

DECISION-MAKING IN REAL ESTATE CONDOMINIUM BUYERS' DECISION PROCESS & THE IMPACT OF FINANCIAL INFORMATION

Abstract: In today's society, people put more and more faith to experts and the opinions of experts are the foundation for many important decisions. One of those is that buyers listen to the realtor when buying a home. For many, buying a home is the biggest private investment in life and many choose to buy condominiums. Condominiums are a growing form of housing in Sweden and there are important factors to consider when deciding which one to buy. One factors to consider is the financial situation of the condominium association. Despite this, studies have not found support for that customers actually do value it. Potential buyers seem to rely solely on the realtor's opinion and many feel uncertain about how annual reports are to be interpreted.

This thesis set out to contribute with an understanding about (1) how condominium buyers make decisions, and (2) if presenting the financial information of the association in a more easily understandable way can impact buyers' decision-making processes. This was researched in two experimental studies using verbal protocols.

Results showed that buyers searched for information in a certain order and that there were specific attributes that were more important than others. The most important piece of information was the brokerage prospectus and most buyers set their final decision to buy after they examined it. The financial information of the association did not affect the decision for most individuals unless it was presented in an easily understandable way. Thus, there were indications that buyers could be helped in their decision-making process through presentation format of financial information. Also, indications of dominance structuring in the decision-making process were found. Finally, a model for condominium buyers' decision-making process was proposed.

Key words: Decision-making process, condominiums, verbal protocols, non-experts

Author: Amanda Lindblom 50123

Supervisor: Patric Andersson

Defense: December 2015-12-15

BIBLIOGRAPHY

1. INTRODUCTION	4
1.1 BACKGROUND	4
1.1.1 <i>A Condominium - An Economic Entity</i>	5
1.2 PROBLEM AREA	7
1.3 PURPOSE OF STUDY & RESEARCH QUESTION	9
1.4 INTENDED KNOWLEDGE CONTRIBUTION	10
1.5 DELIMITATIONS	11
1.6 THESIS OUTLINE	12
2. LITERATURE BACKGROUND	13
2.1 ORGANIZATION & THE EXPERT SOCIETY	13
2.2 THEORETICAL DECISION-MAKING MODEL.....	15
2.2.1 <i>Montgomery's Search for Dominance Structure (SDS)</i>	17
2.3 NON-EXPERT RESEARCH	19
2.4 PRESENTATION FORMAT RESEARCH.....	22
2.5 OVERVIEW OF PREVIOUS STUDIES OF CONDOMINIUM BUYERS' & THE ASSOCIATIONS FINANCIAL SITUATION.....	24
3. METHODOLOGY	27
3.1 CONSIDERATIONS OF ALTERNATIVE METHODS	27
3.2 VERBAL PROTOCOLS.....	29
3.3 DATA QUALITY	30
3.3.1 <i>Reliability</i>	30
3.3.2 <i>Internal & External Validity</i>	31
3.4 PARTICIPANTS.....	33
3.5 STUDY MATERIAL	33
3.6 PROCEDURE	35
3.7 CODIFYING & ANALYZING	37

4. RESULTS	40
4.1 STUDY 1 – NO MANIPULATION	41
4.1.1 <i>Search Behavior</i>	41
4.1.2 <i>Decision & Change In Decision</i>	46
4.1.3 <i>Estimated Weighting of Information & Use of Time</i>	48
4.1.4 <i>Dominance structure in Study 1</i>	54
4.1.5 <i>Main Findings from Study 1</i>	59
4.2 STUDY 2 – MANIPULATION	60
4.2.1 <i>Search behavior</i>	60
4.2.2 <i>Decision & Change In Decision</i>	65
4.2.3 <i>Estimated Weighting of Information & Use of Time</i>	68
4.2.4 <i>Dominance Structure in Study 2</i>	73
4.2.5 <i>Main Findings from Study 2</i>	78
4.3 COMPARISON OF STUDY 1 & 2	79
4.4 SURVEY AFTER EXPERIMENT	81
5. DISCUSSION	83
5.1 HOW DO INDIVIDUALS MAKE DECISIONS WHEN BUYING A CONDOMINIUM?	83
5.2 DOES THE PRESENTATION FORMAT OF A CONDOMINIUM ASSOCIATION’S FINANCIAL SITUATION INFLUENCE BUYERS’ DECISION-MAKING PROCESSES?	85
5.3 IMPLICATIONS & DIRECTIONS FOR FUTURE RESEARCH	87
5.1.1 <i>Implications to the Area of Organizations & Expert Society</i>	87
5.1.2 <i>Implications to the Area of Decision-Making</i>	88
5.1.3 <i>Implications to the Area of Non-Experts</i>	88
5.1.4 <i>Implications to the Area of Presentation Format</i>	89
5.1.5 <i>Implications to the Area of Condominium Buying</i>	90
5.4 CRITIQUE OF THESIS	91
BIBLIOGRAPHY	92
LITERATURE.....	92
ELECTRONIC SOURCES	96
APPENDICES	97

1. Introduction

This thesis is introduced by providing the reader with background information about the research area followed by a more narrowed down discussion about the specific problem area. After that, the thesis' purpose and research question is presented. It then moves on to describe the knowledge contribution intended with this thesis as well as its delimitations. At last, an outline of the thesis is illustrated.

1.1 Background

In today's society, people put more and more faith to experts and there are increasing numbers of experts in different areas (Furusten & Werr, 2012). People go to the investor when looking to increase savings and visit the doctor when feeling ill. Thus, experts are the foundation for many important decisions. One of those decisions is which home we buy. For many people, buying a home is the biggest private investment in life and many choose to buy condominiums. For this reason, it is important that buyers make well-informed decisions regarding which condominium to buy and the information communicated from the realtor play a central role in this process.

Condominiums are a growing form of housing in Sweden. It is especially popular in urban areas because of the recognized benefits that come from being part of a community and the interest in living near cities. The high demand for condominiums in combination with a slowly growing supply has led to a substantial increase in

prices during the last few years¹. This had led to private individuals taking on more and more loans in order to finance their purchase. In fact, housing loans consists of over 80 % of the annual Swedes total household loans. Also, private individuals increase their housing loans with almost 6% annually.² Because private individuals are more vulnerable with high loans, it becomes even more important to assess what it actually means to purchase a condominium.

1.1.1 A Condominium - An Economic Entity

A condominium is defined as an unlimited usufruct to an apartment linked to membership in a condominium association (Melz & Victorin, 1996). In this way, condominiums differ from both tenancy and ownership. It is the condominium association, and not the buyer, that owns the condominium and the property of which it is located. The difference from tenancy is that the condominium's usufruct is unlimited and the condominium buyer has a stronger legal position than a tenant. Therefore, a condominium can be seen as a hybrid between tenancy and ownership.

The biggest difference in the forms of housing is that the condominium buyer becomes a shareholder and member in an association. This acquired share represents a value that can be sold or bought. Also, with the acquired membership come obligations such as joint responsibilities for the association's operations like the financial situation. Furthermore, the members have the possibility to influence decisions in the association during the annual general meeting by choosing the board

¹ Svensk Mäklarstatistik (2015-10-01)

² SCB 2015-09-30

of directors. The board of directors has the main responsibilities for managing the association and deciding what the members have to pay in monthly fee to cover the association's costs (Johnson & Lundström, 2004).

The condominium association is required to complete an annual report every year, which is a public document available to everyone (Lundén & Svensson, 2004). The purpose of financial accounting is to supply information about the company's economy to stakeholders (Smith, 2006, pp.17). In this case, it involves an association, but the mindset is the same. An important difference between a company and a condominium association is that the latter's purpose is to support the members' economic interests in their living situation (Lundén & Svensson, 2004). It can be argued that the condominium association should not make profits at all because that means that the members have paid a monthly fee that is too high. However, it is essential that the association goes at least break in the long run. If not, the association runs with the risk of bankruptcy or members having to pay extra (Lundén, 2006).

Finally, because the members have the responsibility for the financials of the association, the individuals are also responsible for the financial risks. An increase in costs means that the association could have to increase the monthly fee that each member pays, which impacts the buyers private financial situation negatively. Therefore, examining a condominium association's annual report is essential before deciding to buy and becoming a member or not (Lundén, 2006).

1.2 Problem Area

Even though it is significant for individuals to take the time to think through the decision of which condominium to buy, the hectic market makes buyers of today time-pressured. Condominiums are sold fast on the market today and some are even sold before the realtor gets a chance to show the object to potential clients. This pushes for fast and stressful decisions, which increases the risk for uninformed judgment in the sense that the final price might not fully mirror all available information. For example, customers might not consider that previous renovations can have an increasing affect on the monthly fee in the near future. Also, it is possible that potential irrational decisions are impacted by the fact that customers are generally speaking non-experts in the area of condominium evaluation and that the experts (the realtors in this case) are in the dilemma of balancing expertise and engaging in commercial activity.

Despite the importance of buyers analyzing the association's financial situation, studies have not been able to find support for that customers actually do value it (Johansson & Danielsson, 2010). Potential buyers seem to rely solely on the realtor's opinion and many feel uncertain about how annual reports are to be interpreted (Hammarström & Erlandsson, 2012). Researchers argue that the annual reports of condominium associations should be more easily understandable as everyone is not aware of economic terms or how to examine them (Backlund & Hallberg, 2008).

The fact that this problem is relevant today has recently led to the creation of new business start-ups. A few months ago, the founders of BoRank.se developed a service

where people get access analysis and rankings of condominium associations' financial situations. In an interview, one of the founders explained that the purpose of the business is to create a transparent market for condominiums and that many condominium buyers have too little knowledge about the association's financial situation when they decide to buy.³

This thesis has the purpose of examining how condominium buyers make decisions and if the way that the financial information is presented can impact the decision-making processes. Presenting the condominium associations' financial information in a more easily understandable format may influence buyers to make it a more important part in their processes of deciding whether to buy a condominium or not. Based on my review of previous studies, no such study has yet been conducted.

³ Di.se 2015-10-17

1.3 Purpose of Study & Research Question

The central purpose of this thesis is to contribute with insight about condominium buyers' decision-making process and whether the presentation format of the condominium associations' financial situation can impact this. This is examined by conducting two studies that comprise of condominium buyers' decisions to buy or not to buy a condominium given the information presented.

The following research questions attempts to be answered in order to fulfill this thesis' purpose.

1. *How do individuals make decisions when buying a condominium?*
2. *Does the presentation format of a condominium association's financial situation influence buyers' decision-making process?*

The first question attempts to contribute with an understanding about how individuals search and process information when making a decision to buy or not to buy a condominium. More specifically, in which order buyers search for information, if they have a certain strategy when they search for information and what type of information they search for. This is also called search behavior. Also, the first question attempts to capture how the decision evolves after reading different information and what importance each information has for the decision. Finally, it also intends to shed light into if condominium buyers follow a dominance structure in their decision making process. Learn more about dominance structure in section 2.2.1. The second research question attempts to answer how the factors captured in research question 1 are impacted by the presentation format of financial information.

1.4 Intended Knowledge Contribution

This thesis aims to contribute to the academic world by taking the research one step further. To the best of my knowledge, no previous studies have been done in the area of condominium buyers' decision-making processes and its impact through financial presentation format. Furthermore, this thesis intends to shed light on how non-experts make decisions when deciding to buy or not to buy a condominium as well as understanding if the theory of dominance structure can be applied to condominium buyers.

The meaning with this thesis is also that the results can enlighten stakeholders interested in knowing more about the decision-making process behind condominium buying. Apart from this, the intention is to contribute with managerial implications through the way organizations such as brokerage firms and condominium associations' present financial information. Presenting financial information in a certain way may help the buyers or the association members to make improved decisions, which in turn could benefit the organization. The importance of such a customer-oriented approach is supported by Drucker's (2006) belief that a company's primary responsibility is to serve its customers, as it is essential for a firm's survival.

1.5 Delimitations

Like all theses, this thesis consists of delimitations and one is that social contexts are disregarded. In this case, social contexts include the interaction with other non-experts such as friends and family, with real estate brokers, and with other parties likely to influence condominium buyers' decision-making processes. The reason for this choice of delimitation is that restrictions in time and resources limit the possibility to study such complicated situations. Instead, the choice of method captures the cognitive structure, as the outside world is part of the decision process.

Another delimitation of the study is that the participants do not get to see the condominium in real life before deciding to buy or not, which is often part of buyers' decision-making processes. Again, this is a restriction due to time and resources. Because of this, the choices of participants are familiar with the area where the condominium in this thesis is located. Also, the brokerage prospectus includes various clear pictures about the building and inside of the condominium in order to give the participants an accurate impression of the object.

Finally, the focus on this thesis is to examine condominium buyers that are non-experts. Experts in condominium buying exist as well; however, the majority of individuals buying condominiums are suggested to be non-experts. This is also the reason for the chosen delimitation.

1.6 Thesis Outline

Chapter one is an introductory discussion about the subject and the problem area. This is then narrowed down into the purpose of this thesis and the research questions that intends to be answered. **Chapter two** presents the relevant literature background and what can be predicted from previous studies. Thereafter follows **chapter three**, which includes a disclosure of the methodology used in this thesis. Then, **chapter four** goes through the results. As this thesis aims to answer two research questions, each question is answered in a separate study presented in chronological order. Finally, this thesis is concluded in **chapter five**. This dedicated to firstly answering the two research questions followed by a discussion on implications, directions for further research and critical discussion about the thesis.

2. Literature Background

In order to perform and analyze this thesis in the best possible way, certain academic literature has been reviewed. This chapter is introduced with a discussion on organization and today's expert society. After that, this section provides a discussion of theories and research within the area of individuals' decision-making and non-expert research. This is followed by a review of the literature within presentation format as it is one way of influencing decision-making. After this, there is a discussion on previous studies of condominium buyers' and what factors has proven to impact their decision-making.

2.1 Organization & the Expert Society

Today, people put more and more faith to experts and there have been an increasing numbers of experts in different areas that develop society further. Such experts could for example be in advisory, investments, education and brokerage⁴. People have gone to the investor when they have wanted to increase savings, visited the doctor when they have felt ill, and listened to the realtor when bought a home. In other words, experts have been the foundation for many important and decisive decisions. Thus, it has been seen as important to understand both the upsides and downsides of experts' essential role in society. The positive side of this has been that experts can facilitate individuals' and organizations' process to make well-founded decisions. Nevertheless, this has also created challenges for individuals, organization and the society, as it has gotten more and more problematic to get insight in and control over what the experts inform. In fact, there has been a risk that financial interests have

⁴ Some may argue that they are not experts, rather professionals (Furusten & Werr, 2012).

impacted what has been communicated. (Furusten & Werr, 2012).

In practice, experts, and the organizations that experts operate in, has faced the dilemma of balancing their expertise and engaging in commercial activities. Grey (1998) studied auditors that expressed how there was a difference between having professional knowledge in auditing and working as a professional auditor. Being a professional was more about creating trust with the purpose of selling services rather than only supplying customers with technical competence. Furthermore, Furusten & Werr (2012) discussed that organizations are built with the goal of financial profit and that efficient use of knowledge is an important part of achieving this goal. The focus on management, follow-up activities and control has created better opportunities for use of competence in expert-organizations. However, the risk that organizations move further and further away from the expert and more towards the financial return on investment was also identified in this discussion.

Moreover, the move towards an expert society has been driven by a normative development in society that people are supposed to make well-founded decisions (Furusten & Werr, 2012). Nonetheless, March (1994) stated that individuals' rationality in decision-making is limited. Decision-makers do not consider all consequences of their alternatives as they have focused on some and ignore others. Even though individuals' have tried to be rational, relevant information about consequences have often not been sought and available information has often not been used. Thus, individuals' and organizations' decision-making could both be clouded because of what experts communicate and irrationality.

In the market of condominiums, the realtor has the important role of being the expert that helps the buyer who is the non-expert. The buyer seeks advice from the realtor to be well-informed as he or she is trying to be rational in the decision of buying or not buying the condominium. How condominium buyers' make decisions can be more deeply understood by reviewing research within the area of individuals' processes in judgment and decision-making.

2.2 Theoretical Decision-Making Model

During the years, research has been conducted in order to try to understand how individuals think and make decisions. Judgment and decision-making (JDM) is argued to be fundamental for all investment related decisions (Andersson, 2001).

When doing research in the area of judgment decision-making, Russo & Shoemaker (1990) found it important to study the cognitive process of decision-making rather than just the decision in itself. The argument behind this was that an accurate decision process increases the likelihood that an individual makes a correct decision. Studies that merely focused on the decision outcome have been criticized to not provide a comprehensive view of how decisions were made. This was because those theories did not capture the individual's cognitive limitations, goals, values and task characteristics as the cognitive process theories did (Simon, 1986).

