



**Management and Business  
Administration Doctoral School**

## **SUMMARY OF THESES**

**for**

**Esse Bálint**

**Clever Decisions**

**Heuristical Steps In Supplier Selection Decisions**

Ph.D. dissertation

**Supervisor:**

**Wimmer Ágnes, Ph.D.**  
associate professor

Budapest, 2012

**Department of Decision Sciences**

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## 1. Background of research and justification of the topic

In my Ph.D. thesis I aim at exploring the cognitive level of supplier selection decisions. The keyword is *heuristics*: these are simplifying rules, rules of thumb, that can make decision making faster and more simple. I call heuristical decision making *clever*, to express my positive point of view to heuristics. In this thesis I am searching for simplifying rules in individual decision making processes. I approach this topic from decision science side, this is my point of view. I analyse how does one reach a decision and by using what criteria and strategies.

The example is the supplier selection problem, the case of individual decisions without a prescriptive purchasing manual. These decisions are repeated continuously, there are theoretical optimizing models for this problem, the criteria can be identified easier as in other, more subjective (for example HR) decisions. These were the main reasons for choosing this decision, as example. The research was done on SME-s, because in their case can we talk about unbounded individual thinking algorithms, what is suitable for such study.

There are two topics that caught my attention: the question of sticking to rationality and the using of simplifying decision rules. The question is, what heuristical processes can be found in the thinking process, what steps do decision makers use to make their decision making more simple. I call *heuristical step* the using of specific cognitive heuristic and also using of heuristic decision strategies – decision strategies that deviate from thorough analysis. I am also interested in how does the decision maker feel and think about using these tools. I am curious about the background of using these tools. The main question in one sentence is: what cognitive shortcuts do decision makers use in supplier selection decisions and how do they evaluate this?

I believe that by answering these questions I can provide new knowledge to more fields. The behavioral aspects of purchasing is still not a deeply researched area. Most of the literature on supplier selection deals with optimizing models, the effectiveness of the material and information processes, but the behavioral aspect can still be characterised as abandoned (Carter and Kauffman, 2007). By conducting this research I contribute to the behavioral area of this field.

There are two main positions on heuristics in the decision making literature. In psychology, the dominant research program dealing with simplification is the heuristics and biases (Tversky and Kahneman, 1974) research program, which emerged from the bounded rationality theory. Later

on, the two points of view began to appear: one side focuses on the possible mistakes of heuristics (this is the original direction mentioned above), the other the potential in these tools of mind (Gigerenzer, 2007). Both programs accept though, that heuristics lead to good results and are effective. The differences are in the focus: the possible mistakes or the positive potential.

These programs analyse the human behavior when facing probability judgement problems dominantly in experimental situations, usually testing specific heuristics in binary decision situations. There are few, that would search for simple strategies in reports from real decision making processes. After reviewing the literature I assume that by searching not only for specific heuristics, but all the simple strategies (for example heuristic decision strategies<sup>1</sup>) of human mind, and by analysing this in real world business decision situations, I can enrich the field by the generated knowledge. Also, the negative or positive view of these strategies is theoretical: they are viewed as good or bad compared to certain concepts of rationality. There is little known about what does the decision maker think when using these, how does he feel about it. How does he explain their usage, does he use these with ease or with tension?

I have conducted a qualitative study, an interpretative one, using the grounded theory methodology<sup>2</sup> as frame. In the interpretative paradigm there is no hypotheses testing, and this is true for grounded theory as methodology. Therefore I formulate research questions only.

***Research question A:*** *How does the cognitive process of supplier selection decision look like?*

This research is descriptive and interpretative in character. I would like to understand what is in the head of the decision maker. What conscious processes run when selecting a supplier? Most of the decision making research focuses on the result of this process. I am interested in the process. My objective is to explore the decision strategies used, to identify the simplifying steps and their context. That is why I divided the question into the three following:

***QAI.:*** *What judgement model, what decision strategies do individual decision makers use?*

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<sup>1</sup> We consider every decision strategy as heuristical, if it does not result in decision through considering all information on all criteria. An example of heuristic decision strategy is the lexicographic decision rule. The decision maker compares the alternatives on the most important criteria, and chooses the best. He considers the second most important criterion only if there is a draw.

