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MANAGERIAL USE OF MARKET RESEARCH
INFORMATION, AND ITS INFLUENCING FACTORS
PH.D. DISSERTATION – SELECTION OF THESES

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I. THE AIM AND THE PRECEDENTS OF THE THESES

I.1. Introduction of the Research Topic

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 Gerald Zaltman no, because „in the future, companies’ competitiveness will not primarily depend on how much information they possess, but on *how they can utilize it*” (Zaltman and Deshpandé 2000).

According to Day and Nedungadi (1994) the ability of information use may be a source of competitive advantage. Day and Nedungadi (1994) points out, that the information supply is a mere question of financial resources, therefore the competitors have increasingly the same opportunity to access similar information. However the use of information is a *capability*, which can hardly be copied by the competitors. Even though the question of information use is crucial for the management, Menon and Varadarajan (1992) argue for the systematic under-utilization of the available information.

While as data of PMSZ¹ show, companies in Hungary spent HUF 9 billion (~3.5 million Euros) on market research in the year 2000 and recent years have witnessed the dynamic growth of the Hungarian market research market, which trend is expected to continue, all business schools provide education on market research in some form or other, the coursebooks on methodology becoming more and more modern - we have *little knowledge* about how companies actually utilize research results.

I.2. The Research Question, the Aim of the Study

In the thesis we focus on the organisational use of commissioned market research information.

The *central question* of the research is what are the major factors that determine whether the market research are actually used in marketing management activities – especially in decision making and generating market knowledge. Therefore the aim of the dissertation is to create a model², that brings us closer to understand which factors explain the differences across companies in managerial use of market research use in greatest proportion.

Two preliminary studies was carried out prior to the large scale quantitative study aiming to answer the central research question.

The first preliminary study was a series of in-depth interviews. The aim of this study was to identify the – sometimes not explicitly articulated, hidden - modes and dimensions of managerial use of market research information amongst Hungarian companies; to understand the motivations behind purchasing market research services.

The second preliminary study – based on the database of an OTKA study³ carried out in 2001 - was aiming to circumscribe the „market research intensive” cluster of companies in the Hungarian economy.

¹ PMSZ: Hungarian Association of Market Researchers (Piackutatók Magyarországi Szövetsége)

² The empirical research of the Ph.D. dissertation was carried out within the frames of the OTKA (Hungarian Scientific Research Foundation) research, „Marketing Management Decision Support Systems and the Managerial Use of Market Research Information” project number T037857.

³ „The Marketing Approach, Strategy and Performance of the Hungarian Companies” titled OTKA research, project number T030028.

1.3. The Precedents and Theoretical Background of the Study

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, and the ability to utilize market researches – interpreted more widely: market information – can ensure important and hard-to-copy advantages in building *competitiveness* (Zaltman and Deshpandé 2000; Day and Nedungadi 1994; Menon and Varadarajan 1992), but the topic is also important from a *theoretical* point of view.

Several aspects of the matter of marketing information processing are in the focus of research interest within marketing. Putting the discourse of managerial use of market information in coordinates among the dichotomy of B2B and B2C – we can find 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 connection with consumer information processing.

In connection with the organisational information processing – where the users are managers – two research streams can be recognised. The first stream aims to understand the role of IT systems in marketing management and decision making. (Recognised researchers of the topic: *Rangaswamy*: Rangaswamy, Burke et al., 1986; Rangaswamy, Eliashberg 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, *Wierenga*: Wierenga and Ophuis, 1997; Wierenga and Van Bruggen, 1997; Wierenga and Bruggen, 1998; Wierenga, Bruggen et al., 1999; Wierenga and Bruggen, 2000.) The other – to which my theses are linked – examines the organisational use of market information deriving from market research and market intelligence.

The dominance of research in consumer information processing over organisational information use is well demonstrated by the citation of Wierenga and Bruggen (2000), who find surprising that marketing, the discipline possessing extensive knowledge about consumer information processing *knows hardly anything about the way managers utilize information*.

The first research in the topic of managerial use of market information was published two decades ago (Deshpandé and Zaltman 1982). Since then the topic is a subject of enhanced academic attention, – in which the role of the Marketing Science Institute (MSI), the organisation, that aims to bring the marketing theory and practice closer, should be mentioned. Annually, the MSI identifies the research topics of high priority with the assistance of marketing academics and professionals, and publishes these on the web site www.msi.org. The topic of managerial use of market information was among the top priorities over the last years.

The marketing-theoretical importance of the topic lies in the importance of understanding the „anatomy” of the phenomena market orientation and marketing innovation - two major research streams in marketing.

