 1.00 (Bagozzi and Phillips 1982), thus *discriminant*[36] *validity* is achieved.

[36] Discriminant validity: expresses that the scale does not correlate with the measurements of other concepts to which it must not be related according to the assumptions (Malhotra 2001:350).

Table 47 : Summary on the statistics of the scales of the study

Scale	Number of items	Mean	Std Dev	Range	Cronbach's Alpha	1	2	3	4	5	6	7	8
F_INSTR Instrumental use of information	3	3.41	.922	1-5	.75	1.00							
F_CONC Conceptual use of information	3	3.50	1.02	1-5	.65	.48*** (143)	1.00						
F_RQ Perceived research quality	7	3.62	.88	1-5	.74	.49*** (139)	.30*** (139)	1.00					
F_TRUST User trust in the researcher	5	3.45	1.32	1-5	.84	.21** (136)	.21*** (136)	.46*** (134)	1.00				
F_PA Political acceptability of the market research	2	1.7	.88	1-5	.58	.07 (141)	.13 (141)	-.14*** (139)	.14 (136)	1.00			
F_VARTER Relationship of market research outcomes to expected results	2	3.5	1.0	1-5	.76	.37*** (140)	.17*** (140)	.47*** (136)	.49*** (134)	.17* (139)	1.00		
F_FOR Job formalization	2	3.1	1.0	1-5	.73	.27*** (141)	.18* (141)	.12 (139)	.02 (136)	.21** (141)	.23** (139)	1.00	
8. F_CM Level of co-operation with the researcher	4	3.5	1.3	1-5	.89	.28*** (139)	.27*** (139)	.39*** (136)	.56*** (135)	.11 (138)	.45*** (136)	.16 (138)	1.00

Table 48 : Origin of the scales of the study and basic statistics of the statements

Name of variable	Content of variable	N	Mean	StDev
Instrumental use of information (F_INSTR) Deshpandé and Zaltman (1982/a) – Based on the instrumental use of information 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_INSTR1	The majority of the research information from this project was not used (R)*	143	3.69	0.87
V_INSTR2	One or more findings of the study had a significant direct impact on the decision	143	3.55	0.91
V_INSTR3	It was worth waiting for the research results because some of them materially influenced the decision	143	3.00	0.99
Conceptual use of information (F_CONC) Menon and Wilcox (1994) – Based on the USER scale 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_CONC1	The study results gave fresh perspectives and were used to start discussion about an issue	146	2.65	0.94
V_CONC2	The study results were used to provide new insights	145	3.80	0.89
V_CONC3	Doing the study was educational and we learned from the results	146	3.17	1.07
V_CONC4	It is possible that without the research results, a different concept would have been created	143	2.86	0.96
Perceived research quality (F_RQ) Deshpandé and Zaltman (1982/a) – Based on the perceived professional and technical quality of the market research 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_RQ1	The language of the research study and presentation was clear	143	4.28	0.70
V_RQ2	There were too many tables / graphics / statistics	143	2.55	1.05
V_RQ3	The conclusions / recommendations of the presentation followed from the data	144	3.83	0.82
V_RQ4	The quality of the management summary was high	143	3.71	1.06
V_RQ5	The information provided was worth the money spent on it	143	3.78	1.09
V_RQ6	The way the information was gathered was appropriate	143	3.94	0.96
V_RQ7	The professional quality of the research was high	143	4.01	0.73
V_RQ8	There were many contradictory statements or findings	143	1.85	0.86
User trust in the researcher (F_TRUS) Based on the trust-related scales of Moorman, Zaltman *et al.* (1992) and Moorman, Deshpandé *et al.* (1993) 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_TRUS1	My researcher is creative and he / she is able to provide added value	141	3.05	1.22
V_TRUS2	My researcher usually accommodates my last minute requests	141	3.46	1.38
V_TRUS3	The information we share with my researcher will not be shared with competitors	142	3.65	1.52
V_TRUS4	My researcher reflects on his / her experience to fill in the gaps left by the research	141	3.04	1.25
V_TRUS5	Conflicts with the researcher were solved together	141	3.51	1.48
V_TRUS6	My researcher is punctual in meeting deadlines	142	3.96	1.21
V_TRUS7	I am convinced that my researcher deeply understands how things are done around here	141	3.52	1.19
Political acceptability of recommendations (F_PA) Deshpandé and Zaltman (1982/a) – Based on the political acceptability of the market research 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_PA1	The implications of the findings were politically unacceptable to others in the organisation	144	1.74	0.98

Name of variable	Content of variable	N	Mean	StDev
V_PA2	The recommendations challenged the budget or resource allocations of the department	143	1.66	0.80
Counter-intuitiveness (F_VE) Deshpandé and Zaltman (1982/a) – Based on the counter-intuitiveness of market research scale 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_VE1	The results from this research study supported decisions made on other grounds	144	3.67	0.87
V_VE2	The results were what we anticipated	143	3.61	0.90
V_VE3	The study validated or confirmed our understanding of something	143	3.66	1.06
V_VE4	The research study was used to promote awareness and appreciation for an issue of importance	143	3.08	1.29
Job formalization (F_FOR) Deshpandé (1982/b) – Regulation of the job 5-point Likert scale 1: strongly disagree, 2: disagree, 3:neither agree nor disagree, 4: agree, 5: strongly agree				
V_FOR1	There is a complete written job description for doing things around here	247	2.86	1.05
V_FOR2	Everyone has a specific job to do, based on strict operational procedures	248	3.38	0.96
Researcher involvement (F_CM) Deshpandé and Zaltman (1982/a) – Based on the level of co-operation with the researcher 5-point semantic differential scale 1: no co-operation at all - 5: extensive co-operation				
V_CM1	Continuous consulting	141	3.30	1.35
V_CM2	Problem definition	141	3.50	1.46
V_CM3	Designing the research	141	3.62	1.35
V_CM4	Data analysis, development and implementation of recommendations	141	3.66	1.23

* Reverse coded, that is 5s given by respondents were entered into the database as 1s and vice versa

VI.1.5. Reliability and validity

As presented in the previous chapter, the reliability and the discriminant validity of the research can be verified by mathematical-statistical methods. Nevertheless, further tests would be needed to estimate the *nomological validity*[37] of the scale. Considering nomological validity, Curchill (1979) proposes so-called multitrait-multimethod tests, during which the same phenomenon is investigated in different ways, by different theoretical constructs and in different times. There was no opportunity for us to perform such a comparison of our study and other Hungarian studies, however, nomological validity may be assessed in a later research comparing the results acquired in different times and with different respondents.

This time, conclusions about nomological validity may be drawn from the results of the preceding series of qualitative interviews and from those of the scale development. Our series of in-depth interviews more or less provided an opportunity to examine the phenomenon of the use of market research information by a method different from that of our study, while in the process of scale development, if subjects interpreted some questions in different ways or if further aspects arised related to a given construct, amendments could be accomplished by modifying the questionnaire. Nomological validity is further strengthened by the fact that in formulating the hypotheses and the assumptions concerning relations, we relied on the international literature of the topic, that is on studies which provide a basis for external comparison with other results – though direct comparison is hindered by these having been completed in a business environment different from that of Hungary.