<sup>2</sup> Grounded theory methodology is a methodology building on constant comparison and theoretical sampling in an iterative manner. For further reading see Glaser and Strauss (1967) and later.

*QA2.: What heuristical steps (stopping rules, heuristical decision strategies, thresholds etc.) can be identified in the process, and in what phase of the process are they used?*

*QA3.: How can be the environment, in which the decision maker uses these heuristical steps, be characterised?*

**Research question B:** *What is the attitude of the individual towards the rationality of the process?*

What does rationality mean to the individual? Is there a definition of some kind of rationality in his mind? Is he trying to adhere to it? I am asking these questions to get to know which attitude does the decision maker use these heuristical tools. What is this attitude like compared to the positive and negative approaches in literature? It was my aim to identify what form of rationality do the reports of decision makers indicate, to what ideal do they try to stick to. If they use heuristical processes, how do they accept it.

*QB1.: How does the individual interpret what the literature calls rationality, rational decision making? How specific is this interpretation?*

*QB2.: Does the decision maker adhere to any kind of rationality ideal interpreted by him?*

*QB3.: If the individual uses any kind of not formally rational decision strategy, what is his attitude to this? Does he consider these as positive, effective tools or a kind of necessary bad?*

## **2. Research Methodology**

The research I have conducted is interpretative, more precisely I approached the topic with a constructivist approach. The Grounded Theory Methodology (Glaser and Strauss, 1967) is used as methodology, in its evolved, constructivist form (Charmaz, 2006). This methodology lets the substantive theory of a field to emerge in an iterative process. Its basic principles are the constant comparison and theoretical sampling. These two processes ensure the connection between data generated and gathered and the results. These are also the ongoing processes which indicate the direction of the iterative process of this research. GTM is resulting in a substantive theory, what is somewhere in between minor hypotheses and grand theory (Glaser and Strauss, 1967). The

main characteristics of GTM is, that data generation<sup>3</sup> and data analysis are not separated phases of research, but these are done parallelly. The process of the conducted research is shown on figure 1.

Semistructured qualitative interviews are used as data generating research methods. Elements of Verbal Protocol Analysis (VPA) and Ethnographic Decision Modeling (EDM) are the process-tracing research methods that are used embedded in the interviews and give it the structure.

The interviews are semistructured, I approached with very few questions prepared in advance, and more questions – leading and clearing ones – have emerged during the interviews. The interviews are subjectivist qualitative interviews, because it focuses on the perceptions and meanings of the interviewees. The interview string is an evolving construct in GTM: during the research process, the theory is slowly emerging, categories and connections between categories appear and further questions are needed to shed light on connections or categories which are not yet clear. This way new, more precise questions are integrated into the interview strings. In the first interviews, only two-three open-ended questions were prepared, in the last interview there were nine questions.

VPA is a process-tracing method, stemming from the information-processing approach to decision making. The essence of VPA is that the researcher asks the subject to give a continuous verbal report while doing the tasks, so simply to think aloud. These reports are handled as the protocols of the individuals behavior. (Payne and Bettman, 2004)

From the EDM method the so called *contrastive questioning* is used. This is the form of asking the subject, if he chose alternative A from A and B, what should change to choose rather B. There is significant potential in this form of asking, knowledge about criteria and tradeoffs can be gained.

Knowledge about the decision process in general, about their evaluation of their decision-making processes were gained from the interviews, but the main part of the interviews (and most of the interview time) were structured by using VPA and EDM on supplier selection decisions of two inputs.

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<sup>3</sup> Term generation is better in this research paradigm, than data gathering. Using the term gathering could suggest that data is independent from the researcher, and that it exists „somewhere out there”. Instead, data is generated in the interactions of researcher and the interviewees.