Montgomery's (1989) model search for dominance structure (SDS) were thought of as the most appropriate theory to consider in this thesis because it described the

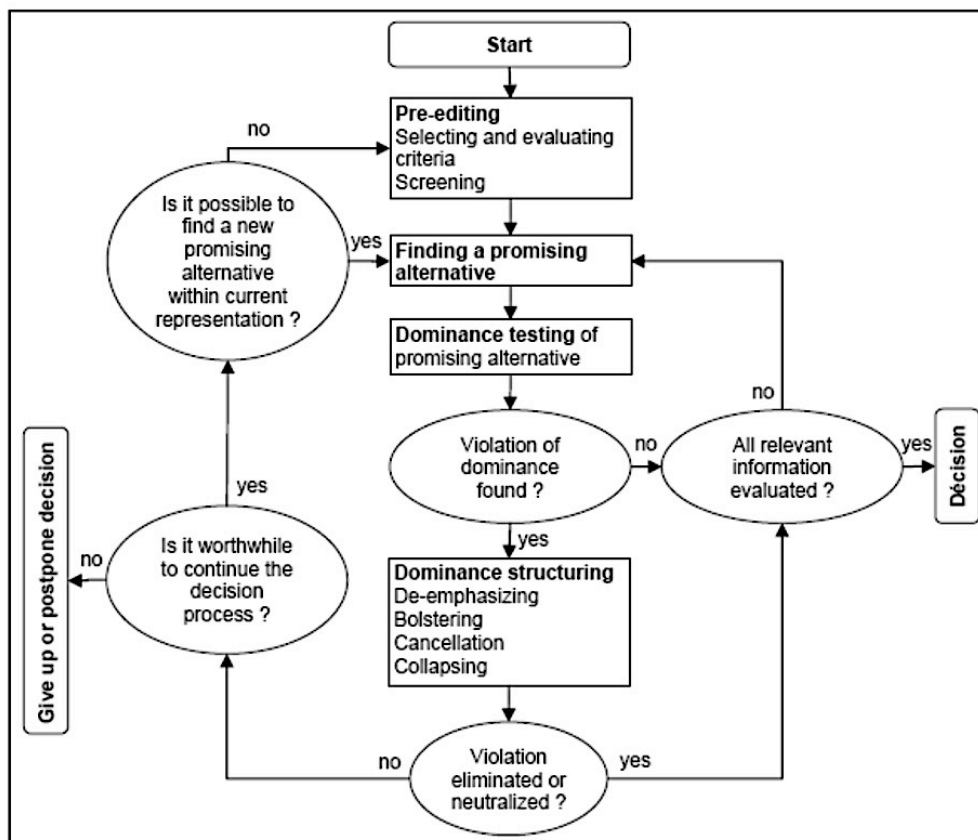
cognitive process that starts when the individual faces a decision and ends when a decision is made, see Figure 1. There have been critiques towards the SDS model as Svenson (1996) advocated a decision-making model that also captured the pre-decision stage of information gathering and the post-decision phase in order to get a full understanding of human decision-making. However, this thesis emphasis was specifically on what happens during the decision-making. Understanding what happens pre- and post the decision-making process is for future studies and therefore not of relevance for this thesis. Because of this, other decision-making theories like the Image theory (Beach & Mitchell, 1987) and the differentiation & consolidation theory (Svenson, 1992) were seen as less relevant and excluded from this thesis.

The SDS model is also relevant as it has been used to successfully understand the decision-making process of other studies in the 21 century that share similarities with this one. Nordemalm and Pütz (2004) were two students that investigated stock market analysts' decision to recommend to purchase or not to purchase a stock. Their thesis could be compared to this one where potential buyers' were to decide whether they should buy or not buy a condominium. Andersson (2004) also applied the SDS model when trying to understand lending decisions to small firms.

2.2.1 Montgomery's Search for Dominance Structure (SDS)

Montgomery developed the SDS theory in 1989. The key idea was that individuals tend to structure given information about an alternative's attributes in the way that one alternative becomes self-evident. In other words, individuals attempt to find a dominance structure, which is a cognitive structure where the chosen alternative dominates other alternatives on relevant attributes. The relevance and attractiveness of attributes are subjectively defined and are thus affected by the individual's experiences and knowledge from the outside world. In the SDS theory, the chosen alternative has at least one advantage over other alternatives. In the case of this thesis, an attractive attribute could for example be that the condominium has an attractive location.

Figure 1. Montgomery's (1989) Search for Dominance Structure (SDS) theory of decision-making



According to Montgomery, individuals' decision-making processes can be divided into four phases. The first one is the pre-editing phase. In this early stage, the individual tries to simplify the decision situation by selecting alternatives and relevant attributes. The second one is the finding-a-promising-alternative phase, which is when the individual discovers a candidate for the final choice. This is the alternative that has at least one important attribute that is better than other alternatives. It is now the individual's temporarily preferred alternative, but it is the following two phases that the individual decides if the alternative is actually going to be chosen or not. The third one is the dominance testing phase in which the individual tests if the candidate dominates over other alternatives. Individuals test the candidate using different decision-rules. One way is for the individual rank the attributes and chooses the candidate if it outperforms other alternatives on the most important attribute (compensatory decision-rule). Another way is for the individual to not rank the attributes and chooses the candidate if it outperforms the other alternatives on the majority of attributes (non-compensatory decision-rule). The candidate is chosen if it outperforms other alternatives, and the decision process ends. If not, the process continues into a fourth stage called the dominance-structuring phase. In this stage, the purpose for the individual is to try to achieve a dominance structure for the candidate by changing the structure. This can be done through de-emphasizing or emphasizing the candidate's attributes, collapsing two or more attributes into one comprehensive attribute as well as removing or adding attributes. If the individual fails to create a dominance structure for the candidate, he or she postpones the decision or goes back to previous stages and tries again.

Predications to this thesis: Condominium buyers were expected to follow a dominance structure in their decision-making. In this thesis, the first part of the process was done for the buyer as a condominium already has been selected as an alternative. Therefore, the focus here was on understanding how the individual made the decision after the stage of selecting optional alternatives and if dominance structuring occurred in favor of a certain decision. In this thesis, an essential aspect was also to identify what attributes and information the condominium buyer perceived as relevant in the decision-making process. More importantly, if the relevance of those attributes changed when certain information was presented differently.

The decision-making process can differ between individuals that are expert in an area and those that are non-experts. As the purpose of this thesis is to study the buyers' decision-making process, previous studies of non-experts are described in the following section.

2.3 Non-Expert Research

While non-experts and experts have been studied for over a century (Shanteau, 1999), it is not entirely clear what a non-expert is. Shanteau et al. (2000) reviewed previous studies and developed a combined index called CWS in order to help define non-experts and experts in a more accurate way. The CWS index comprised of

the ability to notice and act on subtle differences that normally were missed (discrimination) *and* the ability to repeat a decision in a similar situation (consistency). Based on this definition, a non-expert would have a low ability to discriminate and to be consistent. Another theory defined a non-expert as an individual with little knowledge in the field (Hoffman et al., 1995). Some argued that task specific knowledge was the key determinant of expertise (DeGroot, 1965; Chi et al., 1982; Hayes-Roth et al., 1983). Condominium buyers were perceived as non-experts mainly due to their often-limited knowledge in the area of real estate and/or condominiums and thus the likelihood that the average condominium buyer would lack the ability to get a high CWS score.

Previous studies of non-experts can be divided into two sub-areas: behavior and cognitive (Camerer & Johnson, 1991). Behavior studies' main focus has been on the output from a decision such as the accuracy of a judgment (Bolger & Wright, 1992; Shanteau, 1995). Despite the advantageous an expert has, they seem to predict badly because experts are often only slightly better at predictions than non-experts. The cognitive researchers, on the other hand, emphasize the significance of the process of decision-making and the knowledge-base underlying behavior of non-experts and experts. Previous studies in this area found that non-experts' cognitive abilities are less developed than experts. (Bédard, 1989).

Studies have also been performed in order to understand how non-experts acquire information, which has been another important part of the decision-making process. Information search behavior has derived from what information individuals have

looked for when making a decision. Studies have shown that non-experts were characterized as having a passive strategy in their search for information. A passive search strategy was defined as to take in information as it is presented. This differed from experts who had an active search strategy and therefore frequently followed up on specific information (Bouwman, 1984; Camerer & Johnson, 1991). A study that investigated the role of experience in lending showed that non-experts tended to acquire few cues of information before quickly leaning towards a decision (Andersson, 2004).

Predictions to this thesis: As this thesis' has focused on the process of decision-making, it was considered to be a cognitive study that attempted to understand non-experts better. Based on previous studies, condominium buyers were expected to behave as non-experts mainly due to their perceived limited knowledge in the area and thus the likelihood that the average condominium buyer would lack the ability to get a high CWS score. Also, previous studies indicated that a passive information and repetitive search strategy could be expected for condominium buyers. In turn, this implies that buyers' would benefit from reading financial information presented in a way in which they would perceive as easily understandable.

2.4 Presentation Format Research

Reviewing the literature suggested that features of presentation format⁵ have an important role in influencing individuals' decision-making (Ghani et al., 2009).

Presentation format have been used to facilitate individuals' ability to process information (Chervany & Dickson, 1974; DeSanctis & Jarvenpaa, 1989; Dull et al., 2003). The ability to process information has been referred to the amount of relevant information that an individual refer to before making a decision (Cloyd, 1995). Previous studies have shown that the presentation format can assist individuals' decision-making when processing a large quantity of data because it reduced cognitive effort (Brown & Eining, 1996; Rose, 2002). This is in line with Bertin's (1983) theory of presentation format that discussed forms of presentation formats. According to Bertin, the most suitable presentation format for information was the one that reduces cognitive effort. Furthermore, presenting information in a format that improve the individual's information processing could influence the accuracy of a decision. This was because a high degree of relevant information processed should have lead to higher decision accuracy (Beach & Mitchell, 1978; Payne, 1982). Decision accuracy refers to a decision's ability to generate a correct outcome (Ashton, 1991).

Influencing individuals through presentation format of financial information have been studied in several business related areas. Two of those areas were accounting and investment decisions (Mains & McDaniel, 2000; Ghani et al., 2009; Anderson & Mueller, 2005; Desanctis & Javenpaa, 1989). The most important conclusion from

⁵ Presentation format is defined as the way in which information is presented

those studies was that the financial statement has proven only to be useful for an investment decision if the individual has the ability to interpret it. However, little research has focused on the optimal presentation format for financial information (Desanctis & Javenpaa, 1989).

While numeric reports or tables were a traditional method used to present financial data for investment decisions (Leivian, 1980; Sias, 1970), little research has been devoted to understanding the most effecting format of financial data presentation. Wright's (1983,1988, 1989) studies showed graphs' potential influence on financial decisions. Wright compared the use of graphs with tables as a reporting method and found that graphs were more advantageous to use. Schulz and Booth (1995) challenged these results and no performance advantage using graphs was found. Andersson and Mueller (2005) believed that one important reason for the inconsistency in previous studies results was the lack of consistent use of methodology. One factor was the varied use of participants such as mixing non-experts (students) and experts (practitioners). Andersson and Mueller chose to study students and practitioners separately in their methodology. The results showed that while both groups made better forecasts and analysis when the financial information was presented in a graph, the students were helped more than practitioners are. Finally, a study of 160 participants found that information that was presented in colors with greater contrast generally lead to greater readability (Hall & Hanna, 2004).

To the best of my knowledge, one area that has not yet been studied is the presentation format's influence on condominium buyers' decisions. Previous studies that have been conducted in the area of condominium buying are discussed in the following section.

Predications to this thesis: Based on previous studies, it was expected that presentation format would facilitate buyers' ability to process the financial information, which should lead to improved decision-making. Also, it was expected that presenting the financial information in colorful graphs would be most advantageous, as it would decrease buyers' cognitive effort.

2.5 Overview of Previous Studies of Condominium Buyers' & The Associations Financial Situation

Previous studies have shown that there are several factors to consider when customers make the decision to buy or not to buy a condominium. Factors that have been proven to impact buyers' decision-making processes were the size in m², the geographical location, balcony, elevator and the year that the building was constructed (Aktulga & Aronsson, 2012; Roll, 2005; Lindblad, 2011). The financial situation of the condominium's association has been argued to be another factor for condominium buyers to consider (Lundén, 2006).

Previous theses have shown that both brokerage firms and customers are in agreement that the condominium association's financial situation is of high relevance when buying a condominium due to the fact that it impacts the buyer financially (Backlund & Hallberg, 2008; Hammarström & Erlandsson, 2012). Nevertheless, previous studies have not been able to find support for the associations' financial situation's impact on the final price on condominiums (Johansson & Danielsson, 2010). Moreover, previous theses have found that the monthly fee has negative correlation to the final price of condominiums and was thus a factor impacting buyers' decision-making processes (Aktulga & Aronsson, 2012; Johnson & Lundström, 2004). However, the monthly fee might not fully mirror the association's financial situation. Even if an association has a low monthly fee at the moment of purchasing the condominium, the association may have to increase the monthly fee in the near future. Future maintenance is one factor that can be brought up in the annual report, which can have an increasing effect on the monthly fee.

A thesis from the University of Gothenburg showed that potential buyers often relied solely on what the realtor said. Also, buyers showed uncertainty when too much financial data was presented. The same thesis also showed that members expressed a low interest towards the annual report during the Annual General Meetings. Furthermore, both the association's members and potential buyers felt great uncertainty about how annual reports were to be interpreted. The authors also requested a standardized manual for how associations should present their annual reports in order to help interest groups (Hammarström & Erlandsson, 2012). Student researchers argued that the annual reports of condominium associations should be

more easily understandable because everyone is not aware of economic terms or how to interpret them (Backlund & Hallberg, 2008).

Predictions to this thesis: It was expect that buyers value factors like size, location and other attributes in the decision-making process. Based of previous studies, it was expected that buyers would be of the opinion that it is important to consider the financial information of the condominium association, but that they had a difficulty in interpreting the information from the annual report. Based on this, there was the expectation that the financial information would be considered in the decision-making process if it were presented in a way buyers thought was easily understandable.

3. Methodology

This chapter provides a description and explanation of the research method used in this thesis. The chapter begins with the thought processes behind choosing verbal protocols as methodical approach. Verbal protocols are then presented further following a discussion of data quality. Then, the participants in this thesis are described. Also, this chapter goes systematically through the study material and provides an explanation of the experiment's procedure. The chapter ends with a description of how the verbal protocols were analyzed through coding.

3.1 Considerations of Alternative Methods

This thesis tried to understand individuals' decision-making processes when buying condominiums and if presenting financial information in an easily understandable way would influence this process. To choose the best methodical approach to examine this, considerations of methods were made.

The fact that individuals have a tendency to rationalize their thoughts and way of reasoning if data is collected after the decision leads to data with reliability limitations (Barlas, 2003). Andersson (2001) stated, "it is a fundamental principle for the process perspective that data is collected during the making of judgments and decisions". For this reason, the alternative of using a survey-based methodology in this thesis was disregarded.

Another methodical approach considered was in-depth interviews. However, the method of using in-depth interviews has shown to limit reliability and validity in the study of decision-making (Ericsson & Simon, 1993). Instead, the following three

techniques have mainly been used to explore cognitive processes: verbal protocols, eye tracking, and information display boards (Andersson, 2001). These three methods have different focuses. Therefore, not all of them were appropriate for this kind of cognitive process thesis. Eye tracking and information display boards were most advantageous to use if this thesis would have focused on only the acquisition of information. Verbal protocols, on the other hand, have given a better understanding of *how* information is acquired and used. Also, verbal protocols can both be used in explorative and hypothesis testing studies.

For these reasons, the method that was regarded as most appropriate to use in this thesis was verbal protocols. Also, a survey was used as a complement to verbal protocols, which the respondents get to fill in after the decision to buy. Some researchers have characterized verbal protocols as a quantitative method (Andersen, 1998). Others have viewed verbal protocols as a combination of qualitative and quantitative method⁶, which was also the approach I chose.

Also, this thesis conducted two multiple case studies as the participants performed the task independently of each other and every individual was treated as a separate case (Yin, 1994). Researchers agree that it is possible to generalize multiple case studies and that the results become more generalizable the more cases that are performed (Yin, 1994; Andersen 1998).

⁶ Patric Andersson, professor at Stockholm School of Economics and researcher within verbal protocols.

Finally, an experimental approach was chosen in order to fulfill the purpose of this thesis. The participants in this study were allocated into two groups that got different treatments. One of the groups was manipulated by one factor, which was the presentation format of the financial information. The reactions from the groups were thereafter compared to draw conclusions from the treatment (Söderlund, 2010).

3.2 Verbal Protocols

Verbal protocols mean that participants express their thoughts verbally when solving a certain task. Therefore, verbal protocols could be described as the study of verbalizations of decision-making behavior (Bouwman, 1984). It has also been called think-aloud protocols. Verbal protocols have for example been used in chess studies. Chess masters were asked to solve chess problems aloud to capture the players calculations, plans and other considerations leading up to a move decision (De Groot, 1965). Verbal protocols have also been used in management and organization studies (Sanchez-Manzanares, 2008; Gorman et al., 2005). Gorman et al. (2005) studied how firms were externally financed and Sanchez-Manzanares et al. (2008) studied how novices and experts designed organizations.

The main idea with this method is that participants express their thoughts and that the thoughts are a reflection of their cognitive processes (Anderson, 2001). There are two types of verbal protocols: concurrent and retrospective. In concurrent verbal protocols, the participants are asked to think aloud while performing a task and in retrospective verbal protocols are the participants asked to explain what they were doing after completing a task (Ericsson & Simon, 1993). This thesis was performed

using concurrent verbal protocols. This was because concurrent verbal protocols have been argued to be best suited when participants solve complicated problems, like economic analysis or medical diagnoses, or when the task is expected to take more than 10 seconds to complete (Ericsson & Simon, 1993). To illustrate, it may be difficult to think aloud when doing rope skipping.

Like all methods, verbal protocols have been criticized. One critique towards verbal protocols has been that some cognitive thoughts may fail to be reported (Russo et al., 1989). Perhaps the main shortcoming with verbal protocols is argued to be the time consuming process to analyze data, which restricts the number of participants (Andersson, 2001).

3.3 Data Quality

It is critical to have appropriate data quality when conducting studies (Bryman & Bell, 2011). Thus, reliability and validity were factors considered in this thesis.

3.3.1 Reliability

Reliability expresses a study's accuracy and credibility (Jacobsen, 2002). Thus, it is about whether consistent results would be attained if the study were conducted repeated times (Bryman & Bell, 2011). All things considered, reliability should be satisfactory in this thesis given the actions taken to ensure quality.

In order to achieve as high reliability as possible, the experiment has been conducted the same way for all participants. Also, all answers were recorded to be able to go back and listen to it again in order to avoid misunderstandings about facts, attitudes

or behavior. I also tried to behave as neutral as possible with all participants. For example, I simply asked the participants to “please, think aloud” and not provide the participant with too many explanations as it can affect the on-going cognitive process (Ericsson & Simon, 1993). A final aspect to note in the discussion of reliability is that the method in this thesis has almost been identically performed as previously successfully performed studies (Nordemalm & Pütz, 2011; Bouwman et al., 1987). This was done in order to ensure data quality.

3.3.2 Internal & External Validity

Validity can be divided into internal and external validity (Jacobsen, 2002). Internal validity is about if what is measured corresponds to what is intended to be studied. External validity, on the other hand, is about whether the results correspond with the investigated population. All in all, validity should be satisfactory, as several measures have been taken to ensure validity.