Validity was also enhanced by applying the so-called „critical incident" method during the survey. Respondents were not asked to evaluate the utilization of market studies in general but to provide their answers relating to a certain – namely the most recent research.

[37] Nomological validity expresses how much the correlation of the scale with measurements of different but related concepts corresponds to theoretical expectations. (Malhotra 2001:350).

VI.2. Hypothesis testing

Having formulated the hypotheses, we may produce the following equations to be tested:

- ✓ **F_TRUS** = $\beta_{1.1}$ (F_VE) + $\beta_{1..2}$ (F_CM) + $\beta_{1..3}$ (F_RQ) + e_1;
- ✓ **F_RQ** = $\beta_{2.1}$ (F_PA) + $\beta_{2.2}$ (F_VE) + $\beta_{2.3}$ (F_TRUS) + $\beta_{2.4}$ (F_INSTR) + e_2
- ✓ **F_INSTR** = $\beta_{3.1}$ (F_FOR) + $\beta_{3.2}$ (F_RQ) + $\beta_{3.3}$ (F_CONC) + e_3
- ✓ **F_CONC** = $\beta_{4.1}$ (F_CM) + $\beta_{4.2}$ (F_INSTR) + e_4

Where:

F_TRUS: user trust in the researcher
F_RQ: perceived research quality
F_INSTR: instrumental use of market research
F_CONC: conceptual use of market research
F_PA: political acceptability of the market research
F_VE: relationship between market research outcomes and expected results
F_FOR: job formalization
F_CM: level of co-operation with the researcher

Hypotheses were tested by linear regression, using the statistical software package SPSS 9.0.

VI.2.1. Assessing multicollinearity

Before developing the estimates for the regression equations, the issue of *multicollinearity*[38] was examined. In case there is multicollinearity between independent variables, their effects on the dependent variable can not be determined separately.

When looking into multicollinearity, we follow the methodology put forward by Mason and Perreault (1991), thus the R-squared values must be calculated for the regression equations with all variables substituted as dependent variables. If the R-squared values for these latter equations are smaller than those of the respective

[38] Multicollinearity: close correlation between the independent variables (Malhotra 2001:630). Multicollinearity stands for a linear correlation between two (or more) explanatory variables. As a result of this relationship, changes in the values of one explanatory variable induce changes in the values of the other one, which hinders the measurement of the separate effects of these explanatory variables. (Hunyadi, Mundruczó *et al.* 1997:741).

original equations (based on the relations between the independent and dependent variables of the model), multicollinearity does not play a role.

Below (Tables 49-52), the R-squared value is calculated for all four equations with the dependent and independent variables being „rotated".

Table 49 : Assessing multicollinearity - First regression equation ($F\_TRUS = \beta_{1.1}(F\_VE) + \beta_{1..2}(F\_CM) + \beta_{1..3}(F\_RQ) + e_1$)

Dependent Variable	R-squared value
F_TRUS (original regression equation)	.464
F_VE	.325
F_CM	.431
F_RQ	.316

Table 50 : Assessing multicollinearity – Second regression equation ($F\_RQ = \beta_{2.1}(F\_PA) + \beta_{2.2}(F\_VE) + \beta_{2.3}(F\_TRUS) + \beta_{2.4}(F\_INSTR) + e_2$)

Dependent Variable	R-squared value
F_RQ (original regression equation)	.451
F_PA	.109
F_VE	.346
F_TRUS	.327
F_INSTR	.284

Table 51 : Assessing multicollinearity – Third regression equation ($F\_INSTR = \beta 3.1(F\_FOR) + \beta 3.2(F\_RQ) + \beta 3.3(F\_CONC) + e3$)

Dependent Variable	R-squared value
F_INSTR (original regression equation)	.408
F_FOR	.084
F_RQ	.250
F_CONC	.261

Table 52 : Assessing multicollinearity – Fourth regression equation (F_CONC = β4.1 (F_CM) + β4.2 (F_INSTR) + e4)

Dependent Variable	R-squared value
F_CONC (original regression equation)	.273
F_CM	.100
F_INSTR	.268

As the values in Tables Table 49-52 reveal, the R-squared values of the original regression equations are the highest in all four cases. Thus according to the approach of (Mason and Perreault 1991), we may conclude that multicollinearity will not cause any problems and that the separate effects of the explanatory variables on the dependent variable may be measured.

VI.2.2. Testing the hypotheses

Table 53 (page 108) contains the standardized β coefficients, in parenthesis the t- values, the F-values with their significance levels and the R-squared values for all four regression equations.

As evidenced by the data, three out of the four equations (those related to trust in the researcher, perceived quality of information and instrumental use of information) show a very good fit (that is R-squared values - expressing the percentage of the standard deviation of the independent variable explained by the variables in the equation – are relatively high). The fit of the fourth equation, related to conceptual use of information, is somewhat worse; however, if we compare our R-squared value to those of the regression models associated with conceptual use of information in international studies (e.g. Moorman (1995): R-squared = .273; Maltz and Kohli (1996): R-squared = .250), we see that our model does not lag behind.

Table 53 : Standardized β coefficients of the regression equations

	DEPENDENT VARIABLES			
INDEPENDENT VARIABLES	**F_TRUS**	**F_RQ**	**F_INSTR**	**F_CONC**
F_PA	---	-.223** (-3.357)[39]	---	---
F_VE	.158* (2.033)	.218** (2.768)	---	---
F_FOR	---	---	.165** (2.434)	---
F_CM	.469*** (6.222)	---	---	.138 (1.814)
F_TRUS	---	.329*** (4.429)	---	---
F_RQ	.204** (2.674)	---	.366*** (5.235)	---
F_INSTR	---	.346*** (4.871)	---	.468*** (6.164)
F_CONC	---	---	.358*** (5.062)	---
F-value	36.704 ***	26.246***	30.812***	25.784***
R-squared	.464	.451	.408	.273

*p<.05; **p<.01; ***p<0.001

[39] In the case of the questions formulated is a positive form, a negative value of the standardized beta coefficient represents a positive relationship between the dependent and independent variables (as for these statements /e.g. The implications of the findings were politically unacceptable to others in the organisation/, high values reflect political unacceptability instead of political acceptability)

Hereinafter, we will analyse each hypothesis formulated in chapter IV.4. (page 69) one by one.

The first hypothesis (H_1) asserted that there is a positive relationship between trust in the researcher and the relationship between market research findings and expected results. Results *support* the hypothesis ($\beta_{1.1}$=.158, p<.05), as there is a significant positive relationship between the two factors. Thus our results are in line with the former findings of Moorman, Deshpandé *et al.* (1993) that the ability of the researcher (research) to reduce uncertainty does largely contribute to user trust in the researcher.

The second hypothesis (H2) suggested a positive relationship between the level of co-operation between marketing manager and market researcher and user trust in the researcher. Results *support* the hypothesis ($\beta_{1..2}$=.469, p<.001), since there is a positive and significant relationship between the two factors. Just like Moorman (1992), we successfully verified that the more extensive the co-operation between the researcher and the marketing manager, the more the latter will trust the researcher.