**Figure 1. The research process**

<b>Number of interview</b>	1	2	3	4	5	6	7	8	9	10	11	12
<b>Date</b>	8th of June, 2011.											
<b>Theoretical sampling (subjects)</b>	SME with manual	Large company	without prescribed process	SME	young decision makers							
<b>Theoretical sampling (questions)</b>	1 open ended, then few additional questions	First redesign of interview	More questions lead by new categories (adaptation, fit)	Further questions: (decisions in the past and now, evolution)	10-12 open-ended (additional questions on evolution)							
<b>Constant comparison</b>	Initial concept base (35 labels)	First recoding,	Adjusting concept range	Recoding (49 concepts)	Recoding (112)							
<b>Emergence of the core category (potential core categories)</b>		metalevel, fit, adapting	attitudes and fit	attitude set, learning, fit								



The interviews were recorded and transcribed. Transcriptions were converted to the proper text file format and then analyzed with the TAMS Analyzer<sup>4</sup> software. This is an open-source software developed for qualitative data analysis of texts by building codes and code sets. This way I handled the text files of all the interviews as one project with common code base.

**Coding** was used as data analysis method. I used the three levels of coding in GTM: open, axial and selective coding. Paralelly with coding process I continued to write the so called **memo** file, what I used also as research diary. This is an important tool in following the research process, a document which, in fact, gives the basis for the emerging substantive theory. The process of thought, important illuminations and the construction of knowledge about the phenomenon is followed here. Data analysis goes on parelley with data generation and indicates the point, to which research should continue, in my case how many more interviews to conduct, whith who and what questions to ask. One can find heuristics for stopping in research (to conduct 8-20 interviews, other indicate the rule of twelve interviews (Goulding, 1999)), but there can be no such rule: the terminating point is the point of theoretical saturation. I have reached a point after twelve interviews, where further questions would direct outside from my research focus and the relationships seemed to be saturated.

As it is shown in figure 1., I have conducted twelve in-depth interviews. The stopping rule of data generation is saturation: the researcher continues with the process until the relationships and categories are theoretically saturated. This saturation means, that further interviews do not strengthen or enlight new relationships, no change in the generated theory would happen at this level.

As I was looking for individual decision processes, I conducted the interviews with decision makers from small and medium sized enterprises. The logic of sampling in GTM is led by *theoretical sampling*: the first interview(s) shows with whom and about what should the interviews be. This way the first interviews are the most open ones, with fewest questions. I followed this way: the first interview was done at a regulated SME, the second at a large company, and after these did I turn to only SME-s (see Figure 1.)

The classical criteria for research quality (internal and external validity, reliability, generalizability) can not, or only to a very limited degree, be fulfilled in an interpretative

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4 TAMS - Text Analysis Markup System, © Apple Computer, AGRegex is © Aram Greenman, PCRE Library is © Philip Hazel.

research. This is due to what is claimed on the knowable, the „reality” and the relationship of the researcher and the subject in interpretative paradigms.

That is why in such research the criteria are reevaluated and new criteria emerge: the credibility, confirmability, dependability and transferability. All these are a pair of the classical positivist criteria. To meet these requirements, I used the basic principles of GTM and other activities: recording the interviews, avoiding qualifying statements, gestures or questions, blind coding (coding of interview parts by another researcher, then discussing), constant comparisons, theoretical sampling, on site checking of my understanding.

### **3. Empirical results**

The grounded theory process results in a middle ground theory about the phenomena researched. In the coding process a core category emerges, which then gives the backbone for the theory created. Theoretically, there is always a core category, and it emerges naturally as this category has the most connections with others. There is always a category during the research process, which seems to be a good candidate to be core category, and also it can change as other categories begin to show more connections. In this section I present how I have come from the initial research interest (simple decision rules) to the metastructure as potential core category, then finally arriving at the attitude set, as being the core connected strongly to the metastructure. I have held the initial interest in simplifying. Emergence of other topics does not change the research questions, but keeping those lets emphasizing of categories which explain the area of interest and the connections of different phenomena, thus allowing answering the research questions.

#### **3.1. The metastructure**

Many examples of adaptation can be found in the interviews, when subjects talk about how their decision making process depends on different contextual factors. These are decisions about decisions (because deciding how to decide is different from filtering the options and choosing). These are called also secondary decisions or metadecisions. A metadecision is for example ranking the criteria according to significance, or the number of alternatives one wants to collect, choosing a search stopping rule, and also choosing the decision strategy. I call the results of

these decisions *metarules* (for example in market x in situation x collecting n alternatives is enough), and the set of these rules as *metastructure*. Here are those decision rules, stopping rules, rules of thumb, that do not function inside the decision making process, but adapting to the situation and contextual factors they define the design of the decision process. There are plenty of heuristical rules in this structure.