First of all, the use of verbal protocols was chosen as method to not limit the internal validity. Also, as the results from the protocols pointed in the same direction as the survey, it is unlikely that the validity deteriorated due to the post-experiment survey. Otherwise, this could have been the case as individuals have a restricted ability to be self-aware. Also, subjective interpretation could have occurred and limited the internal validity if the protocols were not codified using clear rules or if the encoders make the assumption that the participant thought the same as themselves (Ericsson & Simon, 1993). I have made my best efforts to minimize subjective interpretations by developing clear rules for codifying before meeting with the participants, also

called priori methods. Also, I performed the codifying of the answers with the help of another student. We codified the results independently and there was very seldom a situation in which we were in disagreement about which codes to use. This implies little subjective interpretation. Finally, the internal validity was strengthened by the fact the results could be triangulated as data was analyzed in different ways. For example, the content in the verbal protocols were complemented by the question asked, the use of time and the search order.

Furthermore, important factors to consider that could have confined the external validity in this thesis are the limited number of participants and the fact that the participants were in an experimental-like situation. The number of participants is restricted to 28 (14 in each study), which can be considered to be a small group. However, previous studies using verbal protocols tend to have below 12 participants in each study due to the time consuming work that comes with analyzing data (Payne, 1976; Bouwman et al., 1987; Sanchez-Manzanares, 2008; Nordemalm & Pütz, 2011; Coram et al., 2011). Moreover, the fact the empirical sample was collected in an experiment-like situation might have limited how realistic the studies' were. This could be an important factor because the situation meant that the participants could not interact with the realtor, see the condominium in real life or ask friends and family for advice in the decision-making process. Despite this, all participants stated that the case was very realistic and very few were of the opinion that additional information was needed.

3.4 Participants

The sample consists of 28 participants, which means that 14 people participated in each study. Each of the participants either lives in a condominium in Stockholm or is looking to buy one and most of the individuals were acquaintances of mine or friends of mine's acquaintances. Among the 28 participants are 13 men and 16 women. All are between the ages of 24 and 44. Participants 1-14 took part in study 1 and 15-28 in study 2. For more information about the participants, see Appendix.

3.5 Study Material

The object selected was a two-room condominium located in central Stockholm. It was important to choose an apartment with a central location to increase the chances that participants were familiar with the area to make the experiment more realistic.

The study material comprise of the four parts⁷. Participants in both studies received the first three part of study material, while only the participants in study 2 received all four parts. The parts of study material used in this thesis are:

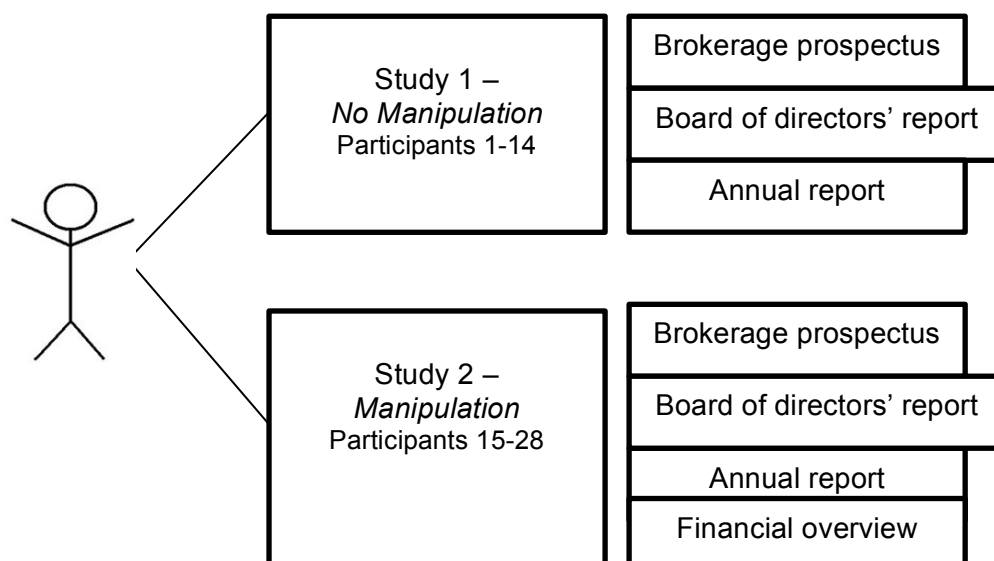
1. *Brokerage prospectus (5 pages)*. The prospectus contain (a) mostly professional *photographs* of the apartment, (b) an overall *layout* of the condominium, (c) the *realtors' description* of the condominium and (d) a *fact box* with information about price, address, monthly fee, Internet/TV channels, approximation of electricity and insurance costs, number of rooms, size in m², if there is an elevator in the building or not, the name of the association and on which floor

⁷ The financial overview can be seen in Appendix. The rest of the material can be recieved from the author in Swedish via e-mail.

the apartment is on. The brokerage prospectus was provided by the real estate agency “Vision” in Stockholm.

2. *Annual report (5 pages)*. A numerical report of the previous year’s income statement and balance sheet provided by the condominium association.
3. *Board of directors’ report (1 page)*. A discussion about who is on the board of directors and what has happened during the previous year as well as information about plans for the near future. The condominium association provided this report.
4. *Financial overview (1 page)*. A sheet of graphs presenting key financial information. All information is received from the association’s annual reports.

The material was chosen after a discussion with one professional realtor in Stockholm, one chairman of a condominium association, two experienced condominium buyers and one condominium developer in order to make sure that the participants were provided with the information that buyers take into account to make a decision in reality. All information was presented in Swedish in order to avoid language barriers.



3.6 Procedure

Each participant was met with individually during October and November 2015. Before the actual assignment was handed out, the participants were asked to do a pre-exercise to practice "thinking aloud" as recommended by Ericson & Simon (1993). Please see Appendix for details on the pre-exercise.

After the participants were finished with the pre-exercise, the participants were ready for the experiment. Firstly, they were promised anonymity to feel more secure in speaking their opinion. Then, the case was introduced and the participants received the information from the study material and a description of the assignment, which was a role-play scenario meaning that the participants were asked to imagine that they were in a certain situation. See Appendix for details about their assignment. The participants were not instructed to have to use a certain amount of information to make the decision and time constraints were not made. This is in line with what Payne (1976) suggested in his study. Each session took between 8 and 22 minutes. All verbal expressions were recorded and timed using a recorder app on the phone and the data was then transcribed.

The participants got to examine one part of the study material at a time, but they were allowed to go back and forth between the study materials as they wished. They got to choose for themselves which of the three (four) parts of the study material to examine. After they reviewed of each part of the study material, the individuals were asked to answer the following question: "After reading this information, in which

direction does your decision point to?”. The question was on a scale from 0 to 6, 0 being “I definitely not want to buy” and 6 being “I absolutely want to buy”. A scale on 0 to 6 has previously been used in studies of verbal protocols (Andersson, 2004). The question was mainly used to measure how the decision developed. After the participants had examined all study material of interest, a final decision to buy or not to buy was made.

As a completion of the study, the participants were asked answer a short survey with the purpose of finding out if any information was missing and to state what information was most useful when arriving at the final decision, see Appendix. This survey also included a manipulation check with the purpose of securing that the participants noticed the manipulating factor as recommended by Söderlund (2010).

My role during the experiment was to be passive and not disrupt the cognitive process. I only presented the instructions and made the comment “please think aloud” during the experiment if it was needed. Also, I was ready to answer potential questions about the assignment. However, very few participants asked questions.

To ensure data quality, this procedure was in many ways a replicate of previous studies with similar research methods (Nordemalm & Pütz, 2004; Bouwman, 1987). The difference was that this thesis focused on one object rather than presenting several alternatives to the decision maker. Also, other study materials were used, and Bouwman (1987) used a larger quantity of information in his research design.

3.7 Codifying & Analyzing

The verbal protocols were only of use if they could be understood. A way of analyzing the data in a systematic way was through the use of codes. I performed the codifying together with another student and used clear rules in order to avoid subjective interpretations.

A total of 26 codes were used to allow for a comprehensive analysis, see an overview of the codes in Table 1. The codes were replicated from previous studies of Nordemalm & Pütz, 2004, Svenson (1989) and Bouwman et al., 1987. The codes were divided into six categories: read and examination codes, reasoning codes, goal codes, memory access codes, comment codes and other.

Table 1. An overview of the 26 codes used to structure and analyze the data in this thesis. The codes were previously used by Nordemalm & Pütz (2004), Bouwman et al., (1987) and Svenson (1989).

Read and examination ID – identify information item R – Read/examining the information PAR – Paraphrase TREND – Identify trends COMP – Calculating C – Compare two items CI – Comparing with internal norm CA – Compare with industry average	Reason SUM – Summarize evaluations I – Infer EXPL – Explain AS – Make assumption Q – Formulate a question
Goal setting SG – State goal FG – State potential future goal GR – Select specific information GI – Select a certain information item	Memory Codes SF – Stress a specific observation RET – Retrieve information from memory
Comment COM – Comment task content MC – Comment problem solving process	Other D – Deciding NO – Note on paper KM – comment decision A+ – Positive statement about the alternative A- – Negative statement about the alternative

Bouwman et al. (1987) developed the majority of the codes used in this thesis. They argued that the main objective when developing codes was that all codes together should capture an as accurate picture of the decision making process as possible. Although most thoughts from the participants were captured, not all of the participants' expressed thoughts could be codified. There are some comments that were difficult to interpret because they were unclear. That type of information is not included in the report because it was perceived as irrelevant. Table 2 shows an example of how the recorded information was categorized into codes consistent with Newell & Simon (1972) procedure of using short phrases.

Table 2. Extract from P4's protocol using the codes developed by Svenson (1989), Bouwman et al. (1987) and Nordemalm & Pütz (2004).

Row	P2's statement	Code
1	I would first like to take a look at the brokerage prospectus	GI
2	I am looking at the pictures first	R
3	I am doing that to see where the condominium is located in the building and if the condo attracts me overall	EXPL
4	Hm...	
5	I see that it is located quite high up	CI
6	That's good	COM
9	Hmm.. I like this apartment	COM A+
10	Looking at the price...	R
11	*Calculating*	COMP
12	Ehmm.. so that's almost 90 000 kr/m ²	NO
13	I guess that's to expect in this area in Stockholm and in this market today	CA TREND

The codes A+ and A- were added from Svenson (1989) in order to look into if dominance structure could be found in the decision-making process according to Montgomery's theory discussed in the literature chapter. Montgomery and Svenson (1989) used the A+ and A- codes to determine dominance structure among different

alternatives. Furthermore, they used a division of the protocols in order to determine how the participants selected the promising alternative. The protocols were divided into part 1 and 2. Part 1 included the positive and negative statements in the first half of the protocols and part 2 included the statements from the other half. If there is a dominance structure, the valued statements in the second part of the protocols are presumed to be in favor of the selected promising alternative.

This was a clear and rather rough method of examining dominance structure in decision-making and it has also been successfully used by Nordemalm & Pütz (2004). Thus, it was decided to be an appropriate method in this thesis as well. In this thesis, only one alternative was presented and it was expected that positive statements indicated an interest to buy and negative statements indicated a disinterest to buy.

4. Results

This thesis aimed to answer the questions: (1) “How do individuals make decisions when buying a condominium?” and (2) “Does the presentation format of a condominium association’s financial situation influence buyers’ decision-making process?”. In order to do so, two studies was performed. Study 1 consisted of participants that were not exposed to manipulation with the purpose of understanding condominium buyers’ decision-making process as it is today. Study 2 consisted of participants exposed to manipulation, which was the financial overview. By comparing the studies, an understanding of the presentation format’s impact on the decision-making process could be obtained. Statistical analysis was performed using non-parametric analysis (Newbold, 1995) in SPSS Statistics 23.0.

Chapter four goes through the results from the studies. **Firstly**, the search behavior is presented which is of relevance because it tells us *what* the decision-maker is doing. **Secondly**, the chapter outlines the condominium buyers’ decision to buy the condominium and how that decision changes after having read different types of information. **Thirdly**, the estimated weighting of information and use of time is presented in order to learn about the impact that certain information has on the decision-making process. **Fourthly**, it is determined whether a dominance structure takes part in the decision-making process or not. **Finally**, the results from the studies are compared and the post-experiment survey is complied.

4.1 Study 1 – No Manipulation

4.1.1 Search Behavior

A first step in understanding the decision-making process for condominium buyers was to understand how information is searched for. One way to investigate search behavior was to understand in which order individuals searched for information. This is demonstrated in table 3.

Table 3. The order in which the participants searched for information material. The table shows that all participants started with the brokerage prospectus and then moved on to either annual report or the board of directors' report. However, 5 out of 14 participants chose not to examine the annual report at all. Each individual participant is named "P number", e.g. P1.

Participant	Search Order		
	1	2	3
P1	Brokerage Prospectus	-	-
P2	Brokerage Prospectus	Board of Directors' Report	Annual Report
P3	Brokerage Prospectus	Annual Report	Board of Directors' Report
P4	Brokerage Prospectus	Board of Directors' Report	Annual Report
P5	Brokerage Prospectus	-	-
P6	Brokerage Prospectus	-	-
P7	Brokerage Prospectus	Board of Directors' Report	Annual Report
P8	Brokerage Prospectus	Board of Directors' Report	-
P9	Brokerage Prospectus	Board of Directors' Report	Annual Report
P10	Brokerage Prospectus	Annual Report	Board of Directors' Report
P11	Brokerage Prospectus	Board of Directors' Report	Annual Report
P12	Brokerage Prospectus	-	-
P13	Brokerage Prospectus	Annual Report	Board of Directors' Report
P14	Brokerage Prospectus	Board of Directors' Report	Annual Report

The results from this study showed that none of the information was examined twice. Thus, the participants did not go back and forth between information material during the analysis. Also, participants had a certain order in which the information was preferably assessed. The brokerage prospectus tended to always be examined before the annual report or the board of directors' report. Several of the participants provided explanations for this similar to the statement below.

“When I look for condominiums, I always begin by looking at the brokerage prospectus because the value lies in if I think I am going to feel at home in the condominium. I can see that through pictures and descriptions.” – Participant P5⁸

After the brokerage prospectus, there was no statistically significant evidence showing that individuals tended to examine the annual report before the board of directors report or the other way around. However, more people tended to prefer to read the board of directors’ report before the annual report. Also, participants tended to avoid the annual report because they thought of it as extensive, complicated and difficult to comprehend.

Moreover, the search orders seem to be influenced by what individuals have examined before. A Spearman correlation analysis showed a negative correlation ($r = 0,7$, $p < 0,01$) between the participants’ standpoint after reading the brokerage prospectus and the number of people that chose to examine the annual report. The less interested the participants were in the condominium after reading the brokerage prospectus, the less likely they were to also examine the annual report. The reasoning behind this is explained in the quote below.

“There is no point in searching for information about the financial situation if I am are not at least a little bit interested in the condominium based on the information from the brokerage prospectus.” – Participant P6

⁸ All statements are translated from Swedish.

Another way to understand the search behavior was to understand what attributes the participants searched for within each group of information material. When participants examined the brokerage prospectus, people started looking at the address to recognize the area of location. The participants then moved on to looking at the pictures. The pictures were an important part of the decision-making process as expressed by participant P2.

“The picture are important and something I want to look at early. I want to look at the pictures in order to get a sense of where the condominium is located in the building and if it has some features that I like such as a balcony or a tiled stove. And of course, I want to get a sense of if I think I can feel at home here.” – Participant P2.

A priority was also to see the overall layout of the condominium as well as identifying and forming an opinion about the price. This was followed by learning about the monthly fee, what’s included in the fee and also checking on which floor the condominium was on and if there was an elevator in the building or not. Some of the participants moved on to read about the broker’s description of the condominium, while others found it to be “unnecessary sales-talk”.

When they looked at the board of directors’ report, the main goal seemed to be to find out about the age of the building and previous and future renovations or maintenance. This was done to get an understanding of the condition of the property and the likelihood that the monthly fee would rise due to increasing future costs.

“I read that renovations have been done for the windows and that a new broadband has been installed... hmm... It’s good that those renovations already have been done. Then I read that

the board is going to increase the monthly fee... Hmm. I don't like that, but it is only by 10%... And if I would really like the condominium, I might buy it anyways". - Participant P4

When it came to the annual report, participants tried to interpret a few key factors in the profit and loss statement and the balance sheet. In the profit and loss statement, the priority was to understand the income streams, if the association was making a profit or loss and how the results have been over the past few years. In the balance sheet, most participants looked at the amount of debt that the association had. Even though most participants tried to understand these factors, only a few people managed to comprehend the information in such a way that they formed their own conclusions and opinions about it. Some participants started reading the report, but then stopped and said that they did not know how to interpret the information correctly or they did not have a reference point for what was considered "normal" or "good". Also, a few participants expressed the need to ask someone knowledgeable in the field that they could trust such as a friend or a colleague. Participant P3 said:

"I look for large expenses and how income is generated in the profit and loss statement. I can see here that some income is from other than the member's fee, but I don't know what that can be. Perhaps they are renting out space for storage.... Except for this, I don't really know what I should be looking at and I don't really know if it is common that associations make losses or not or how much losses one should accept." - Participant P3

Finally, condominium buyers can be characterized as having a combination of active and passive search behavior. On one hand, it was active in the sense that the participants were not provided with the information in a certain order. It all lay in front of them on a table and they got to actively choose which information to

examine. Also, sometimes participants seemed to actively look for certain information such as certain renovations in the board of directors' report. On the other hand, the participants never went back and forth between the information material to look for or double check certain attributes or information. Also, once the participants started examining a piece of information, most of it was examined passively by reading from the beginning to the end and in that order.

Conclusion about search behavior: Condominium buyers searched for information in a certain order, which was influenced by what they had examined before. They started with the brokerage prospectus for the address, pictures, the overall layout and some facts like price, monthly fee and what is included, if there is a balcony, which floor the apartment was on and if there was an elevator in the building. About half of the buyers read the realtor's description. If the buyers found the brokerage prospectus appealing, they moved on to the board of directors' report or the annual report. At this point, buyers' priority was to learn about renovations and maintenance and to get an understanding of the financial situation. Most individuals seemed to have a difficulty in interpreting the financial information in the annual report because of limited knowledge. If there was no interest in the condominium after reading the brokerage prospectus, there was a tendency to disregard the financials from the process. Also, condominium buyers were characterized as having a combination of active and passive search behavior.

4.1.2 Decision & Change In Decision

The second step in understanding the decision-making process was the actual decision to buy or not to buy the condominium. In this study, all participants chose to make a final decision. The results show that people had different opinions about the condominium. Half of the participants stated that they were very likely or likely to buy the condominium, four were uncertain and three were not interested in buying the apartment. This is illustrated in table 4.