The organisational use of market information is tightly linked to the topic of market orientation – which has been a research question of central interest over the past ten years (e.g.: Kohli and Jaworski, 1990; Narver and Slater, 1990; Jaworski and Kohli, 1993; Hart and Diamantopoulos, 1993; Slater and Narver, 1995; Hooley, Cox et al. 2000). According to Kohli and Jaworski (1990) – who grounded the discourse – market orientation lays on three pillars: market intelligence generation, intelligence dissemination and organisation-wide responsiveness. The topic of market information use is tightly linked to the third pillar - the organisation wide responsiveness on market information - therefore the in-depth understanding of information use phenomenon might bring closer to the mapping of market

orientation. It is important for market innovation, the production of goods, attractive to the market, how can the R&D managers utilize the information received from the marketing managers, therefore our research can bring novelties and enrich the research stream of marketing innovation.

In our discourse the research have examined different types of information. The *market research* (Deshpandé and Zaltman, 1982,1983, 1984, 1987; Deshpandé, 1982; Deshpandé and Webster, 1989; Hu, 1986; Lee, Acito et al., 1987; Lee, Lindquist et al., 1997; Sinkula, 1990; Moorman, Zaltman et al., 1992; Moorman, Deshpandé et al., 1993; Menon and Wilcox, 1994; Menon and Wilcox, 2001; Zaltman and Moorman, 1988; Zaltman, 1997; Zaltman and Deshpandé, 2000), and the *market intelligence* linked to *a well defined management problem* (e.g.: evaluation of the marketing-communication plan (Low and Mohr, 2001), innovation (Moorman, 1995; Van den Bulte and Moenaert, 1998; Griffin and Hauser, 1992; Rindfleisch and Moorman, 2001) evaluation of marketing programs (Andrews and Smith 1996)) or *shared between marketing and other departments* – (e.g.: R&D (Gupta, Raj et al., 1985; Maltz 2000/a; Maltz and Kohli 2000/b; Griffin and Hauser, 1996), engineering (Fisher and Maltz 1997), accounting (Homburg and Karlhaus 1998), production (Hutt and Speh 1984)) have been the subject of these studies.

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. 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*.

In the studies on information use, authors differentiate between the 1.) *instrumental*, 2.) *conceptual* and 3.) *symbolic* dimensions of information utilization. The *instrumental* mode refers to the decision related use, when the manager directly utilizes 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. This dimension was examined most widely among the three modes in the empirical studies (Deshpandé and Zaltman, 1982, 1983, 1984, 1987; Deshpandé, 1982; 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). In the minor proportion of the empirical studies (Moorman, 1995; Fisher and Maltz, 1997; Maltz, 2000/a; Maltz and Kohli, 2001) *the conceptual use* of market information is also considered. In case of conceptual information use, managers utilize the information in order to understand some problem in detail, as a kind of background information. Considering conceptual information use, market knowledge contributes to the expansion of managers' knowledge base and encourages „joint thinking” within the company. In the studies the *symbolic* information use is also mentioned, however we found only one study (Diamantopulos and Souchon 1998) which regarded this dimension as well. The symbolic use of information 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. The study of Diamantopulos and Souchon (1998) is not only unique because it examines all three dimension within the frames of one single study, but also because of the use of qualitative techniques – in-depth interviews – in contrast with the quantitative mainstream of the discourse. Homburg and Karlhaus (1998) say that a deeper understanding of the phenomenon is prevented by the limited focus of the examination of information utilization, however 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.

After reviewing the independent variables included in the explanatory models of the studies in our topic, several groups of variables can be identified.

Among the factors affecting the use of market information, studies (Deshpandé and Zaltman, 1982, 1983, 1984, 1987; Deshpandé, 1982; Lee, Lindquist et al., 1997; Menon and Wilcox, 1994; Diamantopoulos and Souchon, 1995; Maltz and Kohli, 1996; Homburg and Karlhaus, 1998; Maltz and Kohli, 2001; Low and Mohr, 2001) considered *information-related* antecedents. The most studies regarded the quality- or perceived quality related influencing factors. 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, 1984; Menon and Varadarajan, 1992; Maltz and Kohli, 1996; Homburg and Karlhaus, 1998; Low and Mohr, 2001; Maltz, Souder et al., 2001).