### 3.2. The attitude set

In the research questions I have inserted one question on the attitude towards the usage of simple rules. But from the first interview I got many attitude statements even without asking such question, and not only about simple rules, but about search, information volume etc. I had not expected this in advance. Because other phenomena (for example incidents from the past, learning) also showed strong connections with these attitudes, and were connected with simplifying, eventually the *attitude set* became the core category.

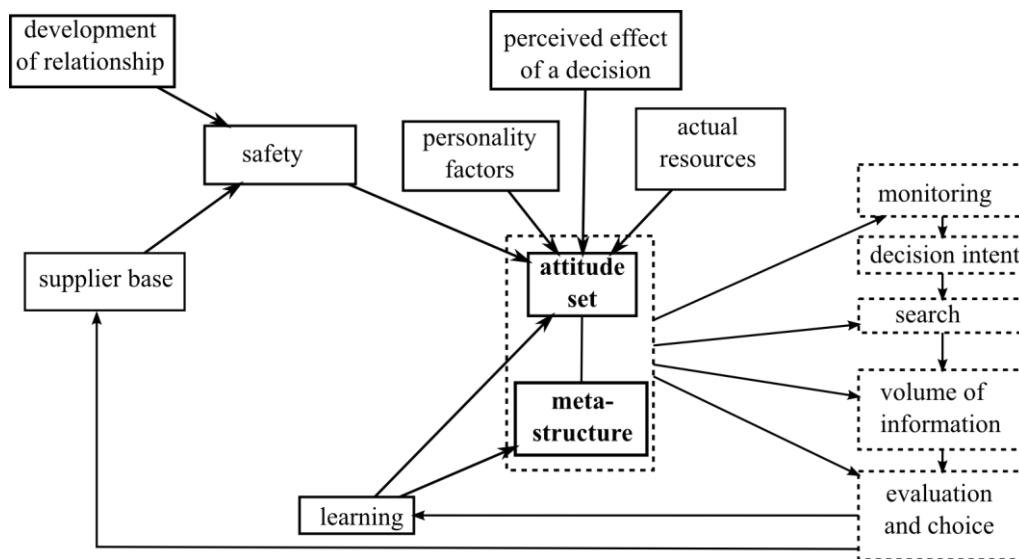
The attitude set seems to determine the metastructure, and many other factors affect the metastructure through the attitude set. It is hard to enlight the nature of connection between the attitude set and the metastructure, but it appears plausible that they are in phenomenon – strategy relationship (so the attitude set is shaped and it evolves, and the decision maker builds strategies according to this evolving set and these strategies are saved to the metastructure).

I handle these two categories as being the core category (a kind of adaptive mechanism), with more emphasis on the attitude set. The role of attitudes in adaptivity appears in their wider definitions: attitudes are mental tool that facilitate the adaptation to the environment (Ajzen, 2001).

### 3.3. The relationships uncovered

The simplified set of uncovered relationships is shown in figure 1. Here I present only a short description of the relationships between categories, in more detailed form it can be found in the thesis. This figure is the result of the data analysis process: I had conducted the coding, then created categories and iteratively searched for connections.

**Figure 2. The model of revealed relationships between categories**



Source: authors own construction

In the centre is the core category of the attitude set and metastructure. This ensures the adaptivity of the decision making. On the right, the categories of the steps of decision process can be found, which are shaped by the core category: what decision strategies to use, when to stop a process, what strategy to use in search and so on.

After a supplier selection process, the supplier base evolves, what provides a level of perceived safety. This feeling of safety shapes then the attitudes again, with which the decision maker enters his next decision tasks. This is indicated on the left side in figure 1.

During the decision process the individual gets feedback about the results of his strategies, and through a learning process this shapes the core category. New rules embed into the metastructure, but only those, which are supported by an attitude from the attitude set (what is also shaped by learning). The core category is evolving in this continuous process, and in an ideal case results in better and more effective decision processes.