Table 4. The participants' final decision to buy or not to buy the condominium. Half of the participants were positive (likely/very likely) to buy the condominium, four were neutral (unsure) and 3 were negative (not interested/probably not interested).

Decision Direction	Final Decision
Likely of very likely to buy	7
Uncertain	4
Not interested or probably not interested	3
Number of participants	14

After the participants examined each information material, they were asked to answer (on a scale from 0 to 6) if they wanted to buy the condominium based on the information examined. In this way, one could follow the decision-making process and see how the decision to buy or not to buy the condominium changed after having read different information. The results are presented in Table 5.

Table 5. The table shows how ten of the participants' decision to buy or not to buy the condominium did not change after having examined the brokerage prospectus. These participants are marked with*. The participants that answered a three or below on the "decision to buy"-scale chose not to examine the annual report.

Participant	Final decision	Brokerage Prospectus	Board of directors' report	Annual report
*P1	3	3	3	
*P2	5	5	5	5
P3	5	4	4	5
P4	4	3	3	4
*P5	1	1		
*P6	0	0		
*P7	4	4	4	4
P8	3	4	3	
*P9	6	6	6	6
P10	3	2	3	3
P11	5	4	4	5
*P12	0	0		
*P13	5	5	5	5
*P14	3	3	3	3

The decision to buy is on a scale from 0 to 6 with 0 being "absolutely not willing to buy the condominium and 6 is "absolutely willing to buy the condominium".

An interesting finding was that as many as ten people did not change their mind after having read the brokerage prospectus and that half of those individuals chose not to examine the annual report. It is worth noticing that those that chose not to examine the annual report answered a three or below on the "decision-to-buy"-scale. Only four participants changed their opinions after having read the brokerage prospectus and examined the other information. None of those changed their minds in a more negative direction. Also, three of the participants changed their minds in the positive direction after they read the annual report. Participant P10 even changed two steps in the positive direction

Conclusion about the decision: The participants had different opinions about the condominium. The most interesting finding was that most condominium buyers tended not to change their minds after having read the brokerage prospectus. Those that change their minds do so based on new or clarifying facts found in the board of directors' report or in the annual report. To the best of my knowledge, there are no specific background differences among the participants that changed their opinion and those that did not.

4.1.3 Estimated Weighting of Information & Use of Time

A third step in understanding condominium buyers' decision-making process was to discover the importance that each type of information had for the final decision to buy or not to buy the condominium. This was assessed using triangulation based on (1) the participants' own estimated weighing of information, (2) how the participants' used their time and (3) the number of participants examining each type of information material. By comparing these results, a good comprehension of each information material's importance was attained.

Each participant was asked to estimate how important each information material was in the decision-making process using a weighting system. Adding up to 100 %, the participants had the task of weighting (in %) how important each information material was for their decision. Table 6 illustrates the results. The median was calculated in order to facilitate for the readers.

Table 6. The participants' self-estimated weighting of information. All numbers are in % and each individual participant is named "P number", e.g. P1.

Participant	Type of Information Material		
	Brokerage Prospectus	Board of Directors' Report	Annual Report
P1	100	0	0
P2	50	30	20
P3	10	30	60
P4	20	30	50
P5	100	0	0
P6	100	0	0
P7	60	30	10
P8	90	10	0
P9	40	30	30
P10	40	20	40
P11	65	20	15
P12	100	0	0
P13	40	20	40
P14	75	25	0
Median	63	20	13

If one takes a close look at the data presented in the table above, it could be seen that 12 out of 14 participants' estimated the brokerages prospectus to have had a 40 % or higher impact on their decision-making. Thus, an indication could be seen that the majority of participant's found the brokerage prospectus to be an essential part of their decision-making process. In fact, the participants P1, P5, P6 and P12 estimated that they only based their decisions on the brokerage prospectus. Moreover, the weighting of the annual report varied more dramatically than the weighting of the board of directors' report. While the participants estimated an importance of the annual report to be between 0 and 60 %, the importance of the board of directors' report only varies between 0 and 30 %. Also, it is worth noticing that only 6 out of 14 participants estimated a weighting of the annual report to be above 20 % and that as many as 9 out of 14 participants weighted the board of directors' report to 20 % or above. From this, one can conclude that participants were in more agreement about how important the board of directors' report was for the decision than the

importance that the annual report had. Furthermore, a larger number of participants seem to find the board of directors' report more important than the annual report.

Also, the participants were timed while performing the task in order to understand how the participants allocated their time to each type of information material. This is illustrated in Table 7 both in minutes and in percentage in order to get a more comprehensive overview of the allocation of time. In total, the participants' decision-making process took between 8 and 20 minutes.

Table 7. The participants' use of time. The numbers are in minutes and the numbers within the parenthesis are in percentage. Each individual participant is named "P number", e.g. P1.

Time per Information Material

<i>Participant</i>	<i>Total</i>	<i>Brokerage Prospectus</i>	<i>Board of Directors' Report</i>	<i>Annual Report</i>
P1	20,36	20,36 (100%)	0,00	0,00
P2	10,40	5,40 (52%)	3,12 (30%)	1,86 (18%)
P3	18,46	6,18 (33%)	4,27 (23%)	7,99 (43%)
P4	16,37	5,52 (34%)	5,86 (36%)	4,97 (30%)
P5	15,44	15,44 (100%)	0,00	0,00
P6	8,20	8,20 (100%)	0,00	0,00
P7	8,30	4,2 (51%)	2,80 (34%)	1,30 (16%)
P8	12,34	10,00 (81%)	2,34 (19%)	0,00
P9	9,20	5,26 (57%)	2,12 (23%)	1,80 (20%)
P10	17,40	6,50 (37%)	4,07 (27%)	5,41 (31%)
P11	16,37	5,52 (34%)	5,86 (36%)	4,97 (30%)
P12	13,23	13,23 (100%)	0,00	0,00
P13	11,30	5,20 (46%)	2,50 (22%)	2,30 (20%)
P14	12,80	6,20 (48%)	4,80 (38%)	1,80 (24%)
Median	13,02	6,19 (52%)	2,65 (23%)	1,80 (19%)

At least 4,2 minutes of the time was allocated to the brokerage prospectus, which was also where almost all of the participants spent the majority of their time. Interesting findings were that 11 out of 14 participants spent 40% or more of their time on the brokerage prospectus. This was in line with the results from the self-estimated weighting of information where 12 of the participants considered the brokerage prospectus to be 40% or more of importance in their decision-making. Another

finding that spoke for the high importance of the brokerage prospectus was that four of the participants (P1, P5, P6 and P12) allocated their whole time to the brokerage prospectus. Another discovery similar to the results from the self-estimated weighting is the time spent on the two reports. Participants spent almost as much time on the annual report as they do on the board of directors' report; however, more participants tended to spend slightly more time on the board of directors' report. 9 participants spent 20 % or more of their time on the board of directors' report and 7 participants spend 20 % or more of their time on the board of directors' report. This small difference may be seen as a small indication that the board of directors' report might have been slightly more important than the annual report if one also takes into account that a few more participants estimated that the board of directors' report was of higher importance than the annual report. Note that the annual report contains more information and more pages compared to the board of directors' report that consists of only one page of information.

A correlation test was performed to deepen the understanding about the relationship between time allocation and the self-estimated weighting of information, see table 8. As viewed in the table below, there was a strong positive correlation between the factors. Strongest is the relationship between brokerage prospectus, then the annual report and then the board of directors' report. This suggested that the variables moved in the same direction, meaning that a longer time spent on the brokerage prospectus resulted in a higher estimated weighting of that information.

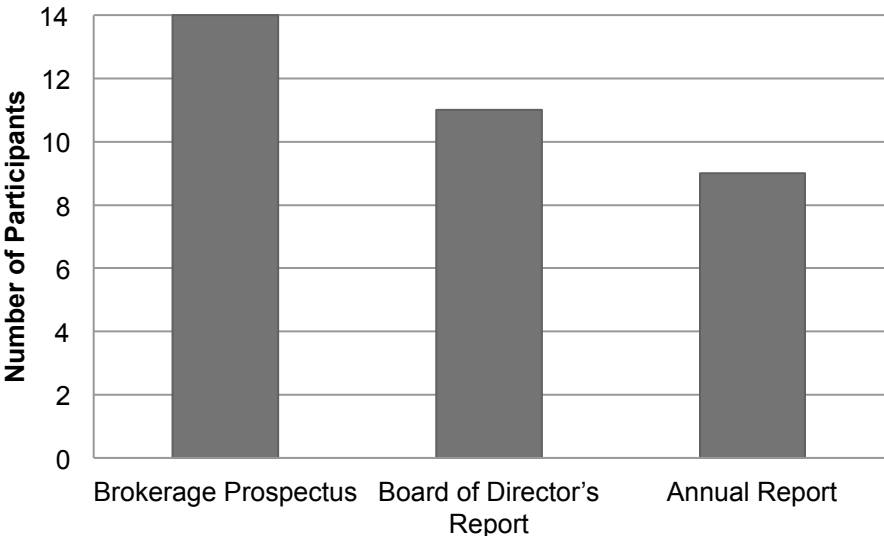
Table 8. Nonparametric correlation (Spearman test) of the participants' self-estimated weighting of information and the participants' use of time.

		Self-estimated weighting of information		
Use of time		Brokerage prospectus	Board of Directors' Report	Annual Report
Brokerage Prospectus		0,85		
Board of Directors' Report			0,74	
Annual Report				0,82

* Correlations are significant at the 0,01 level (2-tailed)

Finally, the number of participants that examined each type of information material is presented in Figure 2. All 14 participants examined the brokerage prospectus, which supports previous indications that the brokerage prospectus was the most important piece of information when deciding the buy a condominium. 11 out of 14 participants examined the board of directors' report and 9 out of 14 looked at the annual report. This also provides weigh to the smaller indications that the board of directors' report may have been slightly more important in the decision-making process than the annual report.

Figure 2. Number of participants examining each information material.



Conclusion about the importance of each information material: The brokerage prospectus seemed to distinctively have been the most important information that was considered in the decision process. After that, there seem to be a slight indication that the board of directors' report was a more important part of the decision-making process than the annual report. This was because more people choose to examine it and the people that read it tended to allocate a little bit more time too it than they did to the annual report. Also, a few more participants estimated that the board of directors' report was the second most important information for their decision-making process. Because of this, there is a suggested indication that the importance of the types of information among condominium buyers are ranked in the following order: (1) Brokerage prospectus, (2) Board of directors' report, and (3) Annual report.

4.1.4 Dominance structure in Study 1

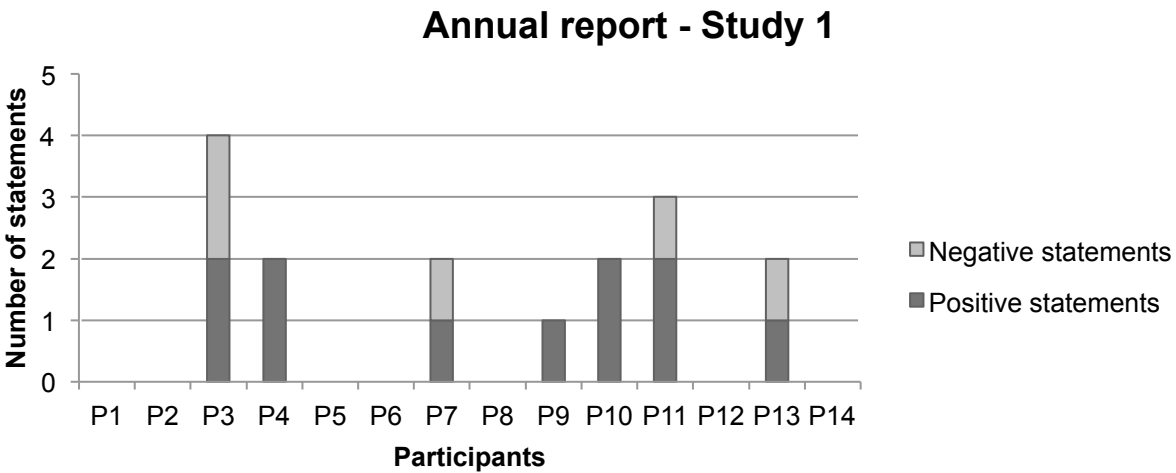
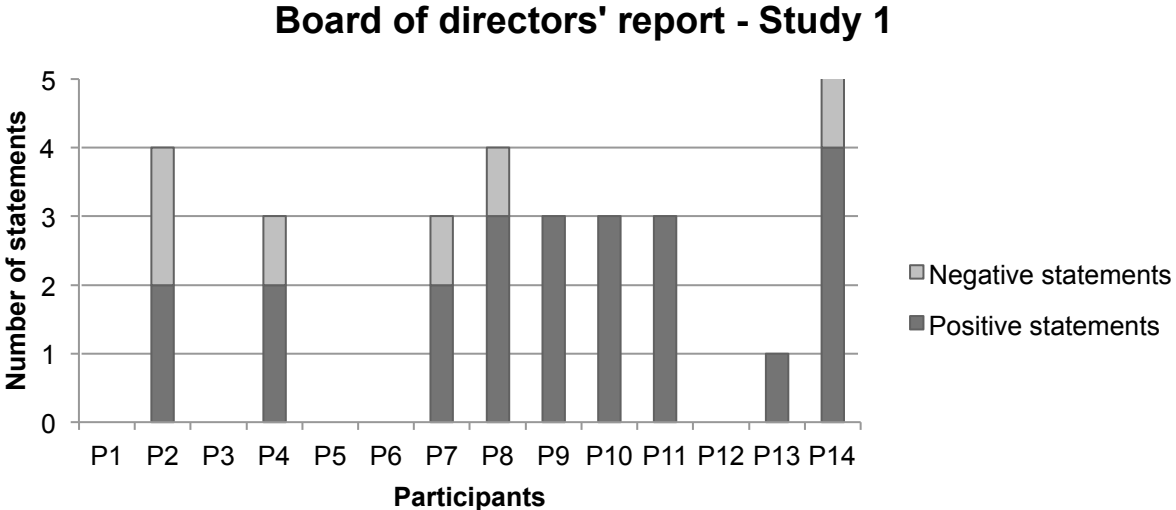
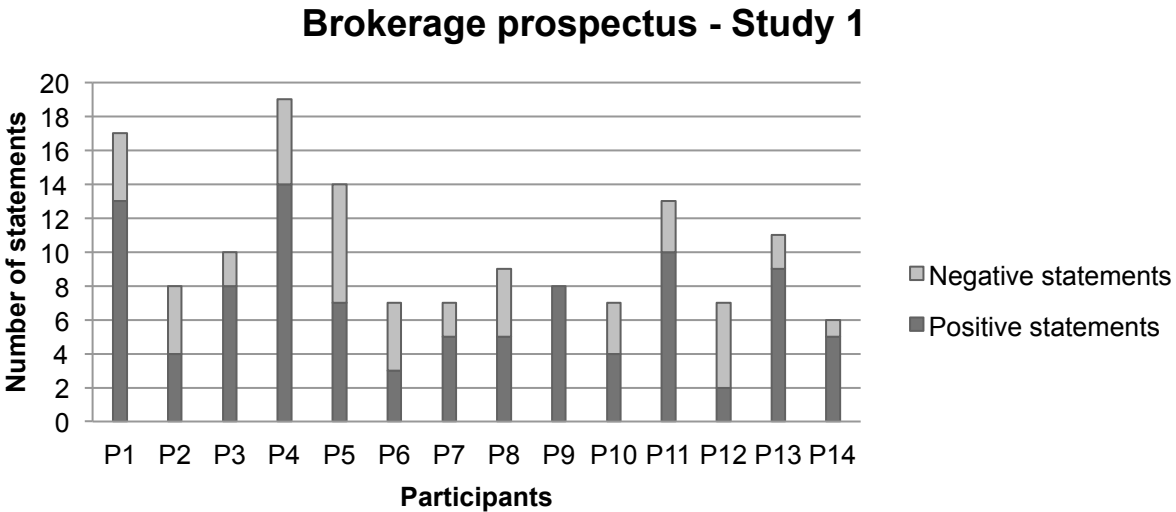
Based on Montgomery and Svenson's (1989) approach to testing dominance structure, the results from this study also demonstrated that a dominance structure occurred in the decision-making for most condominium buyers. This could be found by applying the coding system on the verbal protocols, which consisted on a total of 600 statements in study 1. As seen in Table 9, the brokerage prospectus gave rise to almost 4 times as many statements as the rest of the material followed by the board of directors' report and at last the annual report.

Table 9. Number of statements for each information material in study 1.

Participant	Brokerage Prospectus	Board of Directors' Report	Annual Report
P1	39	0	0
P2	23	11	11
P3	29	7	23
P4	33	23	13
P5	57	0	0
P6	36	0	0
P7	16	13	7
P8	25	6	0
P9	19	7	5
P10	19	12	15
P11	24	8	7
P12	27	0	0
P13	26	9	7
P14	20	17	6
Total	393	113	94

In order to understand if there was a dominance structure going on, it was of interest to determine how many of the statements above were positive about the condominium and how many were negative for each information material. This is illustrated in Figures 3-5.