After the meta-analysis of the literature we can conclude that factors, attributes *describing the user* appear in several studies. The organisational and industry- specific experience was included into the models more frequently (Deshpandé, 1982; Perkins and Rao, 1990; Moorman, Zaltman et al., 1992; Moorman, Deshpandé et al., 1993; Homburg and Karlhaus, 1998) among the user-specific factors. These studies brought different results. While Deshpandé and Zaltman (1982) 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 literature review resulted the identification of *interpersonal-type* independent variables in the different studies. This group includes variables like the difference in the job titles of the supplier and the user of information (Maltz and Kohli 1996), the trust between user and supplier (Moorman, Deshpandé et al. 1993); or the common job experience, and joint client visits. Moreover, an important factor considering market information use is that researcher and manager should „speak the same language”. Deshpandé and Zaltman (1982, 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.

The *organizational factors* – as important influencing variables - are also in the focus of researchers. The role of formalization and centralization in the use of market information have received increased attention. According to Deshpandé and Zaltman (1982) and Deshpandé (1982) 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.

Researchers (Menon and Varadarajan, 1992; Maltz and Kohli, 1996; Fisher and Maltz, 1997) investigated factors describing the *environment* of the organisation, more specifically 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.

After the meta-analysis of the studies published in the past ten years, we can conclude that the organisational use of market information is *a complex phenomenon*, which is influenced by attributes of the information, psychological (personal and interpersonal) factors, organisational and environmental antecedents.

The marketing discourse examining the managerial use of market research information obviously goes far *beyond the discipline of marketing*. Nonaka and Takeuchi (1995), Earl, Edwards et al. (1997), Galbraith (1973), Daft and Weick (1984), Daft and Lengel (1984), Tushman and Nadler (1978), Davenport and Prusak (1998) and Osterloh and Frey (2000), who represent different fields of management sciences (information management, knowledge management, organizational theories), have all investigated the use of information and the relationships between information and knowledge.

II. THE METHODOLOGY USED IN THE RESEARCH

The central question of the dissertation and the questions proposed in the preliminary studies are of different nature, therefore the assigned methodologies differ as well.

In *the first preliminary study* – which aims to circumscribe the market research intensive part of the Hungarian economy – we used multivariate statistical methods, namely ANOVA one-way variance analysis. The database of this study was prepared within the frames of a 2001 OTKA study, where five-point Likert-type scales were used to measure the role of market research within the marketing information system. We were eager, whether the role of market research differs significantly across diverse businesses characterised by different descriptive variables (e.g.: number of employees, ownership structure, main field of business, competitive position, etc.) measured with nominal scales. In this case the use of ANOVA variance analysis is adequate, because this method enables us to test the zero hypothesis, that the mean of the metric dependent variable (the role of market research) is equal in the categories created by the nominal descriptive variables.

We got closer to the understanding of the underlying and sometimes hidden motivations behind purchasing market research services using qualitative techniques, in-depth interviews in our *second preliminary study*. The use of qualitative methods enables the in-depth understanding of the phenomenon, and to explore „finenesses” that is impossible to examine with „unpersonal” questionnaires. During the series of in-depth interviews four companies, representing different sectors (FMCG, Bank, Telco and market research providers) were examined, and we carried out one-hour interviews with 7 experts. 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). We used a tape to record the interviews and these recordings were transcribed afterwards, word by word. To identify the modes and dimensions of organisational market research information use we created key categories with coding the texts in multiple phases.

To set up the model answering the central question of our research we applied multivariate statistical methods using a database containing information about large-scale enterprises.

The quarterly database Cégkódtár 2003/I (Business Information Database) of the Hungarian Central Statistical Office (KSH) was used as the sampling frame during the preparation of the database within the framework of an OTKA research during the summer of 2003. The final, returned sample of 254 questionnaires corresponds to a response rate of 26 percent as compared to the potential sample of 972. For the data gathering questionnaires were used, which were posted to the respondents. Prior to this we contacted a part of the companies via e-mail to inquire whether they would participate in our research. All of the non- or late respondent companies were contacted by phone to offer assistance and gain information about the reason of the laggard. We excluded those respondents from our study who did not purchase market research studies during the five years at all, so 154 companies remained. Before our analysis we evaluated the possible non-response errors. We used the methodology of Armstrong and Overton (1977) who claims that the correlations between the speed of response and important descriptive variables (e.g.: industry, number of employees, ownership, etc.) or key variables of the model signs that certain types of business may be difficult to achieve causing systematic errors. 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.