### 3.4. Empirical results structured by research questions

In this section I summarize the research results structured by the research questions, and after that I present some additional thoughts which have emerged during the GT process. As the two main research questions were divided into three subquestions, I answer these subquestions only, because the subquestions are not additional ones, but the main question divided.

*QA1. What judgement model, what decision strategies do individual decision makers use?*

In the supplier selection decision processes of SME-s, compensatory and noncompensatory rules are used mixed. Both have their specific place (decision phase) in the process. Noncompensatory rules are used on the qualifying criteria (for example geographical proximity, quality), while on other criteria decision makers use compensatory strategies. In cases of urgency, usage of noncompensatory rules is typical, decisions can be made even according to one criterion. The most commonly used strategies are the evaluation by aspects, the lexicographic rule and the weighted additive model.

*QA2. What heuristical steps (stopping rules, heuristical decision strategies, thresholds etc.) can be identified in the process, and in what phase of the process are they used?*

There are three decision processes that can be called heuristical: the use of cognitive heuristics, the heuristical decision strategies and the rules in the metastructure.

Heuristical decision strategies are the lexicographic and similar strategies, because using these require less cognitive effort and the decision is faster.

In the metastructure, there are rules that define the decision parameters (for example the sufficient number of alternatives, waiting heuristics) which prevent endless search and analysis.

From the cognitive heuristics and biases I have found examples on availability, representativity heuristics, or the bias of sunk costs.

I found that the most of the simple rules are not applied in the final evaluating phase, but during the search for alternatives and information. By finding out the role of metastructure and the supporting role of the attitude set, I have learned a lot about decision strategy selection and the effects of personality traits. The attitude set is crucial in determining the level of simplifying, their form and tools.

*QA3. How can be the environment, in which the decision maker uses these heuristical steps, be characterised?*

Heuristical steps are used mainly because of lack of time and resources. There is less search, and the set of alternatives is cut smaller when the product is standard and the market reacts fast, this way one can get the same product and does not have to worry about the price. In cases of high uncertainty the search within the known suppliers is preferred, to reach safety. The actual state of the firm and its resources affect the level of optimization or simplifying, there are „bounded organizational capacities” similar to bounded cognitive capacities.

In part B of my research questions I was curious about the attitude of the decision maker towards an ideal of rationality, or else. This is not the same, as the core category: this attitude was only concluded from remarks of decision makers, but the attitude set is their attitudes that they shared about different aspects of decision process. Here I answer the first interpretation.

***QB1.** How does the individual interpret what the literature calls rationality, rational decision making? How specific is this interpretation?*

There were subjects who used „the best”, or the „proper” and similar expressions, but in context these were *the best accepting the burdens*. Generally we can say that subjects approach their decision making with accepting their boundedness, saying that it could be done better and there might be better options in the market. It is hard to distinguish, which of the two strategies it is from what Herbert Simon mentions: the satisficing or approximate optimization, but it is clear that according to the reports the theory of bounded rationality describes the subjects decision making most precisely. Because of the adaptivity to the context, the view of rational analysis theory describes the processes correctly, but not in the strict way this theory deals with adaptation.

***QB2.** Does the decision maker adhere to any kind of rationality ideal interpreted by him?*

A kind of a measure does exist in the minds of decision maker. Some of them mentioned that decisions could be made better, but they did not show any struggle to stick to this ideal or reach it, not even those, who mentioned this. They adapt their expectations to their resources and if their business goes on, they do not feel the incentive to do it other ways. It can be generally observed that they are trying to maximize safety, and try to reach the best option but with satisficing.

*QB3.: If the individual uses any kind of not formally rational decision strategy, what is his attitude to this? Does he consider these as positive, effective tools or a kind of necessary bad?*

Decision makers approach the use of heuristical steps with a high level of acceptance. I have not observed any negative attitude towards these tools. There are more stronger attitudes (that created the attitude set) towards different aspects of decision process, for example a strong negative attitude toward information overload, and because of this the decision maker uses a rule of thumb. If he even has an attitude toward the tool, there is always a justification he can mention, and it is hard to decide whether it is real or it only mitigates the tension stemming from using these tools.

Further explications of the structured research results follow according to the net of connections, which is the result of the grounded theory methodology process. Further knowledge was gained, the elements of which connect closely or loose to the research questions. This middle range theory clearly shows also, to what directions could further research continue.