The third hypothesis (H3) proposed that there is a positive relationship between the perceived quality of the market study prepared by the researcher and the user trust in the researcher. Results *support* the hypothesis ($\beta_{1.3}$=.204, p<.01), as there is a significant positive relationship between the two factors. Maltz and Kohli (1996) analysed the effect of information quality on trust as related to the sharing of market information between marketing and non-marketing managers. They found that good quality market information plays an important role in establishing professional trust in the information provider. The validation of the third hypothesis implies that this relationship between information quality and trust in the information provider holds true in other contexts (marketing manager and market researcher), as well.

The fourth hypothesis (H4) asserted that there is a positive relationship between the political acceptability of the market research and perceived research quality, that is we assumed that the perception of the professional quality of a market research is affected negatively by the report containing findings which could cause discomfort to some individuals or groups / departments. Results *support* the hypothesis ($\beta_{2.1}$ = -.223, p<.01), as there is a significant negative relationship between the two factors (explanation in footnote #39, page 108).

The fifth hypothesis (H5) suggested a positive relationship between the fit of market research findings to expected results and perceived research quality, that is – based on the in-depth interviews and on the idea of Shannon and Weaver (1949) that one of the most important attributes of information is its ability to reduce uncertainty – we presumed that the more research findings correspond to expected results, the better the quality of the study in the eyes of the executives. Results *support* the hypothesis ($\beta_{2.2}$ =.218, p<.01), as there is a significant positive relationship between the two factors.

The sixth hypothesis (H6) asserted that there is a positive relationship between the marketing manager's trust in the researcher and perceived research quality. Results *support* the hypothesis ($\beta_{2.3}$ =.329, p<.001), as there is a significant positive relationship between the two factors. Accordingly, we accept that the more the marketing executive trusts the market researcher, the better the quality of the market study in their eyes.

The seventh hypothesis (H7) proposed a positive relationship between the instrumental use of the market study and perceived research quality. Results *support* the hypothesis ($\beta_{2.4}$ =.346, p<.001), as there is a significant positive relationship between the two factors.

The eighth hypothesis (H8) suggested that there is a positive relationship between the job formalization of the marketing manager and the instrumental use of information. Results *support* the hypothesis ($\beta_{3.1}$ =.165, p<.01), as there is a significant positive relationship between the two factors. Thus our results are consistent with the findings of John and Martin (1984), Maltz and Kohli (1996) and Low and Mohr (2001): the formalization of the job of the marketing manager, indeed, ensures order, routine and rigor in management tasks, consequently, recommendations and findings of market researches are less easily ignored and more effectively utilized in decision making.

The ninth hypothesis (H9) proposed that there is a positive relationship between perceived research quality and the instrumental use of information. Results *support* the hypothesis ($\beta_{3.2}$ =.366, p<.001), since there is a significant positive relationship between the two factors, as detected by several previous studies (Deshpandé and Zaltman 1982/a; Deshpandé and Zaltman 1984; Lee, Acito *et al.*

1987; Menon and Varadarajan 1992; Maltz and Kohli 1996; Maltz and Kohli 2001; Low and Mohr 2001).

The tenth hypothesis (H10) asserted that there is a positive relationship between the conceptual and the instrumental uses of market research. Results *support* the hypothesis ($\beta_{3.3}$ =.358, p<.001), as there is a significant positive relationship between the two factors.

The eleventh hypothesis (H11) suggested that there is a positive relationship between the level of manager-researcher co-operation and the conceptual use of the market study. Results *do not support* the hypothesis ($\beta_{4.1}$ =.138, p=n.s.), as though there is a positive relationship between the two factors, significance level is not acceptable.

The twelfth hypothesis (H12) asserted that there is a positive relationship between the instrumental and conceptual uses of market researches. Results *support* the hypothesis ($\beta_{4.2}$ =.468, p<.001), as there is a significant positive relationship between the two factors.

Table 54 : Results of hypothesis testing

Number of hypothesis	Wording of hypothesis	Hypothesis empirically validated?
H1	The better market research results fit preliminary expectations, the greater the trust the marketing manager has in the researcher.	YES
H2	The closer the co-operation between the marketing executive and the market researcher during the research process, the greater the trust of the marketing executive in the researcher.	YES
H3	The better the quality of the study prepared by the market researcher as perceived by the marketing leader, the greater the trust of the marketing leader in the market researcher.	YES
H4	The more acceptable the market study within the company's political field, the better its quality in the eyes of the marketing manager.	YES
H5	The more the findings of the market research fit preliminary expectations, the better its quality in the eyes of the marketing manager.	YES
H6	The more the marketing executive trusts the market researcher, the better the quality of the market study prepared by the researcher in their eyes.	YES
H7	The more extensive the instrumental use of the market research by the marketing manager, the better its quality in their eyes.	YES
H8	The more formalized the job of the marketing manager, the more extensive their instrumental use of market studies.	YES
H9	The better the quality of the market research in the eyes of the manager, the more extensive their instrumental use of that.	YES

Number of hypothesis	Wording of hypothesis	Hypothesis empirically validated?
H10	The more extensive the conceptual use of a market study, the more extensive will be its instrumental use.	YES
H11	The more extensive the co-operation between marketing manager and market researcher in the research process, the more extensive will be the conceptual use of the study by the manager.	NO
H12	The more extensive the instrumental use of the market research by the marketing manager, the more extensive will be their conceptual use of the study.	YES