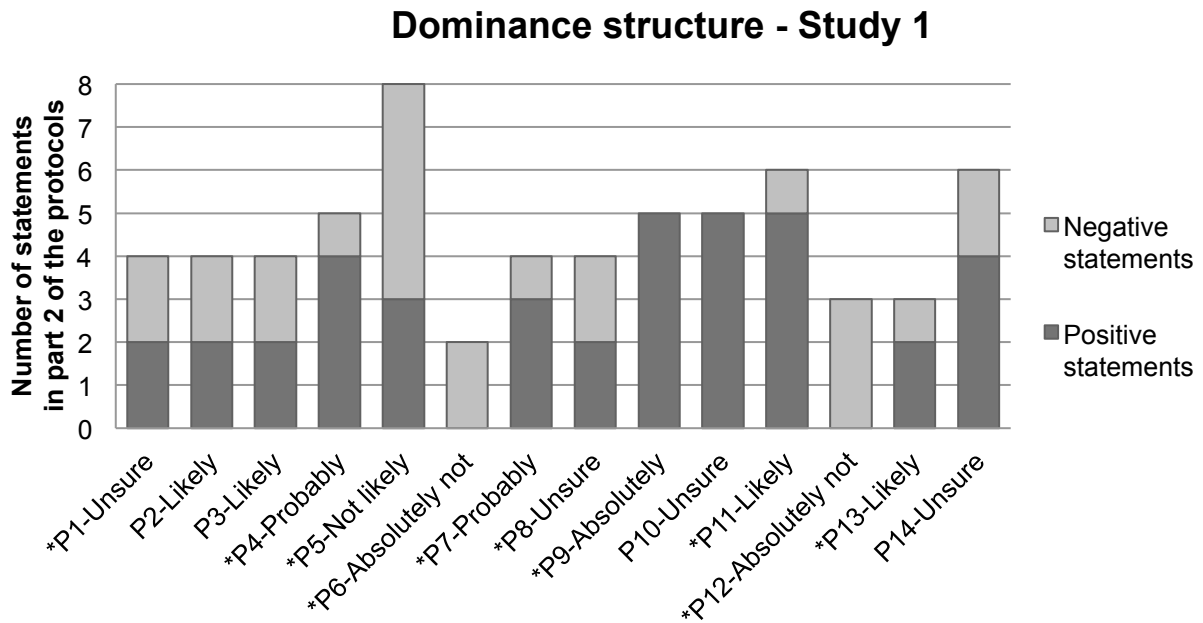
Figures 3-5. Number of positive and negative statements for each information material.



As seen above, the brokerage prospectus gave rise to most negative and positive statements, which indicated that it was the information material that participants had the strongest opinions about. The participants said at least two positive statements about the brokerage prospectus and P4 said as many as 14. It was interesting to notice that P9 only had positive things to say about the condominium. On the other hand, the board of directors' report and the annual report gave rise to few opinions. The complete lack of valued statements in both of the reports from participants P1, P5, P6, and P12 can be explained as they chose not to examine those reports at all. Also, the participants P2, P8, P14 stood out by only stating positive and negative aspects about the condominium in the board of directors' report, but not in the annual report. This can be explained as P8 did not examine the annual report at all and that P2 and P14 had a hard time understanding the annual report and were unable to fully comprehend what the numbers meant. In general, the fact that most participants had a hard time knowing how to comprehend the annual report could be an explanation why so few valued statements were said about it.

The next step in determining if there was a dominance structure going on or not was to split the protocols in two parts and see how many positive and negative statements were said for each half. According to Montgomery and Svenson (1989) we would expect to find more valued statements in line with the final decision that was chosen in the other half of the protocols. For example, if the final decision was to absolutely buy the condominium, there was an expectation that more positive than negative statements about the condominium is found in the latter half. As seen in Figure 6, this behavior could be found for 10 out of 14 participants.

Figure 6. An illustration of the number of positive and negative statements in the second part of the protocols and the participants' final decisions. * is marked in front of those participants where dominance structure could be found.



An interesting finding was that negative opinions appears to weigh more heavily than the positive ones in the process of condominium buying for some of the participants. The reason for this could be that it was a big investment and it makes individuals more careful. For example, it was it only participant P9 that absolutely wanted to buy the condominium and P9 was the only participant that did not state any negative opinions about the condominium in either part halves of the protocols. Also, only two negative compared to four positive statements about the condominium made P14 unsure about buying. This could be the reason why no dominance structure was found for P14. Participants P2 and P10 were seen as outliers in this study.

The reason why a dominance structure could not be found for P3 could be that the dominance structure simply started earlier in the process. This was supported by the

results illustrated in Table 10 as more positive and negative statements were found in the first half of the protocols. More positive and negative statements about the condominium in the first half of the protocols could also be explained by the fact that the first half for all participants consisted only of parts of the brokerage prospectus, which was also the information material that generated most opinions.

*Table 10. Number of positive and negative statements for each half of the protocols. Those situations where dominance structure could be found are marked with *.*

Participant	Part 1	Part 2	Total
*P1	11:2	2:2	13:4
P2	4:4	2:2	6:6
P3	8:2	2:2	10:4
*P4	14:5	4:1	18:6
*P5	4:2	3:5	7:7
*P6	3:2	0:2	3:4
*P7	5:3	3:1	8:4
*P8	4:3	2:2	6:5
*P9	7:0	5:0	12:0
P10	4:3	5:0	9:3
*P11	10:3	5:1	15:4
*P12	2:2	0:3	2:5
*P13	9:2	2:1	11:3
P14	5:1	4:2	9:3

Conclusion about dominance structure in Study 2: An indication about dominance structuring could be identified for most participants and it seem to have started earlier than in the second half of the protocols for at least some. Also, negative opinions about the condominium seem to have a big impact on buyers' final decisions, which could be explained by the fact that buying a condominium is a big private investments and that could have made individuals more cautious.

4.1.5 Main Findings from Study 1

- Condominium buyers had combination of active and passive search strategy. Also, they preferred to examine information in the following order: (1) brokerage prospectus, (2) board of directors' report, (3) annual report. The reports were only examined if the brokerage prospectus was appealing. The importance of each information material was in the same ranked order.

- Attributes that most buyers looked for in the:
 - Brokerage prospectus: address, pictures, layout and the facts: price, m², monthly fee and what is included, balcony, the apartments floor number and elevator. The realtor's description was examined in about half the cases.
 - Board of directors' report: age of building, future and previous renovations and maintenance.
 - Annual report: profit and loss statement (revenue streams, main costs, final result) and balance sheet (loans). However, most individuals had a difficulty in fully comprehending the annual report.

- Condominium buyers tended not to change their minds after having read other information than the brokerage prospectus.

- There was an indication of dominance structuring in the decision process.

4.2 Study 2 – Manipulation

As study 1 shows, many buyers had a difficulty in interpreting annual reports when making the decision to buy a condominium or not. Study 2 attempts to contribute to an understanding about if buyers could be helped in their decision process by presenting the financial information in a more easily understandable way through a financial overview.

4.2.1 Search behavior

To get an understanding of the search behavior, the searched order was also analyzed for the participants exposed to manipulation. See results in Table 11.

Table 11. The order in which the participants searched for information.

Participant	Search Order			
	1	2	3	4
P15	Brokerage Prospectus	Board of Directors' Report	Financial Overview	Annual Report
P16	Brokerage Prospectus	Board of Directors' Report	Financial Overview	-
P17	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P18	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P19	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P20	Brokerage Prospectus	Financial Overview	Annual Report	Board of Directors' Report
P21	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P22	Brokerage Prospectus	Financial Overview	Board of Directors' Report	-
P23	Brokerage Prospectus	Financial Overview	Annual Report	Board of Directors' Report
P24	Brokerage Prospectus	Board of Directors' Report	Financial Overview	Annual Report
P25	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P26	Brokerage Prospectus	Financial Overview	Board of Directors' Report	-
P27	Brokerage Prospectus	Board of Directors' Report	Financial Overview	Annual Report
P28	Brokerage Prospectus	Financial Overview	-	-

Just like in section 4.1.1, the brokerage prospectus was examined first in all cases. Another interesting observation from this study was that the financial overview (the manipulating factor) was viewed second in 10 out of 14 times. In total, all participants reviewed the financial overview at some point. Also, non-parametric descriptive statistics analysis shows that the financial overview was preferably examined before the board of directors' report and annual report (statistical significance of 10%). Even though people had different opinions of the association's financial situations based on the financial overview, the fact sheet in itself got only positive response. One example of a participants expressed opinion was:

"I think the financial overview is very helpful, especially with the explanations that shortly describes what each economic term means. It is easier than opening the annual report and seeing a bunch of numbers." – Participant P17

The most negative expression regarding the financial overview was that participant P18 expressed the need for a reference point (such as a comparison to industry standard) in order to help determine if the association's financial situation deviates from the normal standard. The same participant also expressed the following.

"While the financial overview would have been even more helpful if it would have included some sort of reference point, I would still like to ask someone knowledgeable for advice before I bought the condominium" – Participant P18

Furthermore, seven participants chose to examine the board of directors' report after the financial over view and before the annual report. The rest chose to either not

examine the board of directors' report at all, to examine the annual report before or to look at the financial overview.

Moreover, the annual report was examined at last, which was statistically significant ($p < 0,05$). In addition, an interesting finding was that four participants chose not to examine the annual report after they read the financial overview. However, there was no indication that condominium buyers' search order was affected by opinions created from previously examined material. This relationship was found in study 1 in which the annual report tended to be excluded if participants were uninterested in the condominium after reading the brokerage prospectus. In this study, neither the opinions from the brokerage prospectus or the financial overview influenced the participants decision regarding if they should view the annual report or not. It merely seemed as some participants found the annual report to be unnecessary to read after having looked at the financial overview.

For each type of information material, the participants searched for different attributes. In the brokerage prospectus, the participants started with identifying the address of the condominium in order to learn about its location and state their opinions about that location. Not only their opinions about their preferences of the area, but it was also used as a benchmark for their opinions of what the price should be for the condominium. Then, all participants moved on to look at the pictures in order to get a sense of its size and proportions, its standard, features like balcony and the general feeling. Then, a priority was to look at the layout. Participant P22 said the following statement below.

“By looking at pictures of the kitchen and the bathroom, I get a sense of the standard. I don’t want to move in and then have to renovate directly. Also, I think the overall layout of the condominium is important because it shows how it is structured.” - Participant P22.

After the participants finished up looking at the pictures and the layout, they moved on to look at the fact box, which shows price (which some people then chose to use to calculate price/m²), the monthly fee and what is included in it as well as on which floor the condominium is on and if there is an elevator or not. After that, some participants chose to read carefully the broker’s description, some skimmed through it and some skipped it.

When it came to the board of directors’ report, some participants read it through carefully and some only skimmed it through. Either way, a strong majority of the participants had in common that it was the board’s discussion about future renovations that was most important as well if the board discussed to increase the monthly fee. Also, the age of the building was important for some participants.

In the financial overview, no one seemed to look for any particular information. Rather, participants had a strong tendency to read it as it was presented – from the top to the bottom of the page. Also, a majority of the participants chose to read everything in the financial overview, including the short explanatory text about economic terms.

With regards to the annual report, three out of those participants that chose to examine it did so only in order to double check that the numbers in the financial overview were correct. The rest did it in order to look deeper into some parts of the

annual report such as the association's income stream(s) or what costs exists. Just as in section 4.1.1, many participants in this study were insecure about the annual report due to limited knowledge as expressed below.

"I do not really know what to look at here... I guess it is some sort of reassurance that the financial overview is correct." – Participant P19

Finally, condominium buyers in this study had a passive search behavior with traits of active search behavior. It was passive in the sense once the participants chose a piece of information material; they read it in the order it was presented. Also, no participants went back to look more closely at any information in the process. On the other hand, it was active in the sense that the participants actively chose which information material to view and they occasionally looked for particular attributes.

Conclusion about search behavior: The participants from study 2 also seemed to have a certain order in which they choose to examine information. All started by examining the brokerage prospectus and a strong majority moved then on to view the financial overview. Then, people had a tendency to look at the board of directors' report and the annual report at last. Four participants chose to exclude the annual report from the decision process after having read the financial overview. To finalize, a mixture of passive and active search behavior also characterized participants in this study.

4.2.2 Decision & Change In Decision

The actual decision to buy or not to buy the condominium as well as how this decision evolves after taking part of certain information was important to understand in order to answer the second research question. Alike study 1, all participants chose to make a final decision in this study. Unlike study 1, a majority of the participants seem to be inclined towards buying the condominium in this study. The results show that as many as 9 out of 14 of the participants stated that they were very likely or likely to buy the condominium, two were uncertain and three were not interested. See table 12 below.

Table 12. The participants' final decision to buy or not to buy the condominium. 9 out of 14 participants were positive (likely/ very likely) to buying the condominium, two were neutral (unsure) and 3 were negative (not interested/ probably not interested).

Decision Direction	Final Decision
Likely or very likely to buy	9
Uncertain	2
Not interested or probably not interested	3
Number of participants	14

To get a clear overview of how the decision to buy the condominium evolves after reading different information, each participant was asked to answer on a scale from 0 to 6) if they wanted to buy the condominium based on the information examined. This question was asked after each information material that the participants reviewed. In this way, an understanding can be attained about what type of information that affects the condominium buyers in study 2 in a positive, neutral or negative direction. The results are illustrated in Table 13.

Table 13. The table below illustrates how half of the participants' decision to buy or not to buy the condominium did not change after having examined the brokerage prospectus.

Participant	Final decision	Brokerage Prospectus	Financial overview	Board of directors' report	Annual Report
P15	0	1	0	1	0
P16	3	3	3	3	
P17	5	5	5	5	5
P18	5	4	5	5	5
P19	5	4	6	6	4
P20	4	4	4	4	4
P21	5	4	5	5	5
P22	1	2	1	1	
P23	3	3	3	3	3
P24	4	3	4	3	4
P25	5	4	5	5	5
P26	5	5	5	5	
P27	4	4	4	4	4
P28	2	2			

* The decision to buy is on a scale from 0 to 6 with 0 being "absolutely not willing to buy the condominium and 6 is "absolutely willing to buy the condominium".

Seven participants (P5, P18, P19, P21, P22, P24, P25) changed their minds after they read other information than the brokerage prospectus and seven participants (P16, P17, P20, P23, P26, P27, P28) did not. This is an interesting finding because it shows that more participants are prone to changing their decisions after reading other information than the brokerage prospectus in study 2 than the participants in study 1 were. Thus, conclusions can be made that study 2 was the more successful in affecting condominium buyers' final decisions with other information than the brokerage prospectus.

If a close look is taken at the results, all participants that changed their minds during the process did change it after reading the financial overview. Five participants (P18, P19, P21, P24 and P25) changed their minds in the positive direction while two participants (P15 and P22) changed their mind in the negative direction dependent

on preferences. Moreover, four participants (P18, P21, P22 and P25) had the same opinion after reading the board of directors' report and the annual report as they had when they read the financial overview. All of them also reviewed the financial overview before the board of directors' report and the annual report. The other 3 participants (P15, P19 and P24) also changed their minds after reviewing the annual report and/or the board of directors' report. Participant P19 even changed his/her decision in two steps (from a four to a six) after reading the financial overview.

Conclusion about the decision: The participants in study 2 had mostly positive opinions about the condominium. The most interesting finding was that condominium buyers in study 2 were more inclined to changing their decisions after reading other information than the brokerage prospectus than in study 1. Also, all participants that did change their minds did so after reading the financial overview. Also, to the best of my knowledge, there are no certain background characteristics that could explain why some participants changed their minds and some did not.

4.2.3 Estimated Weighting of Information & Use of Time

The importance that each type of information had for the condominium buyers in study 2 has been done in the same way as in study 1. It was assessed using triangulation based on (1) the participants' own estimated weighing of information, (2) how the participants' used their time and (3) the number of participants examining each type of information material. A comparison of these results gave a good understanding of each information material's significance.

Each participant was asked to estimate how important each information material was for the final decision using a weighting system that added up to 100 %. See Table 14.

Table 14. The participants' self-estimated weighting of information. All numbers are in % and each individual participant is named "P number", e.g. P1.

Participant	Information Material			
	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P15	50	13	25	13
P16	80	10	10	0
P17	15	30	25	30
P18	80	10	5	5
R19	60	20	17	3
P20	80	5	5	10
P21	60	20	15	5
P22	53	25	22	0
P23	80	10	5	5
P24	35	30	25	10
P25	70	20	10	0
P26	70	18	12	0
P27	90	5	4	1
P28	90	10	0	0
Median	70	15	11	4

The self-estimated importance of the brokerage prospectus varied between participants, but the variation was slightly lower than in study 1. In this study, it varied between 15 % and 90 % while it varied between 10 % and 100 % in study 1. However, just as in study 1, conclusions can be made that the participants estimated

that the brokerage prospectus was by far the most important part of their decision-making process. This was with the exception from P17 who seem to have a stronger preference for financial information overall. Additionally, the financial overview was self-estimated to be the second most important information material in the decision-making process for all participants in this study except for participant P10 who valued the annual report more. For the financial overview, the weighting varied between 5 % and 30 %. Moreover, the board of directors' report was self-estimated to be the third most important factor in the decision-making process among 11 out of 14 participants. This estimation varied between 0 % and 25 %. Furthermore, the annual report was self-estimated to be the least important information by 12 out of 14 participants.

Each participant was timed while they performed the task, see Table 15. To facilitate the table for the readers, the use of time is presented in both minutes and % and the median has been calculated.

Table 15. The participants' use of time. The numbers are in minutes and the numbers within the parenthesis are in percentage. Each individual participant is named "P number", e.g. P1.

Time per Information Material

<i>Participant</i>	<i>Total</i>	<i>Brokerage Prospectus</i>	<i>Financial Overview</i>	<i>Board of Directors' Report</i>	<i>Annual Report</i>
P15	21,80	8,30 (38%)	5,89 (27%)	3,80 (17%)	3,60 (17%)
P16	8,15	5,14 (63%)	1,68 (21%)	1,31 (16%)	0,00
P17	20,37	4,20 (21%)	4,79 (24%)	6,49 (32%)	4,86 (24%)
P18	11,43	5,00 (44%)	1,11 (10%)	2,33 (20%)	2,96 (26%)
R19	8,10	4,28 (53%)	1,29 (16%)	1,81 (22%)	0,81(10%)
P20	8,25	3,23 (39%)	1,16 (14%)	1,66 (20%)	2,20 (27%)
P21	9,0	3,20 (36%)	2,30 (26%)	1,50 (17%)	2,00 (22%)
P22	18,20	8,30 (46%)	4,89 (27%)	4,80 (26%)	0,00
P23	7,15	3,14 (44%)	1,61 (23%)	1,24 (17%)	1,00 (14%)
P24	18,17	4,60 (25%)	4,7 (26%)	5,43 (30%)	3,86 (21%)
P25	11,66	5,20 (45%)	2,41 (21%)	2,33 (20%)	1,96 (17%)
P26	17,40	6,50 (38%)	3,10 (18%)	4,07 (24%)	0,00
P27	8,95	3,23 (36%)	1,90 (21%)	1,66 (19%)	2,16 (24%)
P28	10,31	8,35 (81%)	1,96 (19%)	0,00	0,00
Median	10,87	4,80 (42%)	2,13 (21%)	2,07 (20%)	1,98 (17%)

As seen above, it took each participant between 8 and 22 minutes to perform the experiment. Several participants tended to allocate these minutes similarly. All participants allocated between 21 % and 63 % of their time to the brokerage prospectus and 12 out of 14 participants spend most of their to on the brokerage prospectus. Thus, this supports that the brokerage prospectus is the most important information material in the decision-making process for study 2 as well. Moreover, the participants spent between 10 % and 27 % of their time on the financial overview. Thus, 7 out of 14 participants spend the second most time on the financial overview. This is only slightly higher than for the board of directors' report because six people allocated second most time to that report. In fact, participants spent between 0 % and 30 % of their time on the board of directors' report, which is a higher variance than that of the financial overview. Thus, based on time allocation, it hard to distinguish which one of the financial overview and the board of directors' report that was most important. It seems as only one more person allocated more time to the financial overview. With regards to the annual report, it seemed as most participants (9 out of 14) allocated least time to it. In fact, four participants chose not to allocate any time to the annual report. Participant P17, P18 and P27 deviate from the participants because they allocated second most time to the annual report. Note that the annual report contains more information and more pages compared to both the financial overview and the board of directors' report that consists of only one page of information.