In developing the measurement scales, we adhered to the directions of Curchill (1979), and finalized it in multiple phases. 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. 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, 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. In the second stage of testing, fifth-year REK⁴ students in the faculty of marketing completed the questionnaire. Based on the results of the pretests we modified our research tool. Hypotheses were tested by linear regression, using the statistical software package SPSS 9.0. The constructs used in our model were tested by the methods of Gerbing and Anderson (1988) (assessing unidimensionality, calculating Cronbach alpha, confirmatory factor analysis, examining discriminant validity). Prior to calculating the regression equations we excluded the risk of multicollinearity following the methodology of Mason and Perrow (1973).

⁴ 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.

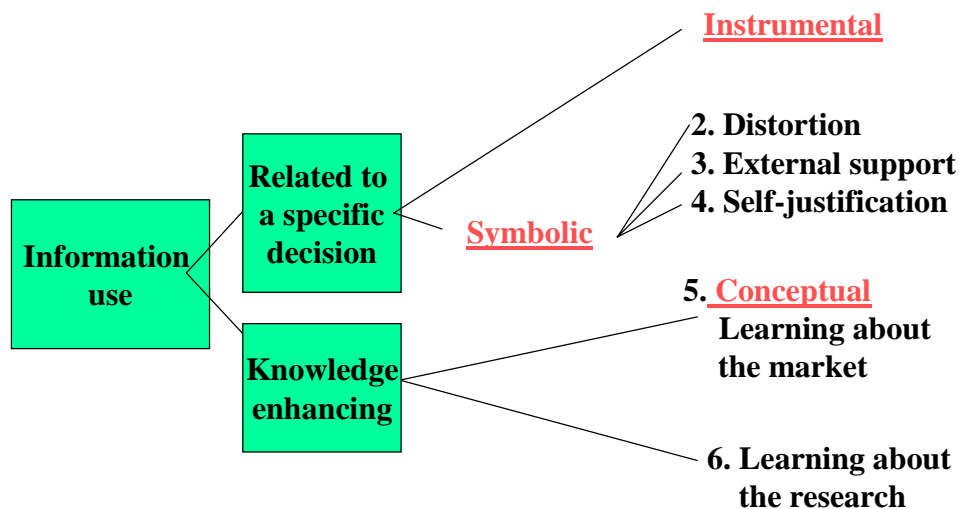
III. MAIN RESULTS OF THE DISSERTATION

III.1. Results of the Preliminary Studies

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.

Figure 1: 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



Our research results provide empirical evidence on the existence of the three dimensions (instrumental, conceptual, symbolic) of market information use. However defining the market research broadly, including not only the information product, but also the research project, we should also mention the tacit, unintentional affect, that the marketing managers not only enhance their market knowledge but also gain market-research specific abilities (e.g.: how to formulate research questions, etc.). In our research we identified further sub-dimensions of symbolic information use.

In case of the mode of information, named „external support”, 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. This dimension of information use is typical in the relation between Hungarian daughter and foreign mother companies. 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.

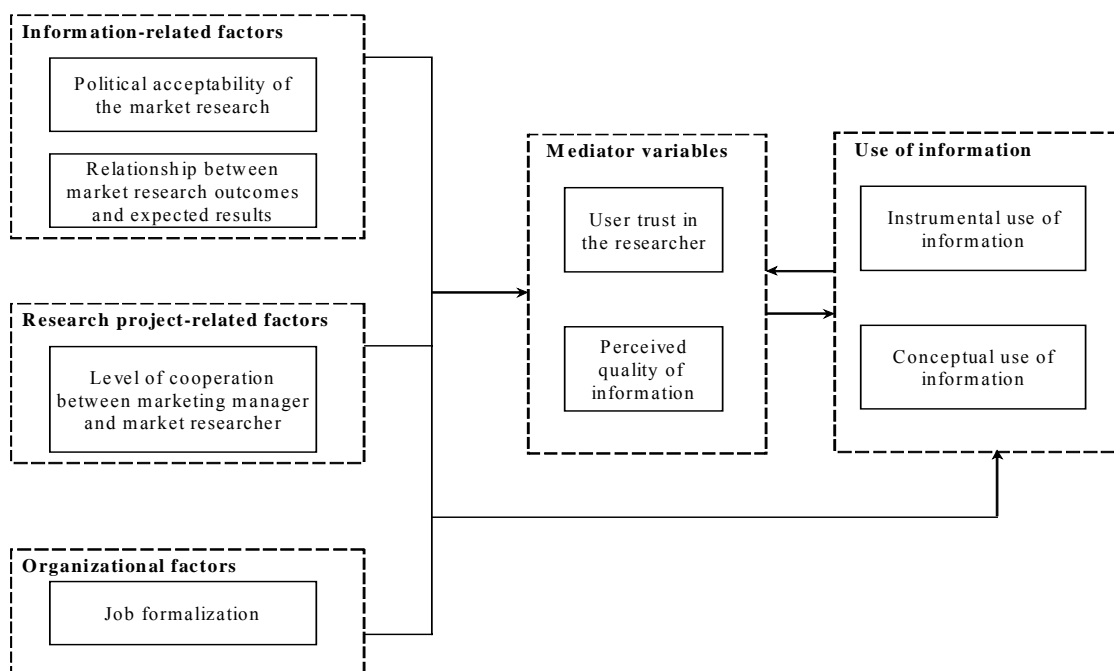
The series of in-depth interviews resulted methodological conclusions - related to identifying the key informants and the sampling unit - that could be applied in the large-scale survey. According to our findings, in case of those companies that are comprised of several divisions and strategic business units, it is more practical to identify the division as the sampling unit instead of the company itself, because within a single company notable differences can be observed in the role of market research within the marketing information system. 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. In those companies where the marketing function is based on brand or are managerial system it is worth surveying the brand managers. We believe that our findings also stand and might be a subject of consideration in other survey-type studies.