While analysing the decision criteria and decision strategies it appeared clearly, that criteria have more or less stable place and function in the decision process. I have divided the process to three stages, where there are typically used decision strategies. There is a first stage of decision making, which is so fast and natural, that it seems if the decision makers did not even considered this stage for the part of the decision process. One can not say that decision makers use solely compensatory or noncompensatory decision strategies, rather both, or a mixed variation. This division of supplier selection decision to three stages helps us in understanding the rankings of supplier selection criteria.

In most cases there are simplifying steps in decision processes. These can be divided into two groups: the **metadecisions** and the **decision strategies** applied in the process. I had focused on the latter before conducting my research. I have found examples for these strategies – heuristical decision rules and cognitive heuristics – in the reports of the subjects.

Finding cognitive heuristics is hard. I have managed to identify some cases, but because these are fast probability judgements, and I think the disadvantages of retrospective protocol analysis have appeared here the most.

The other field in simplifying, the metadecisions have emerged during the research process. It became evident, that this aspect – so not the decision steps withing a decision, but decisions about decisions – provide possibilities for simplyfing. Individuals learn how to fit decisions to the environmental, contextual factors, and the result of it is, that in a repeating task they decide faster. There is no deciding how to decide, only parametres (for example when to stop search, how many alternatives to collect, which criteria to consider) are fit to the cues of the situation, what is a lot faster. This learning happens in its fastest pace in the beginning of decision making practice. The cumulation of situation – parametres pairs support faster decision making.

I think that in many cases this fitting enhance faster decision making more, than heuristical decision strategies applied to the final three or four alternatives. However, it is not easy to distinguish between strategies and metadecisions. For example a lexicographic rule includes both: weighting the criteria is a metadecision, the rule of selecting is a decision strategy.

The metastructure is a part of an adaptive mechanism. The other category, that have emerged as being core category, was the **attitude set**, which is strongly connected to the metastructure. The metastructure in my interpretation is rather the cognitive level of adaptation, while the attitude set is not only cognitive, because it includes also emotional elements. It seems that in the metastructure only those metarules are included, that are supported by an attitude. The attitude set this way moderates the learning – metastructure relationship, for example a strong analyst and an intuitive decision maker interpret the results in different ways, and different elements are strengthened in the two elements of the core category.

According to these one can see that the adaptation (or its result, the fit) is not solely a cognitive, but also an emotional process. I consider this as important, because there is plenty of literature on emotions in decisions, but in this case the emotions affect the metalevel, so the way how we will make our decisions.

The attitude set determines also, in what way does the decision maker simplify and in what part of the decision process. One can observe attitudes towards evaluation, search, volume of information, error. These attitudes affect what heuristics will be used in the decision process or on metalevel, and what the decision process will look like. The attitude set determines what kind of simplifications will be used and when. This means that the satisficing is not general for the whole decision process, but depending on the attitude set in the phase of search, evaluation or choice or elsewhere.



The attitude set is in connection with personality traits. The set is shaped by age, past roles, stories. These have emerged in the interviews, and although there is a strong suspicion that personality traits are behind these, they did not emerge in the interviews. However it seems evident that different attitude sets varying from person to person result in different decision processes. If this is true, then decision makers will handle time pressure and complexity in different ways, they would also need different kinds of decision support tools.

There are two points we can make here: satisficing strategies are not general in a case of a decision maker, but can be present in different elements of decision making process. The other point is, that the abilities or the readiness to make decisions in a heuristical way varies from person to person.

If there exist decision situations or environments where this kind of decision making seems as wanted, these points are important in delegation, and also in forming groups.

I was also interested in the ideal or construct, using which the decision maker evaluates his decision process. My expectation was that there might be a tension in the individual, if he deviates from some ideal, and he needs to mitigate it. It appears from the results that the ideals are refined through experience and context, and they are stored in the attitude set. When the decision maker can make his decisions according to his attitude set, there is no tension, and vice versa. In case of a decision, they do not compare to an abstract ideal, but to the attitude set.

### 3.5. Further research directions

In case of research projects conducted using GTM the further directions are defined by theoretical sampling and constant comparison. These direct the research into territories – those subjects and those questions – that help bringing the substantive theory onto a more general level. They also help in elaborating connections found and also in exploring topics originally out of the scope of research.

One direction is clearly the **practice of large companies**. In that domain, findings will differ from those found in the SME sector. I find it really interesting to explore the relation between individual metastructure and prescribed procedures, as organisational metastructures.

In a regulated environment it would be fascinating to examine the **potential of using simplifications**. It would be fruitful to find out more about attitudes towards regulations and also the chances of heuristics to be successful in such environment.

The research stream on heuristics has also a goal to build **simple decision support tools** on heuristics. It is a knowledge management question, how to integrate heuristical processes and context-specific metarules into these tools. This, I think, is a relevant question for large companies.

In the research presented here, most of the attitudes and metarules were connected to stopping the search, and to the volume of information. As the question of **age and experience** has emerged because of these, it could be worth also to examine the question of age and **capabilities**. The central category, the **attitude set and its formation** is the next possible research direction. Studies up to this point have failed to show significant connection between personality traits and heuristical, simplifying decision steps. I formulate a few recommendations on this stream at the end of the thesis. Also the formation and building of the **meta level** is a promising research topic. The connection of the cognitive processes of decision making and firm **performance** is met by high interest from managers.

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## 5. Publications of the author in the field

### Publications in foreign languages:

#### *Journal article:*

Esse, B. – Szanto, R. – Wimmer, A. (2012, elfogadott, megjelenés alatt): Business relationships and relationships with stakeholders – Perception of Hungarian executives. *IMP Journal*

#### *Conference presentations:*

Esse Bálint - Szántó Richárd - Dr. Wimmer Ágnes (2011): Value creation in the light of the stakeholder approach – the case of Hungary. 1st Interdisciplinary Conference on Stakeholders, Resources and Value Creation. 2011. június 7-8., Barcelona, Spanyolország.

Mandják, T. – Wimmer, Á. – Esse Bálint (2010): Perception and Practice of Supplier Relationship Management. IMP Group conference, Budapest, 2010. sept. 2-4.

Esse, B. (2010): Research Methods for Decision Criteria Analysis. IMP Group conference, Budapest, 2010. sept. 2-4.

Esse, B. (2008): Kritériá rozhodovania pri výbere dodávateľa. Mezinárodní Bařova konference pro doktorandy a mladé vedecké pracovníky. Zlín, 2008 április 10.

### Publications in Hungarian:

#### *Book parts:*

Esse, B. (2012 megjelenés alatt): Elmés döntések. Szállítókiválasztási döntések heurisztikus folyamatai. Az MTA Logisztikai Bizottságának tanulmánykötete. Szerk. Turcsányi Károly.

#### *Journal article:*

Esse Balint (2011): Gondolkodásegyszerősítő stratégiák hatékonysága.

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#### *Book part:*

Esse, B. (2008): A döntés-előkészítés technikái. In Szántó-Wimmer-Zoltayné (szerk): Döntési technikák. Tankönyv, Döntéselmélet Tanszék. pp. 87-117.

#### *Conference presentations:*

Wimmer, Á. – Esse Bálint (2010): Beszállítók és vevők kapcsolata – Észlelés és gyakorlat az üzleti kapcsolatok menedzsmentjében. Előadás a Magyar Logisztikai, Beszerzési és Készletezési Társaság éves kongresszusán, 2010. november 10-12.

Esse, B. (2009): Vezetői döntések – döntési szempontok elemzési módszerei. Selye János Egyetem 1. Tudományos Konferenciája, Komárno, 2009. szeptember 7-8.

*Working papers:*

Esse, B. (2011): A beszállító-kiválasztási folyamat szerepe es stratégiái.

Műhelytanulmány. TAMOP-4.2.1/B-09/1/KMR-2010-0005 projekt, „A nemzetközi gazdasági folyamatok es a hazai üzleti szféra versenyképessége” kutatási alprojekt, „Az üzleti szféra és a versenyképesség” műhely, Vállalatközi Kapcsolatok csoport.

Esse, B. (2008): A beszállító-kiválasztási döntés szempontjai. Műhelytanulmány, Vállalatgazdaságtan Intézet, Budapesti Corvinus Egyetem.