Just like in study 1, there seem to be a link between the self-estimated weighting of information and the use of time. A correlation analysis showed a positive link between the use of time and the self-estimated weighting of information. The more important the participants estimated that certain information was, the more time

they spent on it. This relationship was strongest for the annual report followed by the board of directors' report and the financial overview. As expected, the correlation coefficients were slightly lower in study 2 than in study 1 as one more factor was taken into consideration here.

Table 16. Nonparametric correlation (Spearman test) of the participants' self-estimated weighting of information and the participants' use of time.

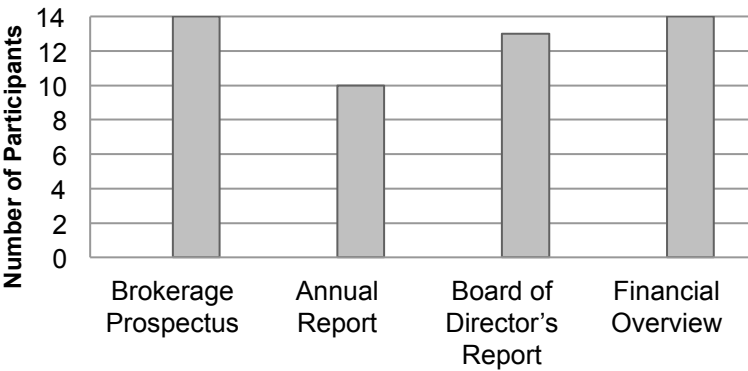
Self-estimated weighting of information

Use of time	Brokerage prospectus	Financial Overview	Board of Directors' Report	Annual Report
Brokerage Prospectus	0,48 (0,08)			
Financial Overview		0,51 (0,06)		
Board of Directors' Report			0,52 (0,06)	
Annual Report				0,59 (0,03)

- The number in the parentheses shows the significance level (2-tailed)

To finalize, Figure 7 illustrates the number of participants that examined each information material. The results show that all 14 participants examined the brokerage prospectus and the financial report, 13 participants read the board of directors' report and 10 examined the annual report. This gave an indication that the brokerage prospectus was the most important information followed by the financial overview, the board of directors' report and finally the annual report.

Figure 7. Number of participants examining each information material.



Conclusion about importance of each information material: Most participants' self-estimated that the brokerage prospectus was the most important information, and almost all participants allocated most time to it. With regards to the financial overview, a large majority self-estimated it to have been second most important, only one person chose not to review this information and most people allocated second most time to it. Closely after was the board of directors' report, as it seemed to be the thirdly most important information material. Least people chose to review the annual report, a large majority of participants allocated least time to it and almost all participants self-estimated it to have been least important. Because of this, there was a suggested indication that the importance of the types of information among condominium buyers were ranked in the following order: (1) Brokerage prospectus, (2) Financial Overview, (3) Board of directors' report, and (4) Annual report.

4.2.4 Dominance Structure in Study 2

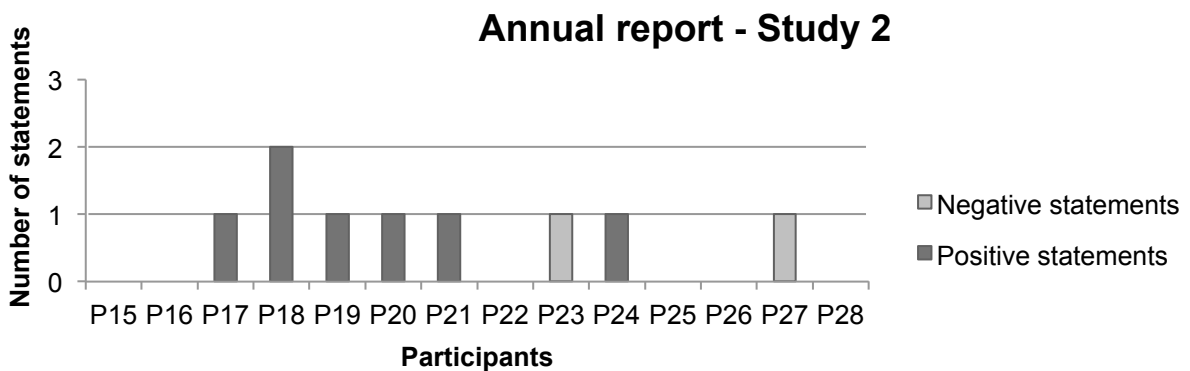
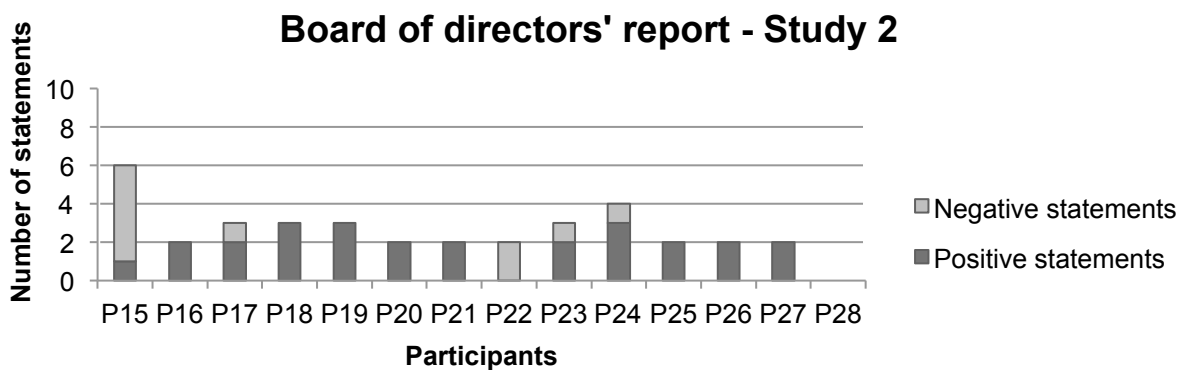
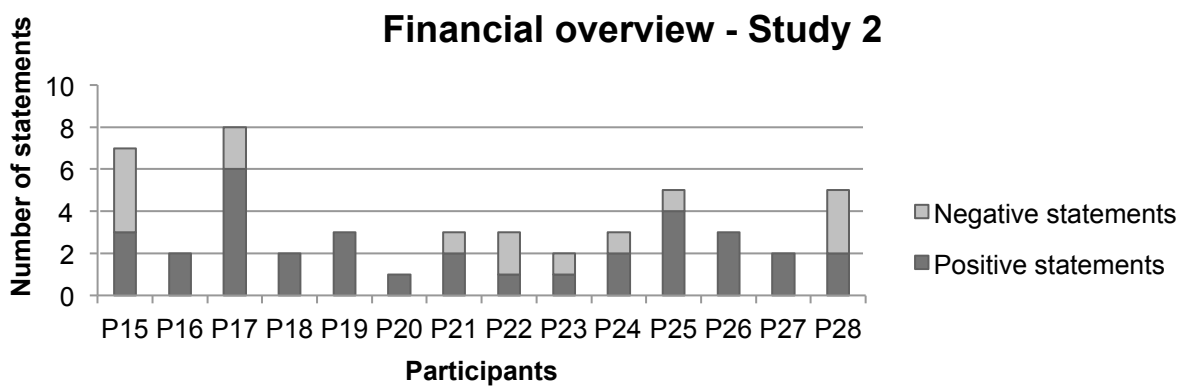
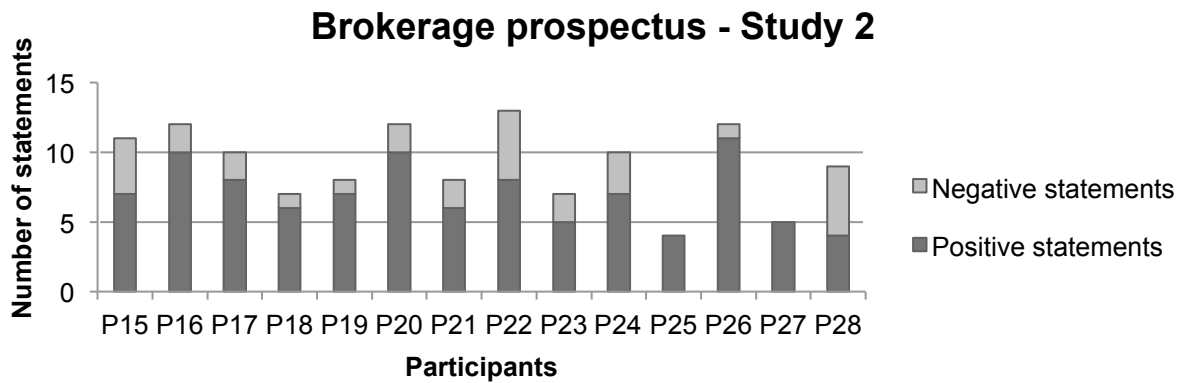
The results indicate that condominium buyers in study 2 also used a dominance structure in their decision-making process. The protocols in study 2 consisted of a total of 687 statements, see Table 17. Almost half of those statements arose in the brokerage prospectus. After that, the board of directors' report gave rise to most statements followed by the financial overview and then the annual report.

Table 17. Number of statements

Participant	Brokerage Prospectus	Financial Overview	Board of Directors' Report	Annual Report
P15	25	11	18	11
P16	28	7	6	0
P17	15	17	19	22
P18	24	6	17	12
P19	18	10	10	4
P20	33	9	9	7
P21	16	8	5	7
P22	31	12	14	0
P23	14	5	6	3
P24	18	14	16	11
P25	19	7	10	6
P26	26	11	16	0
P27	14	7	5	7
P28	29	12	0	0
Total	310	136	151	90

The next step in the process of examining dominance structure was to determine how many of the statements were positive about the condominium and how many were negative for each information material. This is illustrated in Figures 7-11.

Figures 7-11. Number of positive and negative statements for each information material.

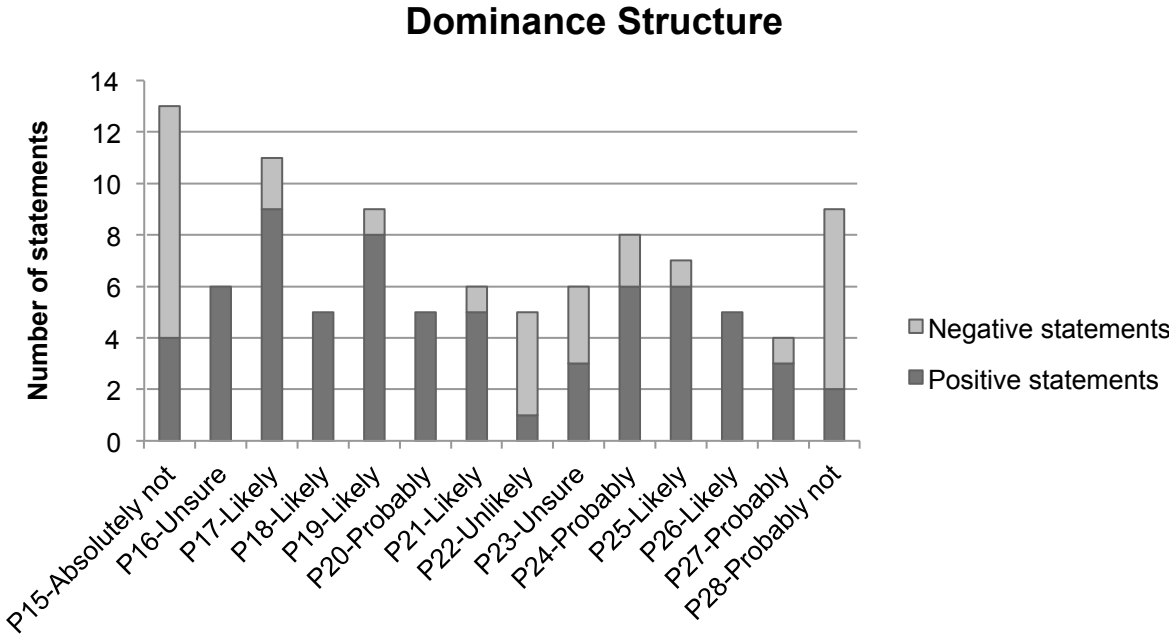


Most of the positive and negative statements arose from the brokerage prospectus as every participant said at least four positive statements about it. Also, P25 and P27 said only positive statements about the condominium when they read the brokerage prospectus. Thus, just as in study 1, the brokerage prospectus appeared to be the information material that gave rise to most opinions. Moreover, the financial overview was the information material that generated second most negative and positive statements as all participants expressed some positive and/or negative opinion about the condominium when examining this information. Also, as many as six participants had only positive statements to say about the condominium when they read the financial overview and no one said only negative statements. After the financial overview did the board of directors' report gave rise most valued statements. All participants expressed an opinion about the condominium when reading this and mostly between only 2 and 4 valued statements. At last, the annual report only generated valued statements for eight out of 14 participants. The six participants that generated statements of negative or positive character only expressed one or two opinions.

The next step in the approach to determine if there was a dominance structure going on or not was to split the protocols in two parts and see how many positive and negative statements were said for each half. As expected, reviewing the coded protocols revealed more valued statements in line with the final decision in the other half of the protocols. For instance, if the final decision was to absolutely buy the condominium, more positive than negative statements about the condominium was found in the latter half. As seen in Figure 12, dominance structure seen to have ben

found for 13 out of 14 participants. The reason why P16 deviated from this behavior is unclear and is seen as an outlier. For example, the presence of a dominance structure was evident for participant P26 who deemphasized the fact that the association had a negative financial result as he/she favored the decision to buy.

Figure 12. An illustration of the number of positive and negative statements in the second part of the protocols and the participants' final decisions.



As in study 1, more valued statements were found in the first half of the protocols, see Table 18. An explanation to this could be that the dominance structure started earlier in the process. It could also be as a result of the fact that the first half of the protocols consisted of statements from the brokerage prospectus and sometimes parts of the financial overview. Those information material generated most positive and negative statements overall.

Table 18. Number of positive and negative statements for each half of the protocols.

Participant	Part 1	Part 2	Total
P15	7:4	4:9	11:13
P16	8:2	6:0	14:2
P17	8:2	9:2	17:4
P18	8:1	5:0	13:1
P19	6:1	8:1	14:2
P20	9:2	5:0	14:2
P21	6:2	5:1	11:3
P22	8:5	1:4	9:9
P23	5:2	3:3	8:5
P24	9:4	6:2	15:6
P25	4:0	6:1	10:1
P26	11:1	5:0	16:1
P27	6:1	3:1	9:2
P28	3:3	2:7	5:10

Conclusion about dominance structure in study 2: The brokerage prospectus gave rise to most valued statements followed by the financial overview. Also, an indication could be found that dominance structure was part of almost all participants' decision-making processes.

4.2.5 Main Findings from Study 2

- Condominium buyers searched for information using a combination of active and passive search strategy. Also, they preferred to examine the information in the following order: (1) brokerage prospectus, (2) financial overview, (3) board of directors' report, and (4) annual report. The importance of each information material was ranked in the same order.
- Attributes that most buyers looked for in the:
 - Brokerage prospectus: address, pictures, layout and the facts: price, m², monthly fee and what is included, balcony, the floor number and elevator. The realtor's description was examined in about half the cases.
 - Financial overview: No specific attribute as all information as reviewed including the explanations of economic terms. The information seemed to have been well understood.
 - Board of directors' report: age of building, future and previous renovations and maintenance.
 - Annual report: Mostly to double-check numbers from the financial overview.
- Several condominium buyers changed their minds after reading other information than the brokerage prospectus. All participants that changed their minds did so after examining the financial overview.
- There is indication that dominance structuring occur in the decision process.

4.3 Comparison of Study 1 & 2

This section includes a comparative discussion of the results from study 1 and 2.

First of all, the participants search behavior was presented. The results showed that condominium buyers in both studies were characterized as having a combination of active and passive search behavior. Also, condominium buyers seemed to examine information in a certain order as all participants preferred to review the brokerage prospectus before the financial information. However, the search order seemed to be driven by different factors between the studies. In study 1, the non-manipulated study, the search order was influenced by what participants have examined before. If the participants found the brokerage prospectus appealing, they moved on to the board of directors' report or the annual report. If not, there was a tendency to disregard the financials. A majority of individuals in study 1 argued that they had a difficulty in interpreting the financial information that they were presented with. On the other hand, in study 2, the search order was independent of the participants' opinions. After the brokerage prospectus, all participants moved on to the financial overview. Then, people had a tendency to look at the board of directors' report and the annual report at last. An interesting observation was that four participants chose to exclude the annual report from the decision making process after having read the financial overview. Indications point towards that the financial overview facilitated the understanding of the association's financial situation for condominium buyers. Finally, all participants searched for similar attributes in each information material. In the financial overview, participants in study 2 reviewed all factors including the explanatory descriptions of economic terms.

Second of all, the participants' decision and change in decision was presented. The participants in study 1 had different opinions about the condominium (half were interested and half were unsure or uninterested in buying) and most tended not to change their minds after reading the brokerage prospectus. On the other hand, in study 2, most condominium buyers had positive opinions about the condominium. Also, the participants in study 2 were more inclined to changing their decisions after they read other information than the brokerage prospectus than in study 1. All participants that did change their minds did so after reading the financial overview.