Figure 12 : The empirically validated model

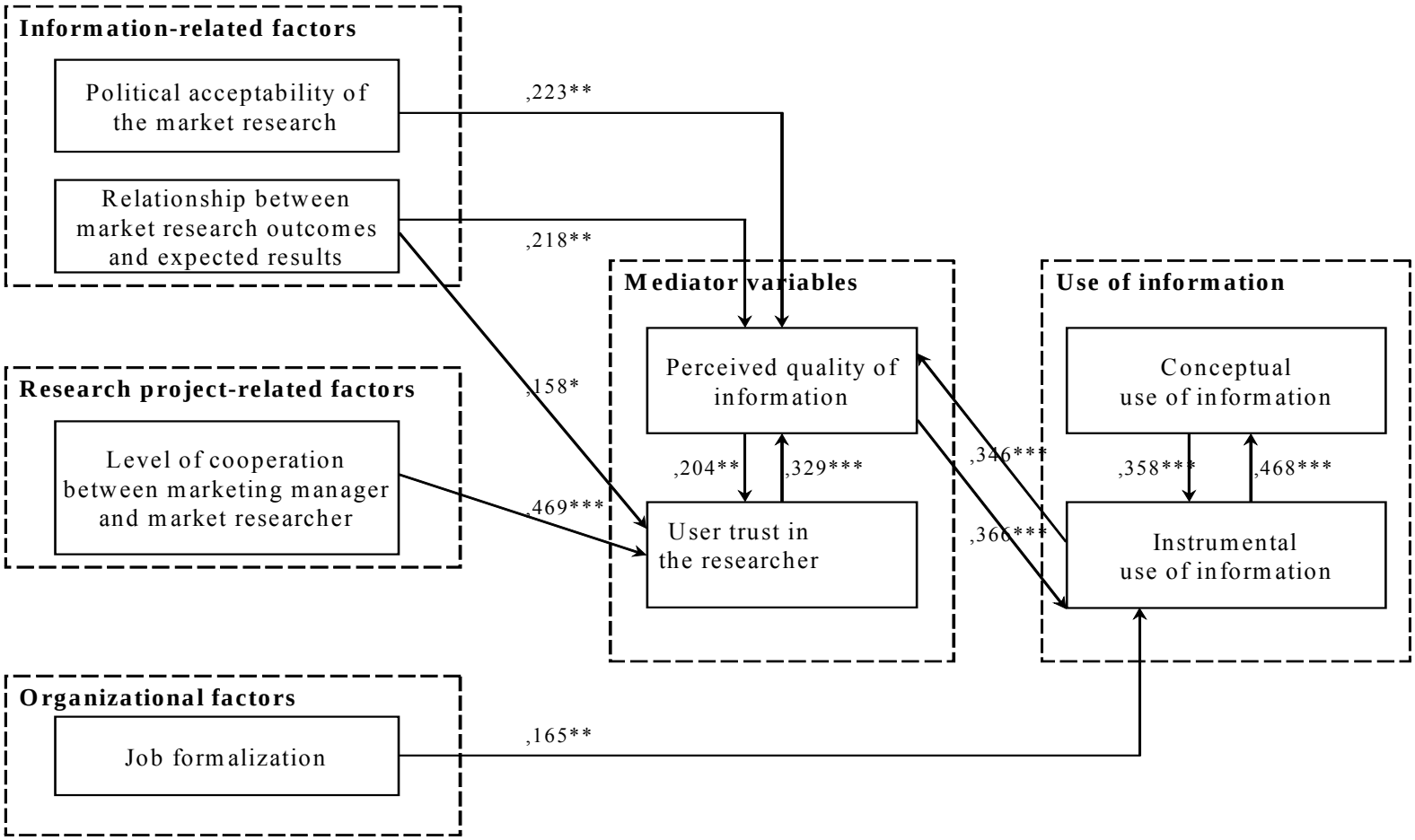
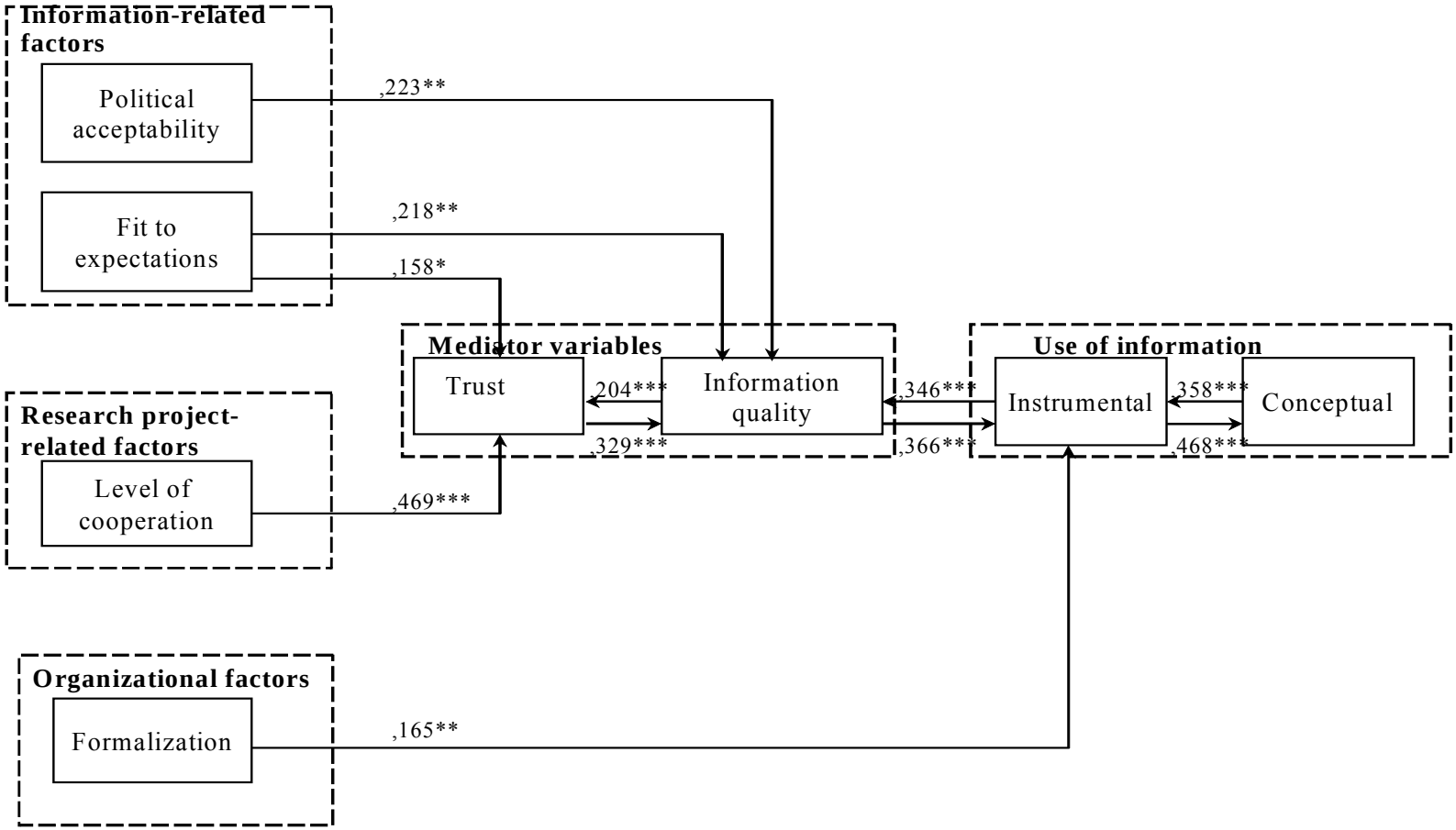


Figure 13 : The empirically validated model – different representation of variables



VI.3. Discussion and interpretation of the results

VI.3.1. Structure of the model

Hypothesis testing and the preceding pre-tests (viz. assessing multicollinearity) showed that it was appropriate to highlight the constructs of perceived research quality and user trust in the researcher as mediator variables. Thus our results support the findings of Moorman, Deshpandé *et al.* (1993); Maltz and Kohli (1996) and Low and Mohr (2001) asserting that trust and market research quality are key concepts as related to the use of information. Accordingly, it is important to understand what marketing executives mean by a „good quality" research and to see which marginal conditions (skills, abilities, co-operation, etc.) should be achieved in order for the researcher to be able to provide such good quality results. Similarly, the dynamics of trust and the factors affecting trust are worth considering, too.