III.2. Results of the Central Study

III.2.1. The Structure of the Conceptual Framework

The aim of our study was to identify those factors that explain the differences of market research information use among companies in greatest proportion.

Figure 2 : The conceptual framework



Based on previous studies on the topic, the two constructs of *trust* in the market researcher and *perceived quality of information* have been taken out of the group of independent variables. The reason behind is that these factors are of key importance in understanding the phenomenon of market research information use, and therefore are not direct antecedent variables of information use, but rather behave like *mediator variables* between use of information and its antecedent (or independent) variables.

Our research results support the findings of Moorman, Deshpandé et al. (1993), Maltz and Kohli (1996), and Low and Mohr (2001) who claim that the trust and the perceived quality of information are central concepts of information use, therefore it was correct to configure the model this way. 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.

III.2.2. The Dynamics of Trust in the Market Researcher

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) and 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. The factor that most affects the managerial trust in researcher is the level and intensity of co-operation during the research project. We also examined the relationship between trust and the counter-intuitiveness of the market research study. Due to our results the less counter-intuitive a market research study the more the manager trusts in the researcher. This is in line with the results of Moorman, Deshpandé et al. (1993), who found a positive significant relationship between the researcher’s ability to reduce uncertainty and the manager’s trust in the researcher. According to our findings the perceived quality of market research affects positively the managerial trust in the researcher.

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. Our result also means that the relationship between information quality and trust in the information provider holds true in other contexts (marketing manager and market researcher), as well.

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 is affected by the existence or non-existence of such a position in the organization. Our results 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 trust is significantly below the average if the internal market researcher position exists within the company. Due to our results 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.

III.2.3. Dynamics of the Development of Perceived Information Quality

The perceived quality of information is significantly affected by characteristics of the research - the magnitude of findings' surprise and its political acceptability. Accordingly we proposed that the managers perceive of Shannon and Weaver (1949) that one of the most important attributes of information is its ability to reduce uncertainty. We verified the hypothesis, that the more research findings correspond to expected results, the better the quality of the study in the eyes of the executives. According to our results 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.

The most significant influencing factors of the perception of information quality are, somewhat contradicting one's intuitions, not information-related factors. 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.

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 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.

III.2.4. Instrumental and Conceptual Use of Information

According to our findings, information-related and research project-related (interpersonal) factors *do not affect* the use of information *directly, only through the mediator variables*.

It is apparent that based on our results, *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: 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.

Organizational configuration, is a factor influencing the utilization of information. While Deshpandé and Zaltman (1982, 1983, 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 (e.g.: 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 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.

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*.

IV. NOVELTY OF THE RESEARCH, PRACTICAL APPLICABILITY AND POSSIBLE FUTURE RESEARCH DIRECTIONS

IV.1. Novelty of the Research

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 previous research (Zinkhan, Joachimsthaler et al., 1987; Moorman, Zaltman et al., 1992; Deshpandé and Zaltman, 1982; Deshpandé, 1982; 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. Strengths 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.

IV.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 licenses 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, 1992⁵; Zaltman and Deshpandé, 2000⁶) and the practical feedback from companies⁷ 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.

IV.3. 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

⁵ According to Menon and Varadarajan (1992), there is „general consensus” that managers do not utilize all available information.

⁶ Zaltman and Deshpandé (2000) claimed that the availability of information does not necessarily result in its utilization

⁷ 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.

those in our study (irrespective 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.

V. PUBLICATIONS OF THE AUTHOR RELATED TO THE TOPIC

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