Third of all, the participants' self-estimated weighting of information and use of time were discussed. In both studies, the brokerage prospectus seemed to distinctively be the most important information to consider when buying a condominium. After that, a slight indication points towards that the board of directors' report is more important than the annual report in study 1. In study 2, the second most important information material for almost all participants was the financial overview. After that came the board of directors' report and least important was the annual report. The annual report seemed to have lower importance in study 2 than in study 1.

Finally, there is an indication that dominance structure was evident in the participants' decision-making processes in both studies.

4.4 Survey After Experiment

A survey was conducted after the experiment for study 1 and 2 with the purpose of giving the participants a chance to express their opinions about the studies' design and the information material. See the post-experiment survey in Appendix. All participants answered the survey in both studies and the questions that are judged as being of highest relevance for this thesis are discussed. The self-estimated weighting of information was included in the survey, but it will not be discussed in this section because it has already been discussed in sections 4.1.3 and 4.2.3.

The survey was introduced with the question "Did you feel motivated to participate in the experiment?". Here, all the participants in study 1 and study 2 answered either 4 or 5 meaning that they were either absolutely motivated or largely motivated to participate.

The second question was "How realistic did you experience the experiment?". For this question, the participants in study 1 and study 2 answered an average of 4,9 and 4,7. No participant answered below 4, which indicate that all participants either thought it was very realistic or quite realistic. The quotes bellow illustrates this.

"I was motivated and the case felt very realistic. I would most likely have proceeded in the same way if it was reality" - Participant P1.

"The experiment was very real and especially relevant for me as I am current in the process of looking for a condominium in the same area" - Participant P5.

Moving on to the following two questions, the purpose was for the participants to express if they thought they had all information they needed in order to make a decision and if not, they could comment on what other information they would have needed. Here, the participants in both studies answered that they either absolutely had all information needed or that they virtually had all information they needed to make a decision. In study 1, two participants expressed the need to see the condominium live. In study 2, three participants wrote that they would have wanted to see the apartment in real life and one expressed the wish to talk to the broker.

Finally, there was a question that said, "What did you think of the case in the experiment?". Here, the scale was from 1 to 5 with 1 being "very easy to assess" and 5 being "very difficult to assess". On average the participants in study 1 answered 0,9 and the average participant in study 2 answered a 1,3. In both studies, it varied between 1 and 3. Thus, no participant thought it was a difficult case to assess.

5. Discussion

Chapter 5 provides a discussion about the main findings in this thesis. It is introduced by answering the research questions. The results' implications for the academic and practical world are then described including recommendations for future research. Finally, the chapter ends with taking a critical view on this thesis.

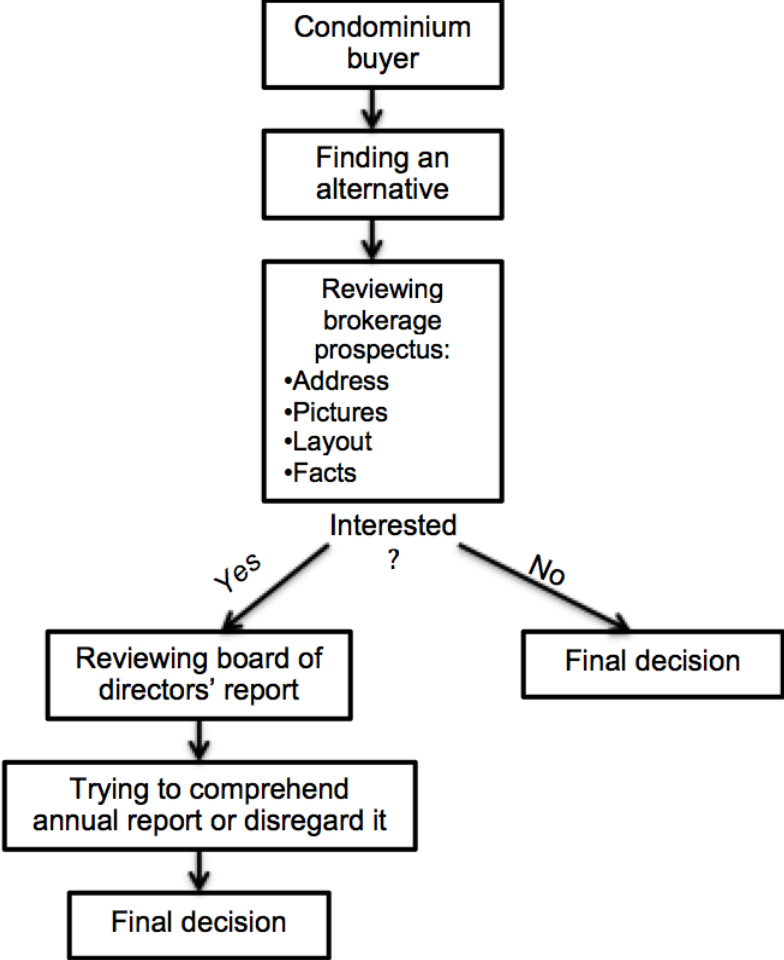
5.1 How do individuals make decisions when buying a condominium?

The analysis of the protocols in study 1 indicates that condominium buyers have a certain order in which they prefer to examine information in the decision-making process. Firstly, they read the brokerage prospectus using a combination of passive and active strategy. In the brokerage report, condominium buyers mainly look at the pictures, the overall layout of the apartment and some facts like price, monthly fee and what's included, if there is a balcony and elevator, the floor in which the apartment is located, and area of the condominium's location. Then, if the information in the brokerage prospectus is appealing, they move on to the board of directors' report and sometimes the annual report.

After that do most condominium buyers form their final decisions, as most condominium buyers do not change their minds after reading other information than what is in the brokerage prospectus. This means that they do not seem to be influenced by financial information of the association. Indications point towards that one reason for this is that the annual report is difficult for most condominium buyers to interpret and thus form opinions about. This is critical as buyers might miss out on

information that can impact their private financial situation in the future as increase in costs or loans in the association eventually reflects the monthly fee. Also, the brokerage prospectus seems to be the most important information in the decision-making process followed by the board of directors' report and the annual report.

Figure 13. Proposed model for condominium buyers' decision-making process today.



Finally, indications point towards that dominance structuring is part of most condominium buyers' decision-making processes. This implies that about half of the analysis was done while the participants were in favor of a certain decision. Thus, the risk is that condominium buyers make decisions that are based on information that is distorted as certain information could be deemphasized if they spoke against the decision that was in favor.

5.2 Does the presentation format of a condominium association's financial situation influence buyers' decision-making processes?

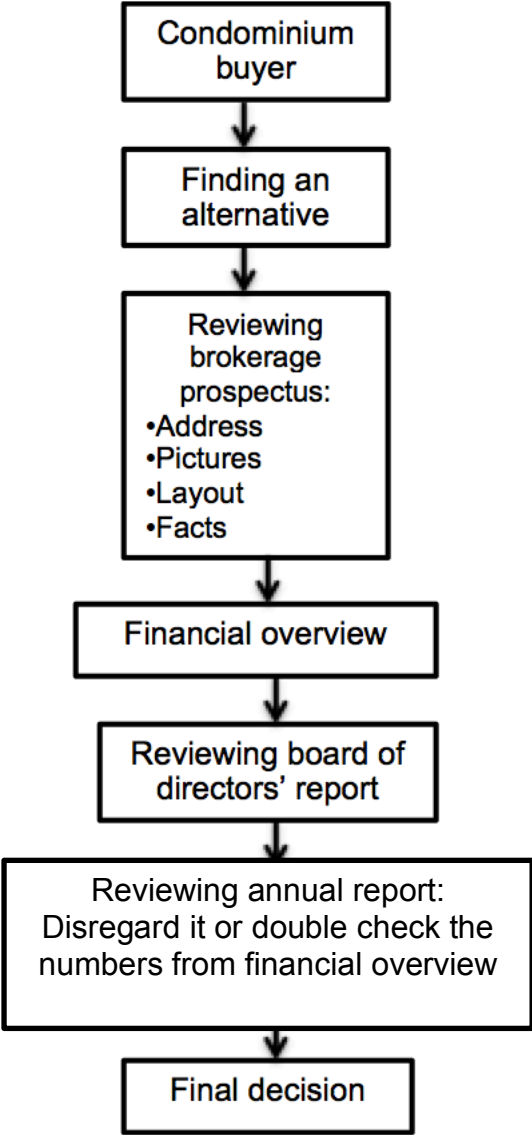
The protocols in study 2 revealed interesting findings about that condominium buyers' decision-making processes can be influenced through a different presentation format of the financial information.

If the financial information is presented in a more easily understandable way, the search order is affected as all participants reviewed it despite their opinions from the prior examined brokerage prospectus. More importantly, there are indications that the presentation format of financial information can influence a change in decision. This implies that the financial information of the association is valued in the decision-making process. Finally, it is indicated that presenting the financial information in a more easily understandable way led to that it was a more important part of the decision-making process. See Figure 14 for proposed model of buyers' decision-making process when exposed to a presentation format that makes the financial information easily understandable.

Furthermore, it seems as a dominance structure occur also when buyers are exposed to another presentation format. Thus, dominance structuring seems to be a natural or unconscious part of condominium buyers' decision-making process making it difficult to impact. As dominance structuring increases the risk of distorting, the rational thing for condominium buyers to do would be to try to avoid dominance structuring and make decisions based on objective and well-thought-out analysis throughout the entire decision-making process. Therefore, dominance structuring

may come natural to condominium buyers because of individuals' tendency to not be fully rational in their behavior (March, 1994).

Figure 14. Proposed model for condominium buyers' decision-making process when presenting financial information in an easily understandable way.



5.3 Implications & Directions for Future Research

5.1.1 Implications to the Area of Organizations & Expert Society

In terms of organizations and expert literature, this thesis contributes with small steps to better understanding about the non expert role that condominium buyers have in society and the important role that realtors have to use their expertise in helping the buyers make well-founded decisions. A way of doing so is through the use of a different presentation format of financial information.

Also, this is a contribution that may be of interest to stakeholders and have managerial implications to organizations such as real estate agencies and the organizations of condominium associations. Adapting the policy of presenting financial information in more easily understandable ways can have positive impacts on potential condominium buyers' or condominium association members' ability to make decisions. This thesis found that more condominium buyers were impacted by other information than the brokerage prospectus in their decision to buy or not to buy the condominium if they were exposed to financial information that was presented in a way that was easily comprehensible (the financial overview). Also, this thesis has shown that a few more buyers were interested in buying the condominium if they reviewed the financial overview compared to those participants that only reviewed the annual report. Future researchers are recommended to look more into this and conduct a larger study in order to apply more implications to management.

5.1.2 Implications to the Area of Decision-Making

As predicted, the results from the studies in this thesis are in line with Montgomery's (1989) search for dominance model in decision-making. Thus, this thesis has contributed by showing that the decision-making model in dominance structure could also be applied to condominium buyers. Future research could take this a step further and determine more precisely when dominance structuring starts occurring in the decision-making process. It would also be interesting to know if a dominance structure can be found if condominium buyers got several alternative condominiums to choose from.

5.1.3 Implications to the Area of Non-Experts

According to theory, non-experts are characterized as having a passive strategy in their search for information and they quickly lean towards a decision (Bouwman, 1984; Camerer & Johnson, 1991; Andersson, 2004). In this thesis, condominium buyers quite quickly leaned towards a decision. However, this was especially true for the study with no manipulation (study 1). An explanation to this might be that it was due to the fact that a large majority of participants had a difficulty in fully comprehending the annual report. Further, the condominium buyers seemed to be characterized as having a combination of passive and active strategy in terms of search behavior. With this in mind, this thesis has contributed with an understanding that condominium buyers share traits of non-expert individuals. Also, this thesis has shed light into the area of search behavior for condominium buyers. Future studies could be directed towards understanding how those individuals that are experts in condominium buying search for information and make decisions.

5.1.4 Implications to the Area of Presentation Format

Literature about presentation format suggests that it can assist individuals' decision-making when processing a large quantity of data because it reduces cognitive effort (Brown & Eining, 1996; Rose, 2002). This is especially true when key financial information is presented with colorful graphics (Hall & Hanna, 2004; Wright, 1983,1988, 1989). This is in line with the results from this thesis. First of all, all participants that received the financial overview (less cognitive effort) preferred to review it before the annual report (more cognitive effort). Also, most participants expressed a difficulty in understanding the annual report fully. Secondly, many condominium buyers tended to change their minds after reading the financial overview. This could be seen as an indication that the financial overview facilitated the understanding of financial information and in turn allowed the participants to make more informed decisions. Thus, this thesis contributes to presentation format research by showing that presentation format can have an impact in the area of condominium buying. Also, this study adds contribution by illustrating that most condominium buyers prefer reading information that requires little cognitive effort as it enables them to understand more information and thus make more informed decisions. Also, this thesis opens up directions for future research about which presentation format that is most effective when trying to impact buyers.

5.1.5 Implications to the Area of Condominium Buying

Finally, previous theses say that even though both brokerage firms and buyers agree that the association's financial situation is relevant, there is no support for that it has an impact on the final price (Backlund & Hallberg, 2008; Hammarström & Erlandsson, 2012; Johansson & Danielsson, 2010). This thesis clarifies the role that the financial information has in the decision process among condominium buyers. This thesis show that the financial information is an important part of the decision-making process. Also, financial information is a more important part of the decision-making process for more condominium buyers if the information is presented in a more easily understandable way. Because this thesis did not study if the presentation format of financial information mirrors the final price of condominiums, this opens up for future research.

5.4 Critique of Thesis

Like all theses, this thesis has aspects to criticize. First of all, the choice of method can be criticized. Because verbal protocols was chosen, the number of participants was limited and this bounds the extent to which the results can be generalized. In order to capture a larger sample of respondents it would be difficult to use verbal protocols, which would require another chosen method. However, this would probably not have generated better results, as it may not have provided the same deep understanding of condominium buyers' decision-making processes.

Another aspect to criticize is the risk of demand effect. Demand effect refers to "changes in behavior by experimental subjects due to cues about what constitutes appropriate behavior" (Zizzo, 2008). Two ways in which this effect has tried to be decreased is by granting anonymity and minimizing the social interaction between me, who the experimenter, and the participants.

A final critique toward this thesis is regarding the study material. It may be criticized, as it did not include visiting the condominium in real life before making the final decision. However, there were only a few participants that expressed the wish to see the condominium in real life and the brokerage prospectus included many and clear illustrations of the condominium. Thus, most participants got a good understanding of the condominium by looking at the pictures. The rest of the study material is believed to be very much like a real life situation. This was the opinion of all participants as well as professionals within the field.

Bibliography

Literature

Aktulga, C. & Aronsson, K. (2012). "Price formation on the Stockholm condominium market: An econometric cross-sectional study of underlying factors", Linköping: Linköping University.

Andersen, I. (1998). "Den uppenbara verkligheten – val av samhällsvetenskaplig metod", Lund: Studentlitteratur.

Andersson, P. (2001). "Expertise in Credit Granting: Studies on Judgment and Decision-Making Behavior", Stockholm: EFI, The Economic Research Institute.

Andersson, P. (2004). "Does experience matter in lending? A process-tracing study on experienced loan officers' and novices' decision behavior". *Journal of Economic Psychology*, Vol. 25, pp. 471-192

Andersson, J. & Mueller, J.M. (2005). "The Effects Of Experience And Data Presentation Format On An Auditing Judgment", *The Journal of Applied Business Research*, Vo 21.

Ashton, R.H. (1981). "A descriptive study of information evaluation", *Journal of Accounting Research*, pp 42-61.

Backlund, J. & Hallberg, L. (2008). "Årsredovisningen som beslutsunderlag vid köp av bostadsrätt – en undersökning i HSB bostadsrättsföreningar", Borås: University of Borås.

Barlas, S. (2003). "When choice give in to temptations: Explaining the disagreement among important measures", *Organizational behavior and decision processes*, Vol. 91, pp. 310-321.

Beach, L.R. & Mitchell, T.R. (1987). "Image Theory: principles, goals and plans in decision making", *Acapsychologica*, Vol. 66, pp. 201-220.

Beach, L.R. & Mitchell, T.R. (1978). "A contingency model for the selection of decision strategies", *Academy of Management Review*, Vol. 3, pp 439-449.

Bedard, J. (1989). "Expertise in Auditing: Myth or reliability", *Accounting, Organizations and Society*, Vol. 14, pp. 113-131.

Bertin, J. (1983). "The semiology of graphics", University Wisconsin Press: Madison Wisconsin.

Bolger, F. & Wright, G. (1992). "Reliability and validity in expert judgment". In F. & G. Wright (Eds.), "Expertise and decision support", pp. 47-76. New York: Plenum Press.

Bouwman, M. J. (1984). "Expert Versus Novice Decision Making in Accounting", *Accounting, Organizations and Society*, pp. 325-327.

Bouwman, M.J; & Frishkopf, P.(1987). "How do financial analysts make decisions? A process model of investment screening decision", *Accounting, Organizations and Society*, Vol. 12, pp. 1-29.

Brown, D. & Eining, M.M. (1996). "The Role of Decision Aids in Accounting: A Synthesis of Prior Research", *Advances in Accounting Information Systems*, pp 305-332.