VI.3.2. Separating the concepts of information use and perceived information quality

A review of the results – a more abstract one than hypothesis testing – leads to the conclusion that research quality, instrumental and conceptual uses of market studies are *different concepts*, as revealed by the reliability analysis and the assessment of discriminative validity of the scales used in our study. This observation is very important, as according Menon and Varadarajan (1992) and Homburg and Karlhaus (1998), several studies on the topic *did not sharply distinguish* between the concept of information use and that of market research quality; moreover, authors *do often not make sharp distinctions* between the instrumental and conceptual uses of information.

VI.3.3. Different independent variables affecting the concepts of information use and perceived information quality

Our research results do not only confirm that the three concepts (perceived information quality, instrumental use of information and conceptual use of information) are different indeed (see page 86), but also imply that *these three*

constructs are influenced by different factors (independent variables)[40]. This latter finding is in line with the assumption of Homburg and Karlhaus (1998), and it also explains why the models of former studies did not comprehensively analyse the phenomenon of information use.

VI.3.4. The dynamics of trust in the market researcher

The four regression equations lead to further interesting conclusions.

Our research being not primarily focused on the dynamics and the establishment of trust between market researcher and marketing manager, there is obviously no chance to develop a comprehensive understanding of this phenomenon. Still, an interesting finding in line with former results (Moorman, Zaltman *et al.* 1992, 1993; Maltz and Kohli, 1996) is that the establishment of trust is not only affected by the variable of the interpersonal group (research project-related factors) related to the level of co-operation but it is also significantly influenced by *market research-specific* factors.

VI.3.5. Relationships between user trust in the researcher and the position of the market researcher

In our survey, we posed the question whether an independent market researcher position or department exists within the company. Though this dichotomous variable was not a part of our model, subsequently we examined how the „dynamics" of trust – that is the regression equation related to trust – is affected by the existence or non-existence of such a position in the organization.

The in-depth interviews of the qualitative preliminary studies revealed that the market researcher position plays the role of some kind of interpreter between

[40] Though they lack a comprehensive exploration of the mode of action of conceptual information use, as the fit of the conceptual use of information model lags behind those of the other equations. Still, the overview of the topic leads to the conclusion that *neither one* of the researches concerned with the utilization of market studies *has examined* conceptual use of information *before*, they only looked into instrumental uses – accordingly, our study is the *first* one to do so.

market researchers „juggling" with statistical terminologies and marketing managers dealing with business problems[41].

We examined whether there is a significant difference in the level of co-operation with the market researcher and user trust in the researcher depending on whether the market researcher position exists or not within the company.

No significant (p=.05) difference could be detected in the *level* of co-operation, yet the *trust* in market researchers of those marketing managers whose contact to the (external) market research company is mediated by an internal market researcher *is significantly lower*.

Let us look at the „composite index" composed of the five variables (V_TRUS1, V_TRUS_2, V_TRUS3, V_TRUS5 and V_TRUS_6) of the trust factor (F_TRUS), the maximum value of which is 25, as all five variables were measured on a 5-point scale.

The basic statistics (mean and standard deviation) of this composite index in the three cases (1.) if the market researcher position exists, 2.) if the market researcher position does not exist, and, 3.) if the market researcher position is not considered, are the following:

Table 55 : Trust of the marketing manager in the (external) market researcher as a function of the existence of the market researcher position

	Mean	StdDev	Valid sample
Total	17.7	5.29	138
Market researcher position exists	16.2	6.27	43
Market researcher position does not exist	18.2	4.70	91

These data suggest that marketing managers have above-the-average trust in the external market researcher if they can keep in direct contact with them, while their

[41] „Completing the study is rendered more difficult by the product managers **inability to think the way market researchers do.** It is not enough to say that the target group of the research is the industrial market. Should I take this seriously, the research could easily last 4 months. Now, I say to the product manager, that they should think over whom they really want to ask, small, medium or large-scale businesses, possibly institutions." Telecommunications company – internal market researcher; „People from brand management are not dumb, they are simply differently conditioned, they have another focus" – Market research company – top manager

trust is significantly below the average if the internal market researcher position exists within the company.

Further analysis showed that not only the level of trust, but also the *role of the* factors affecting the establishment of trust is different depending on whether the internal market researcher position exists. This was investigated by recalculating the regression equations. Regression equations are produced for both cases:
The *original* equation (arrived at without considering the existence of the market researcher position)[42] (see Table 53 : Standardized β):
F_TRUS = .158 *(F_VE) + .469*** (F_CM) + .204*(F_RQ) + e_1; (R-squared = .464)

If the market researcher position *exists*, this is what the regression equation looks like:
F_TRUS = .099 (F_VE) + .534*** (F_CM) + .115 (F_RQ) + e_1; (R-squared = .387)

If the market researcher position *does not exist*, the regression equation is:
F_TRUS = .208* (F_VE) + .420*** (F_CM) + .256** (F_RQ) + e_1; (R-squared = .532)

The above equations show that the role of co-operation with the researcher *becomes more important* if the internal market research position exists, nevertheless we can see, that if the marketing manager can only contact the external researcher with the mediation of the internal researcher, then research project-specific factors *do not affect* the level of trust. The opposite holds true, as well: if the marketing manager and the external researcher communicate directly, research project-specific factors will have a more important role in the establishment of trust.

[42] **Where:**
F_TRUS: user trust in the market researcher
F_VE: relationship between market research findings and expected results
F_CM: level of cooperation with the researcher
F_RQ: perceived research quality
and *p<,05; **p<,01; ***p<0,001

One possible cause is that if there is an internal market researcher within a given company, then marketing managers receive market studies „over" the internal researcher. Thus if the source, the „publisher" of the research is the internal researcher, then *it is more difficult* for the marketing manager to *track down* quality issues to the author of the study. (Yet interestingly, there is no significant relationship /p=.956/ between the existence of the market researcher position and research quality as perceived by the marketing manager, while between the existence of this position and the fit of market research findings to expectations, there is a weak but still unacceptable /p=.056/ positive relationship.)

R-squared values of the model (viz. worse fit if the market researcher position exists) suggest that in case the internal market researcher position exists, it may be reasonable to introduce *further independent variables* (e.g. level of co-operation between internal and external researcher, the internal researcher's commitment to the company, etc.) to the model in order to achieve a more complex understanding of the matter.

VI.3.6. Relationship between user trust in the researcher and the use of information

In our research, we *did not formulate* a hypotheses concerning user trust in the researcher and the use of information. The reason behind is that *neither one* of the previous studies with regression models measuring the *direct relationship* of these two variables could detect a significant relationship.

Still we examined how the regression equations for the instrumental and conceptual use of information *would look like* if we decided to introduce user trust in the researcher to the model.

In the above case, the regression equation for the instrumental use of information would be[43]:

[43] **Where:**
F_INSTR: instrumental use of the market research
F_RQ: perceived research quality
F_CONC: conceptual use of the market research
F_TRUS: user trust in the researcher and *p<,05, **p<,01; ***p<,001

F_INSTR = .155* (F_FOR) + .392*** (F_RQ) + .349*** (F_CONC) -.049 (F_TRUS) + e_3 (R-squared = .381, F-value 19.856***)

We would not be able to produce an equation for the conceptual use of information, as multicollinearity could not be prevented.

It is apparent that based on the regression equations, *no direct relationship* can be demonstrated between instrumental use of information and user trust in the researcher. Thus it is not true that the more the marketing manager trusts the market researcher, the more they rely on the market research. Moorman, Zaltman *et al.* (1992) arrived at the same result when further analysing the relationship between trust and the use of information. Applying path analysis, they evinced that though the direct effect of user trust in the researcher on the use of information is marginal indeed, it is one of the *most important indirect* factors.

Thus our results support former findings, and the review of the empirically validated model (Figure 12, page 113) shows us that user trust in the researcher is the *most important* factor influencing perceived research quality, nevertheless the quality of the market study is the *most important* factor (examined) affecting the instrumental use of information.

VI.3.7. Dynamics of the development of perceived information quality

As Table 53. (page 108) reveals, the most significant influencing factors of the perception of information quality are, somewhat contradicting one's intuitions, *not information-related factors* (like the political acceptability of the results or the fit of the findings to expectations).

Marketing managers' *trust* in the market researcher played a more important role in the perception of information quality. Based on the level of trust originating from professional competence and attitude, marketing executives, maybe often unwittingly, „weight" or „criticize" the sources as related to market research quality.

Former results suggested that the perception of information quality is most influenced by whether the information is „suitable" for being directly incorporated

into management work, whether it is a useful decision support tool and whether the results and findings of the market research were actually utilized.

Unfortunately, we have not analysed the quality of market researches by„objective" criteria – possibly, the most appropriate method for that would be an experiment instead of a survey - still, it may be of interest how the four groups of factors, namely

1. objective parameters of the market research (e.g. sample size, method of survey, reliability of the instrumentation, etc.);
2. contextual factors of the market research (e.g. political acceptability, fit to hypotheses),
3. trust in the researcher and
4. utilization of the research affect perceived information quality.

In our present study, we have only investigated the latter three factors, nevertheless from former findings of Lee, Acito *et al.* (1987)[44] we may conclude that objective criteria are the factors which contribute *least* to the marketing manager's evaluation of the quality being positive.

The framework of this research provided no opportunity to analyse the root causes behind the relationships between dependent and independent variables. Thus a later study will attempt to find out why the extent of instrumental use is the factor to influence the positive judgement of research quality most. One of the explanations is pretty obvious, and actually corresponds to the „official standpoint" of management textbooks, according to which market research is an important decision support tool, thus it can only perform its function and therefore be considered useful and of good quality, if it can truly assist in decision making. However, the role of self-justification (I made a good decision based on good quality information) and the often unconscious efforts to avoid cognitive dissonance in the establishment of the relationship between the two variables is still unclear.

Nevertheless, our findings point out that the perception of research quality is a *process* rather than an event, which practically begins with developing an image of

[44] According to the results of Lee, Acito *et al.* (1987), sample size and the method of sampling did not have an effect on the use of survey-type studies.

and a fiduciary relationship with the researcher (in time, this is related to the research project whilst the output of the research, *the study has by far not been completed yet*), however, it *does not finish* with completion of the market study, since the utilization of the recommendations in decision making also „retroacts" on the perception of quality.

VI.3.8. Dynamics of the instrumental and conceptual uses of information

According to our findings, information-related and research project-related (inter-personal) factors *do not affect* the use of information *directly, only through the mediator variables. Organizational configuration*, however, is a factor influencing the utilization of information. As discussed when introducing the hypotheses (page 115), several former studies looked into the impact of formalization on information use – with contradicting results. While Deshpandé and Zaltman (1982/a, 1982/b, 1984, 1987), found a significant negative relationship between organizational formalization and instrumental use of information, results of other authors (John and Martin 1984, Maltz and Kohli 1996, Low and Mohr 2001) evidence that the more formal the routines of an organization, the more extensive the (instrumental) use of information. Our findings support the latter proposition.

Our research being the first one to examine the phenomena of instrumental and conceptual information uses – in a single model – as related to market research, the literature base we could rely on when formulating the hypotheses about the conceptual use of information was obviously smaller than for the instrumental use of information. Though we found only one variable – namely instrumental use of information – influencing the conceptual use of information, results may also be interpreted in a wider context.

At the same time, our finding that conceptual information use is most affected by instrumental information use also means that learning about the market (conceptual use of information) is accomplished through the thorough understanding and the incorporation into management work of data and facts (instrumental use of information). In the field of marketing, several researchers (Barabba and Zaltman 1991; Haeckel (1987) tried to analyse how and through which mechanisms basic

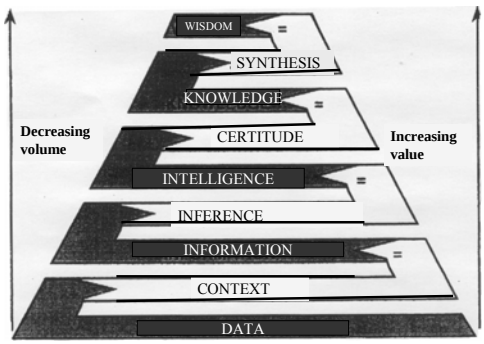
data can be converted into market knowledge. The models of both Barabba and Zaltman (1991) and Haeckel (1987) delineate a *hierarchical* relationship between market data, information and knowledge. Thus the authors agree that market information is a necessary – but not sufficient – condition for the development of market knowledge and certitude. Haeckel (1987), for example, mentions activities like contextualization, synthesis and drawing conclusions in his value chain[45] leading from market data to market „wisdom".

Our results concerning the effect of instrumental use of information on conceptual use of information may be linked to the model of Barabba and Zaltman (1991) and Haeckel (1987). We also found that the path to market knowledge is through market information, more exactly through the direct utilization (contextualization) of market information.

The only hypothesis of our model that we could not validate asserted that a positive relationship exists between conceptual use of information and the level of co-operation with the market researcher. The hypothesis has also been tested on subsamples. The regression equation has been tested amongst companies where an *independent market research department* or position exists and where it does not.

[45] The model of Haeckel (1987) and Barabba and Zaltman (1991) depicts the data-information-intelligence-knowledge-wisdom chain hierarchically, in a pyramid-like form. Going from the data towards wisdom, their value for the company is increasing while their volume is decreasing. The model actually formulates the idea that there is an indirect relation between basic data and wisdom. A series of processes – of contextualization, evaluation, reduction of uncertainty and synthesis – constitutes the path from data to wisdom.

Haeckel's model of information hierarchy



Source:Barabba and Zaltman (1991:45).

The regression equations were as follows[46]:

Original regression equation:

F_CONC = .138 (F_CM) + 468*** (F_INSTR) + e_4 (R-squared = .273)

If an internal market research department or position exists:

F_CONC = -.141 (F_CM) + 446*** (F_INSTR) + e_4 (R-squared = .191)

If there is no internal market research department or position:

F_CONC = .280** (F_CM) + 444*** (F_INSTR) + e_4 (R-squared = .352)

It is interesting that at companies where the internal market researcher position *does not exist*, we can validate the hypothesis suggesting that the closer the co-operation between the external market researcher and the marketing manager, the more they learn about the market through the research. Nevertheless, at companies which have an internal market research department, the relationship does not hold.

Accordingly, the existence of the internal market researcher position has a *moderating effect* on the relationship between the level of co-operation and learning. Another interesting – yet not significant – finding was that at businesses which do have an internal market researcher, the relationship between the level of co-operation and the conceptual use of information is *slightly negative*.

[46] Where:
F_CONC: conceptual use of the market research
F_INSTR: instrumental use of the market research
F_CM: level of cooperation with the market researcher
and *p<,05; **p<,01; ***p<,001

VII. SUMMARY

VII.1. Research results, main findings

The study analyses marketing managers' use of market information acquired through market research.

The organizational use of market research is an important issue not only because *several „marketing communities"* (e.g. market researchers, companies purchasing market studies, teachers and students of marketing) are interested in it, but also because the ability to utilize market researches – interpreted more widely: market information – can ensure important and hard-to-reproduce advantages in building *competitiveness* (Zaltman and Deshpandé 2000; Day and Nedungadi 1994; Menon and Varadarajan 1992).

Several marketing researchers (Piercy and Evans 1983; Barabba and Zaltman 1991; Haeckel October, 1987; Wierenga and Bruggen 2000) have examined the system of relationships between information use and knowledge generation. The problems of distinguishing between information and knowledge and the analysis of the relationship between the two concepts are far *beyond the discipline of marketing*. Nonaka and Takeuchi (1995); Earl, Edwards *et al.* (1997); Davenport and Prusak (1998); Osterloh and Frey (2000), who represent different fields of management sciences (information management, knowledge management, organizational theories), have all investigated the relationships between information and knowledge.

Accordingly, the subject of our thesis, the organizational use of market information (from market research) is interesting *not only* for marketing, but there are several links to other sub-fields of management sciences as well.

In our dissertation, we seek the answer to *several questions*.

In the preliminary studies preceding the core of our research, the large-scale quantitative survey, *one aim was* to explore the modes and dimensions of information use in Hungarian business practice: what is the „destiny" of market studies, what are the – oft not explicitly articulated – motivations behind purchasing market studies. *Another aim was to* determine how much Hungarian companies rely on market research in their marketing activities thus to identify a „research-intensive" circle of companies.

Though the findings of our preliminary studies suggested that Hungarian companies in general are not or only moderately characterized by the extensive use of marketing research, a group of „research-intensive" companies can still be defined. Typical „research intensive" businesses are market leaders or market challengers majority-owned by foreign investors and employing more than 500 employees. The marketing organization of companies emphasizing market research are usually developed and have an area- or product-based structure, and the marketing function is also represented in the board of directors. These firms are characterized by long-term thinking with market share in the forefront, giving special attention to the preliminary analysis, exploration and shaping of the needs of the market.

The series of in-depth interviews preceding the quantitative survey enabled us to get a more detailed picture of the frequently hidden motivations behind purchasing market research services. Though empirical marketing researches into the topic typically examine the utilization of market information as related to decision making rather than to the market learning process, market studies do doubtlessly have a much wider variety of uses as primarily evinced by the typologies created in the field of public policy examining the utilization of political opinion polls in public administration and those published in organizational literature. In the field of marketing, Menon and Wilcox (1994) was the one to develop an instrument that allows the comprehensive, multi-dimensional measuring of the use of market research information – which has actually never been applied by marketing researchers in their later studies. In the framework of our qualitative preliminary studies, we assessed the relevance of the modes of use of information put forward by Menon and Wilcox (1994) and found that all information utilization routines exist. However, we could identify a further information utilization routine which we named self-justification. In this case, the purpose of market research information use is to justify the actions of the Hungarian affiliate in the eyes of the foreign parent company – this very dimension of information use does not appear in the scale of Menon and Wilcox (1994).

Thoughtfully considering the results of the qualitative research, we tried to review the possible reasons why marketing researches do not analyse the phenomenon of market information use comprehensively and why they focus on the instrumental and conceptual uses.

Based on the lessons learned from the series of in-depth interviews, we formulated some methodological recommendations related to sampling and the identification of key informants, which in our judgement are suitable for use in other Hungarian management-related organizational research projects.

The *primary aim* of the dissertation was to create an explanatory model for Hungarian large-scale enterprises' use of information through which we can identify the *most important* factors determining how much marketing managers rely on market researches in decision making and in market learning. We have examined the phenomenon of information use as related to information-related, inter-personal (co-operation between marketing manager and market researcher) and organizational factors by establishing a model that demonstrates a good fit even in international comparison. The development and testing of the model and its constructs was completed in compliance with the strict methodological-statistical procedures applied in international marketing research.

According to our findings, information-related, inter-personal and organizational factors all play an important, explanatory role in the utilization of market research in marketing management work. Two factors, the user trust in the researcher and the quality of the market research – as perceived by the marketing executive – have a *key role*. Other characteristics of the information and inter-personal factors basically affect the utilization of market studies *through* these two key factors, while organizational factors (amongst which we chose job formalization to be analysed) directly influence whether market researches are incorporated into marketing management work.

Our results show that the most important factor affecting the development of marketing managers' *trust* in the researcher is the level of co-operation between marketing manager and market researcher. The more extensive the co-operation between the researcher and the marketing manager, the more the manager will trust the researcher. The development of trust in the researcher is also affected by the marketing executive's judgement of the quality of the study. The better the quality in their eyes, the more they will trust the researcher. Previous studies on the utilization of market research have not analysed how the existence of an internal market researcher position influences the „dynamics" of the trust between marketing manager and external market researcher. We can conclude that at companies where internal market researchers are involved in the preparation of the study, the level of

co-operation between marketing manager and external market researcher plays a more significant role in the development of trust, nevertheless the consequences of perceived research quality on trust cease to exist.

The *quality* of the market research – as perceived by the marketing manager – is the most important factor influencing the utilization of information in decision making. Looking into the „anatomy" of the perception of research quality, we found that it is not information-related factors (amongst which we examined the relationship of research results to expectations and their political acceptability), but rather trust in the researcher which basically determines the quality of the research in the eyes of the manager.

Somewhat contradicting our intuitions, we found that the perception of research quality is a process rather than an event, which practically begins with developing an image of the researcher – just at the very beginning of the research project whilst the output of the research, the study has by far not been completed yet.

Our study is the first one to examine the instrumental (related to decision making) and the conceptual (related to market learning) uses of information – within the framework of a single model – as related to market researches. Whilst instrumental use of information is most affected by the perceived quality of information, what contributes most to the conceptual use of information (learning from the market, acquiring more abstract knowledge, knowledge beyond the factual findings of the study) is if information is utilized in decision making. That is market learning is accomplished through the thorough understanding of data and facts, and their direct incorporation into marketing management work.

Our study is a novelty in research into the topic in several respects. *Never before has a summary* in comparable detail and of a systematizing, state-of-the-art nature been prepared of the empirical literature base of the topic. Another strength of this study is that it is the *first* to examine not only the *instrumental*, but also the *conceptual* use of market researches in the same model, facilitating a more comprehensive understanding of the phenomenon. Related American studies (Zinkhan, Joachimsthaler *et al.* 1987; Moorman, Zaltman *et al.* 1992; Deshpandé and Zaltman 1982/a; Deshpandé 1982/b; Moorman 1995; Moorman, Deshpandé *et al.* 1993) only considered the companies advertising most intensively when identifying the sample, assuming that these are the ones to spend most on market research, as well. Nevertheless, authors regarded this method of sample

identification as a limitation of the study, since they could not get a picture about the mode of action of information use at companies spending less on research. We could overcome this very limitation by considering the entire group of Hungarian large-scale enterprises. Only those companies were excluded from the survey which had not performed a market research in the previous five years at all. Our results – for example that some effects tend to act differently at companies where an independent internal market researcher position exists – lead to the conclusion that surveying only the most research-intensive companies indeed hinders the generalization of the findings. The research also provided us with insight into relationships between the constructs of the model which have not been examined before.

The decisive *local* novelty is that this is the first attempt to „adopt" the – both theoretically and practically important – topic of managerial use of market information into Hungarian research. Though every single Hungarian university and college specialized in business administration has courses in market research and the intensive expansion phase of the market research market, considering its volume, is probably over, we have very little systematized, academic-level knowledge specifically relating to the Hungarian market concerning how research studies are incorporated into marketing management work, what it „depends on" whether executives rely on market research in their work and what „research-intensive" companies may be characterized by. I am hopeful that my work can fill this gap. Strenghts of the study are the completion of the preliminary studies preceding the empirical survey and the capable application of the methodological guidelines followed by „top" marketing periodicals in scale development, in the evaluation of the reliability of the scales and in testing the model.

VII.2. Practical applicability of the research results

It is an evident demand of managers to estimate how much the amounts spent on information (including and beyond market research: informational products like databases, IT applications, industry studies, etc.) actually help management work, how much executives rely on the information purchased. Hungarian companies spent HUF 9 billion on market research in the year 2000, the costs of establishing a CRM (Customer Relationship Management) system for the up-to-date provision of market information with the necessary licences and consulting could add up to several hundred million HUF – thus companies expend enormous amounts

in order to be „well-informed". Both the theories (Menon and Varadarajan, 1992)[47]; Zaltman and Deshpandé, 2000)[48]) and the practical feedback from companies[49] imply that the availability of information is a necessary but not sufficient condition of the use of information.

The development of the instrumentation applied in our study may be helpful in determining the extent to which different informational products are incorporated into management work. What is more, managers could even get a picture of what portion of the market research budget is spent on legitimizing decisions already made or on seeking support for certain decisions against the parent company's will.

More and more consulting companies (for example the Big 4) offer services related to knowledge management (KM) in Hungary, as well. The supply of KM consulting also indicates that Hungarian companies realized that it is a rewarding effort to „manage" intra-company ideas, information and knowledge and they are willing to devote resources to these activities. Yet knowledge can only be managed if one knows the *mechanisms, the motivations* behind the utilization of knowledge and information. Our research analyses a phenomenon that has a much tighter interpretation than KM, but is still closely related to KM. The relationships revealed by the study, the conclusions based on the literature base of the topic and the OTKA database providing the basis of our research and allowing a multi-dimensional examination enables the incorporation of our results into companies' knowledge and information management activities.

VII.3. Limitations of the study

External limitations are related to the fact that our large-scale empirical survey did not investigate market research use only (but also the inter-departmental sharing of market information and marketing-related IT applications), therefore we

[47] According to Menon and Varadarajan (1992), there is „general consensus" that managers do not utilize all available information.

[48] Zaltman and Deshpandé (2000) claimed that the availability of information does not necessarily result in its utilization.

[49] At the conference of the Information Technology Institution of BUESPA, the National Council of Hungary for Information and Communications Technology, the Manager Association and the Bay Zoltán Foundation for Applied Research titled „Telecommunication, information technology and competitiveness" and held on the premises of BUESPA, István Lepsényi, CEO of Knorr Bremse reported that though his company had invested large amounts into the implementation of an integrated information system, the SAP, they had „no idea" about the actual returns of this project.

did not have the opportunity to measure some market research-specific phenomena which could have served the refinement of the study.

It would have been interesting to measure the performance-consequences of the use of market research information, that is to determine whether products launched to satisfy the consumer needs discovered by market research indeed perform better in the market. However, the effect of market research on performance could only have been measured, if we had investigated studies prepared with the same purpose – considering the OTKA research in its entirety, this would not have been feasible.

Another interesting point could have been to ask the supplier of the market research, the external market researcher what he thinks are the factors influencing the utilization of market research findings, yet our multi-purpose questionnaire did not allow such a dyad-like survey.

In order to keep the length of the study within the limits, we had to select from the explanatory variables included in the research (the whole OTKA questionnaire was 10 pages long, 2 of these were devoted to the questions on market research, 2 pages each for IT applications and market intelligence and a further 4 pages for strategic priorities, organizational characteristics and general descriptive characteristics. Similar reasons and the intention to avoid inequalities lead to the USER-scale not being applied in its entirety (18 statements).

We also have to mention the most troublesome internal limitation. Methodological references for measuring the use of market research are only available as related to the instrumental use. There is no widely accepted and applied scale for measuring the conceptual use of market research information, therefore, lacking a benchmark, it is difficult to evaluate the validity of the items applied.

VII.4. Possible directions of future research

Future research may take on different directions.

The database available is suitable for the appropriateness of our model and the fit of the regression equations to be tested on subsamples. Wierenga and Ophuis (1997), in his examination of IT applications supporting marketing management activities, put forward the assumption that explanatory variables affect the phenomenon differently in different industries. Our database – provided that some statistical conditions are fulfilled - enables us to verify whether the same variables

tend to act differently in for example the telecommunications and the wholesale industries, or to explore the differences between the market research information use of companies in consumer (B2C) and in industrial (B2B) markets.

The external validity of our research is strengthened by the fact that we performed a census survey of the companies with a turnover above HUF 4 billion and achieved a response rate of 26 percent. It may be of interest to analyse the phenomenon – within the framework of a later project – using a representative sample of all Hungarian companies.

We have only asked the user-side about their views concerning the use of market researches. Further research may open the door to querying the authors of studies, that is external market researchers, too. This may be completed in two ways. On the one hand, a further database may be prepared where market researchers are asked questions similar to those in our study (irrespectively of whether they had co-operated with the marketing managers in the original database or not). This is the methodology followed by Deshpandé and Zaltman (1984) when analysing the differences between the mental models about the use of market studies in the minds of marketing managers and market researchers. However, a more accurate result may be achieved in a dyad-type research, where marketing manager-market researcher pairs cooperating in a research project are surveyed. Nonetheless, a triade-like survey with the participation of the internal market researcher involved in the project could as well be completed.

Studies on the topic have only considered the utilization of market studies prepared by external market researchers. Though less significant in value and volume, it may still be significant to look at whether the mechanism of the use of market researches prepared using internal resources differs from that of external researches, and if so, how far.

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