- Bryman, A. & Bell, E. (2011), "*Business research methods*", 3rd edition, New York: Oxford University Press.
- Camerer, D.F. & Johnson, E.J. (1991). "*The process –performance paradox in expert judgment: how can experts know so much and predict so badly?*", In k.A. Ericson & J. Smith (Eds.), *Toward a general theory of expertise: Prospects and limits*, Cambridge, UK: Cambridge University Press.
- Chervany, N.L. & Dickson, G.W. (1974), "Experimental evaluation of information overload in a production environment", *Management Science*, Vol. 20, pp 1335-1344.
- Chi. M. T. H.; Glaser, R.; Rees, E. (1982). "*Expertise in Problem Solving, in Sternberg*", R. J. (Eds), *Advances in the psychology of Human Intelligence*, Vol. 1, Hillsdale, NJ: Lawrence Erlbaum.
- DeCroot, A. D. (1965). "*Thoughts and Choice in Chess*", Mouton: The Hague
- Desanctis, G. & Javenpaa, S. (1989). "Graphical Presentation of Accounting Data for Financial Forecasting: An experimental Investigation", *Accounting Organizations and Society*, Vol. 14, No. 5/6, pp. 509-525.
- Drucker, P. (2006). "*The Practice of Management*", Reissue Edition, New York: HarperBusiness
- Dull, R.B; Graham, A.W and Baldwin, A.A. (2003). "Web-based Financial Statements: Hyperlinks to Footnotes and their Effect on Decisions", *International Journal of Accounting Information Systems*, Vol. 4, pp 185-203.
- Ericson, K. & Simon, H.A. (1993). "*Protocol analysis: verbal reports as data*", Cambridge, MA: The MIT Press.
- Furusten, S. & Werr, A. (2012). "*Expert-samhällets organisering: Okunskapens triumf?*", Studentlitteratur AB: Lund.
- Ghani, E.; Laswad, F.; Tooley, S.; Jusoff, K. (2009). *The role of presentation format on decision-makers' behaviour in accounting*. *International Business Research*, 2(1). pp. 183-195.
- Gorman, Rosa, Faseruk (2005). "Institutional Lending to knowledge-based businesses". *Journal of Business Venturing*, 20, pp. 793-819.
- Grey, C. (1998). "On being a professional in a Big Six firm", *Accounting, organization and society*, Vol. 23, pp. 569-587.
- Hall, R. and Hanna, P. (2004). "The Impact of Web Page Text-Background Color Combinations on Readability, Retention, Aesthetics, and Behavioral Intention", *Behaviour & Information Technology*
- Hammarström, M. & Erlandsson, E. (2012). "*Bostadsrättsföreningars årsredovisning: Hur används årsredovisningen av olika intressenter*". Gothenburg: University of Gothenburg.
- Hayes-Roth, F.; Waterman, I. A.; Lenat (1983). "*Building Expert Systems*", MA: Addison-Wesley.
- Hoffman, R.; Shadbolt, N.; Burton, A.; Klein, G. (1995). "Eliciting knowledge from experts: A methodological analysis", *Organizational behavior and human decision processes*, Vol. 62, pp.129-158.
- Jacobsen, D. (2002). "*Vad, hur och Varför?*", Lund: Studentlitteratur.
- Johansson, J. & Danielsson, M. (2010). Johnson, P. & Lundström, P. (2004). "*Bostadsrättsföreningens ekonomi; En bortglömd faktor vid värdering av bostadsrätter*", Halmstad: University of Halmstad

- Leivian, G. M. (1980). "How to Communicate Financial Data More Effectively", *Management Accountants*, pp. 31-34.
- Lindblad, E. (2011). "*Bostadsrätt och hedoniska priser - En studie av Stockholms bostadsmarknad*", Stockholm: Södertörn University.
- Lundén, B. & Svensson, U. (2004). "*Bostadsrätt: ekonomi, skatt och juridik för föreningen och medlemmarna*", Näsviken: Björn Lundén Information AB.
- Lundén, B. (2006). "*Redovisning i bostadsrättsföreningar*", 1 ed, Uddevalla: Björn Lundén Information AB.
- Mains, L. & McDaniel, L. (2000). "Effects of Comprehensive-Income Characteristics on Non-Professional investors' judgments: The role of financial statement presentation format", *The Accounting Review*, Vol. 75, No. 2.
- March, J. (1994). "*A primer on decision-making: how does decisions happen*", The Free Press: New York.
- Montgomery, H. (1989). "From cognition to action: the search for dominance in decision making". In H. Montgomery & O. Svenson (Eds.), *Process and Structure in Human Decision Making*, John Wiley & Sons.
- Nordemalm, A. & Pütz, J. (2004). "*Att rekommendera eller inte rekommendera? – En studie av aktieanalytikens beslutsprocesser*", Stockholm: Handelshögskolan i Stockholm.
- Ottinger, L.L. (1993). "*Understanding the effectiveness of multimedia technology as a persuasive tool: An experimental investigation*", PhD Dissertation, Texas: A&M University.
- Payne, J.W (1976). "Task Complexity and Contingent Processing in Decision Making: An Information Search and Protocol Analysis", *Organizational behavior and human performance*, Vol. 16, pp. 366-387.
- Payne, J.W (1982). "Contingent decision behaviour", *Psychological Bulletin*, Vol. 92, No. 2, pp 382-402.
- Rose, J.M. (2002). "The effects of multimedia-induced affective states on recall and decision making by individual investors", *International Journal of Accounting Information Systems*, Vol. 2, pp 22-40.
- Roll, N. (2005). "*Vad påverkar priset på en bostadsrätt?*", Stockholm: Stockholms Universitet
- Russo, J.E.; Johnson, E.J.; Stephens, D.L. (1989). "The validity of verbal protocols", *Memory and cognition*, Vol. 17, pp. 759-769.
- Russo, J.E.; Shoemaker, P. (1990). "*Decision Traps: ten barriers to brilliant decision-making and how to overcome them*", New York: Simon & Sshuter Books
- Sánchez-Manzanares, Rico & Gil (2008). "Designing Organizations: Does Expertise Matter?", *Journal of Business and Psychology*, Vol. 23, No. 3/4, pp. 87-101
- Coram, Mock & Monroe (2011). "Financial analysts' evaluations of enhanced disclosure of non-financial performance indicators", *The British Accounting Review*, pp. 87-101.
- Schulz, A.; Booth, P. (1995). "The Effects of Presentation Format on the Effectiveness and Efficiency of Auditors' Analytical Review Judgments", *Accounting and Finance*.

- Shanteau, J., 1995. "Expert judgment and financial decision making", In: Green, B. (Ed.), *Risky Business*, pp. 16-32, Stockholm: University of Stockholm School of Business.
- Shanteau, J., 1999. "Decision making by experts: The GNAHM effect", In: Shanteau, J., Mellers, B.A., Schum, D.A. (Eds.), *Decision Science and Technology: Reflections on the Contributions of Ward Edwards*, pp. 105-130, Boston: Kluwer Academic Publishers.
- Shanteau, J.; Weiss, D.J.; Thomas, R.P.; Pounds, J.C. (2000). "Performance-based assessment of expertise: How to decide if someone is an expert or not", *European Journal of Operational Research*, Vol. 136, pp. 253-263.
- Simon, H. (1986). "Rationality in psychology and economics", In R. M. Hogarth & M Reder (Eds.), *Rational choice: The contrasts between economics and psychology*, pp. 25-40, Chicago: The University of Chicago Press.
- Söderlund, M. (2010). "*Experiment med människor*". 1 uppl., Malmö: Liber AB
- Sias, C. P. (1970). "Financial Communication with Graphics", *Management Accounting*.
- Smith, D. (2006). "*Redovisningens språk*", 3 uppl., Lund: Studentlitteratur.
- Svenson, O. (1989a). "Eliciting and analysing verbal protocols in process studies of judgment and decision making", In H. Montgomery & O. Svenson (Eds.). *Process and structure in human decision making*, London: John Wiley and Sons.
- Svenson, O. (1992). "Differentiation and consolidation theory of human decision making. A frame of references for the study of pre- and post- decision process", *Acta psychologica*, Vol. 80, 143-168.
- Svenson, O. (1996). "Decision Making and the Search for Fundamental Psychological Regularities: What Can Be Learned from a Process Perspective", *Organizational Behavior & Human Decision Process*, vol. 65, pp. 252-267.
- Victorin, A. & Melz, P. (1996). "*Bostadsrätt*", 3 uppl., Stockholm: Juristförlaget
- Wright, W. F. (1983). "*Covariation Assessments: Evidence for the Usefulness of Graphical Displays*", Unpublished Working Paper, Minnesota: University of Minnesota.
- Wright, W. F. (1988). "Superior Decisions Using Graphs", Unpublished working paper, California: University of California.
- Wright, W. F. (1989). "Graphical Displays and Improved Decision Making", In Garson, G. D. & Nagel, S. (eds) *Computers and the Social Sciences*, Greenwich, CT: JAI Press.
- Yin, R.K. (1994). "*Case study research – design and methods*", London: Sage publications.
- Zizzo, D. (2008). "Experimenter demand effects in economic experiments", *Social science research network discussion paper*.

Electronic Sources

1.SCB (2015-09-30). *Hushållens bolån bidrar till ökad utlåningstillväxt*. (Electronic) Rapport. Stockholm, SCB. Available: http://www.scb.se/sv_/Hitta-statistik/Statistik-efter-amne/Finansmarknad/Amnesovergripande-statistik/Finansmarknadsstatistik/Aktuell-Pong/37270/Behallare-for-Press/390881/

2-3. Svensk Mäklarstatistik (2015-10-01). *Fördjupad statistik*. Rapport. Stockholm, Svensk Mäklarstatistik AB. Available: http://www.maklarstatistik.se/media/19266/f%C3%B6rdjupad_statistik_201506.pdf

4.Di.se (2015-10-17). *Nu blir det lättare att köpa lägenhet*. Stockholm, Dagens Industri. Available: <http://www.di.se/artiklar/2015/9/15/nu-blir-det-lattare-att-kopa-lagenhet>

Appendices

Appendix 1: Participants

Participant	Male/Female	Age	Occupation Area
P1	Female	25	Insurance
P2	Female	46	Self-employed
P3	Male	42	Marketing
P4	Female	44	Sales
P5	Male	24	Branding
P6	Male	25	Self-employed
P7	Female	23	Student
P8	Female	27	Self-employed
P9	Female	42	Self-employed
P10	Male	41	Construction
P11	Female	40	Sales
P12	Male	25	Marketing
P13	Male	26	Self-employed
P14	Female	23	Student
P15	Male	33	Engineer
P16	Female	25	Marketing
P17	Female	24	Researcher
P18	Male	25	Retail
P19	Female	24	Student
P20	Female	24	Healthcare
P21	Male	28	Self-employed
P22	Male	30	Tiler
P23	Female	26	Beauty
P24	Female	24	Sales
P25	Male	25	Student
P26	Female	25	Retail
P27	Femake	24	Retail
P28	Male	27	Consultant

Appendix 2: Pre-exercise⁹ (translated version)

From now on, please think aloud.

In an office that often handle patents work 70 lawyers and 30 engineers. One of the employees is Amos. Amos is 50 years old, married and has four children. He is conservative, meticulous, careful and ambitious. He is not interested in politics or social sciences. During his spare time, he likes to do his hobbies: joinery, sailing, and mathematical puzzles.

What is it most likely that Amos works as? A lawyer or an engineer?

Appendix 3: Instructions¹⁰ (translated version)

Imagine the following:

You are looking for a new condominium. You are looking for a two-room apartment in Stockholm and you have found an alternative that is within your budget. Now, you are going to decide if you want to buy this condominium or not.

To your help you got three (four) pieces of information material: A brokerage prospectus, board of directors' report, annual report (and a financial overview). You can **only** examine **one** information material at a time. Please **answer** the question at the bottom of the page when you are finished with each information material.

You are allowed to use the information in any way you like. In other words, there are no requirements on how you should proceed. You can read each information material however long time you wish and you are allowed to make notes and use the calculator meanwhile. You are also allowed to go back to information material if you wish. The only thing that is required of you is that you think aloud by telling me how you proceed

When you are ready to make a decision, the experiment is over and you are to decide if you want to buy the condominium or not.

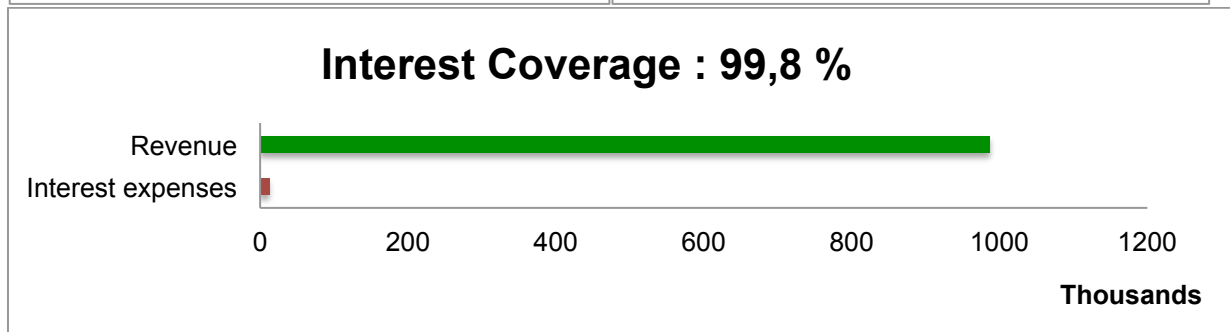
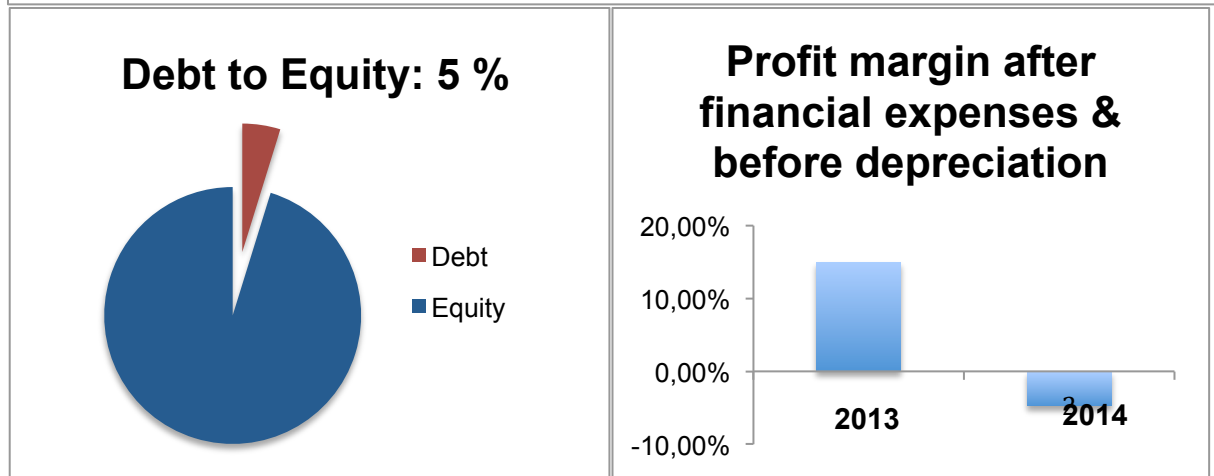
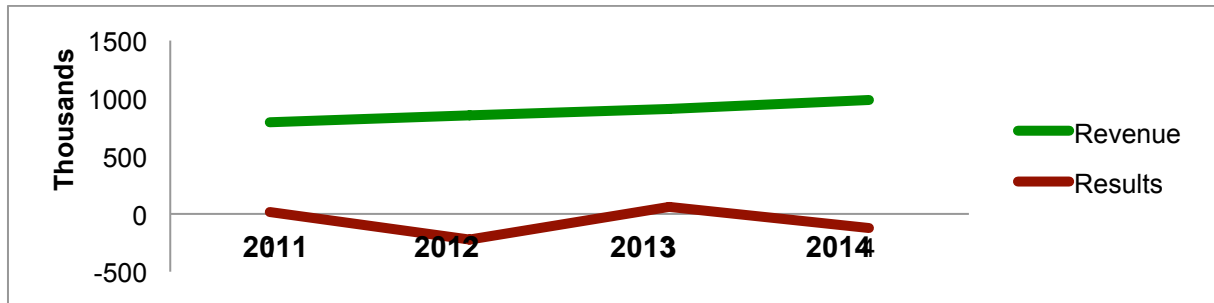
You have the right to ask me questions if uncertainty arises. However, you should try to solve that task on your own as much as you can to avoid disrupting your thought process.

⁹ Also used in the study of Nordemalm & Pütz (2004)

¹⁰ Inspired by the instructions used in the study of Nordemalm & Pütz (2004)

Appendix 4: Financial overview, presented in color (translated version)

FINANCIAL OVERVIEW OF THE CONDOMINIUM ASSOCIATION

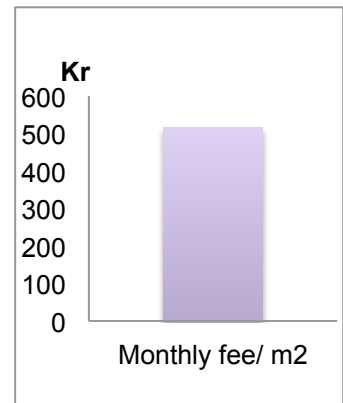


Explanations

Debt to Equity: The association has little debt in relation to equity. A high debt to equity ratio implies that the association has limited possibilities to take on more loans in order to cover expenses.

Interest Coverage: The association's revenues are large in relation to their interest costs. An association with high interest coverage has well-adapted fees in relation to their interest expenses.

Profit margin (after financial expenses & before depreciation): The association has a somewhat weak result in relation to turnover 2014, but a strong result 2013. A low profit margin means that the current fees do not cover the costs.



After reading this information, in which direction does your decision point towards?

Buying the condominium...

Absolutely not	Unlikely	Probably not	Unsure	Probably	Likely	Absolutely
0	1	2	3	4	5	6

Appendix 5: Survey after experiment¹¹ (translated version)

Survey for evaluation of the experiment regarding decision-making of condominium

Efter participating in the experiment, please answer the questions below.

1. Did you feel motivated to participate in the experiment?

Absolutely not Generally speaking no Unsure Generally speaking yes Absolutely

2. How realistic did you experience the case in the experiment?

Very unrealistic Quite unrealistic Neither unrealistic or realistic Quite realistic Very realistic

Comment:

3. Was the information sufficient in order to make a final decision?

Absolutely not Generally speaking no Unsure Generally speaking yes Absolutely

4. If not sufficient, what information did you miss?

5. What is your opinion about the case in the experiment?

Very easy to assess Quite easy to assess Neither easy or difficult to assess Quite difficult to assess Very difficult to assess

¹¹ Also used in the study of Nordemalm & Pütz (2004)

6. Do you think that you based your final decision mainly on intuition/feeling rather than fundamental analysis?

Absolutely not Generally speaking no Unsure Generally speaking yes Absolutely

7. Do you think that your decision is similar to what other participants have decided?

Absolutely not Generally speaking no Unsure Generally speaking yes Absolutely

8. How important do you estimate that each information material had in your final decision to buy or not to buy the condominium? Please weight the different information material in percent adding up to 100.

Information Material	Weighting in %
Brokerage Prospectus	
Board of Directors' Report	
Annual Report	
Financial Overview	
	Sum of 100 %

9. Comments:
