

HIDE OR EMBRACE DRAWBACKS?

**A QUANTITATIVE STUDY OF THE IMPACT OF TWO-SIDED
MESSAGING IN THE ONLINE SECONDARY MARKETPLACE
SETTING**

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Bachelor Thesis

Stockholm School of Economics

2022



Hide or Embrace Drawbacks? – A Quantitative Study of the Impact of Two-Sided Messaging in the Online Secondary Marketplace Setting

Abstract:

In recent years, online secondary marketplace platforms have experienced rapid growth as both sustainability concerns and the demand for second-hand products have increased substantially. Despite this considerable growth, second-hand marketplaces have remained relatively understudied. This thesis aims to quantitatively investigate how one-sided and two-sided messaging affects consumer behaviour at Facebook Marketplace, one of the world's largest secondary marketplace platforms, using intention as a determinant. Two-sided messaging is messaging containing both positive and negative information. Previous findings on two-sided messaging showed a positive relationship to purchase intention. This thesis investigates the relationship between two-sided messaging and purchase intention using an experiment in the form of a self-completion questionnaire. The respondents were randomly divided into two different subject groups (one-sided versus two-sided) where they were exposed to a fictive Facebook Marketplace listing. Results show that two-sided messaging produces a higher level of purchase intention compared to the use of one-sided positive messaging. This indicates that presenting drawbacks in a product description is an effective tactic in the consumer-to-consumer context.

Keywords: Purchase intentions, Facebook Marketplace, Second-hand buying, Theory of Planned Behaviour, Message sidedness, Two-sided messaging

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Bachelor Thesis

Bachelor Program in Business and Economics

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Acknowledgements

We would like to express a special thanks to...

Hanna Berg for highly valuable feedback and support.

Patric Andersson for great lectures and seminars.

The respondents in our survey for taking time to participate.

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Definitions

Attitude: An individual's positive or negative evaluation towards a behaviour or an object.

Attitude certainty: Subjective feeling of conviction or validity in one's attitude and/or the extent to which an individual believes their attitude is correct (Rucker & Petty, 2004).

Facebook Marketplace: The online secondary marketplace at the social media platform Facebook.

Purchase Decision Involvement (PDI): The extent of interest and concern that a consumer brings to bear upon a purchase-decision task (Mittal, 1989).

Purchase intention: The individual's motivation, plan, and willingness to perform a purchasing behaviour.

One-sided messaging: Messaging consisting of only positive or negative information (Rucker et al., 2008).

Online secondary marketplace: A digital location in which individuals conduct exchange transactions of second-hand products.

Message framing: The structuring of a message without changing the attributes and appeals of an object or product (Rucker et al., 2008).

Second-hand buying: The acquisition of used objects through often specific retail formats and places of exchange, both offline and online (Guiot & Roux, 2010).

Second-hand products: Items that have already been owned and/or used by at least one person prior to the present user (Cervellon et al., 2012).

Subjective knowledge: How much a person thinks they know about an alternative or a subject (Berger et al., 1994).

Two-sided messaging: Messaging consisting of both positive and negative information (Rucker et al., 2008).

1. Introduction

Consumers' preferences evolve. In the recent decade, the demand for second-hand products has experienced rapid growth (Goddevrind et al., 2021). Consequently, several consumer-to-consumer (C2C) secondary marketplaces, also known as online secondary marketplaces (e.g., eBay and Facebook Marketplace), have seen the light of day (Moriuchi & Takahashi, 2022). The use of second-hand online trading platforms to sell second-hand and unused items has been considered effective in promoting sustainable consumption, reducing resource waste, and solving environmental pollution problems (Parguel et al., 2017). In this light, the listings on the platforms have experienced considerable growth. For instance, the UK secondary marketplace *Gumtree* and France's *leboncoin*-platform both grew more than 50% in listings only between 2020-2021 (Goddevrind et al., 2021). However, despite this considerable growth, second-hand marketplaces have remained relatively understudied (Bauman & Bachmann, 2017) and thus, many questions are still unanswered. How do we get even more people to sell on these sustainable consumption-promoting platforms? Which tactics work when listing a product on a platform, and which do not? Those are only two out of many questions imaginable. To be transparent, we will not answer both of those questions in their entirety in this thesis. However, we aim at contributing with one piece to the puzzle, a piece related to the effects of presenting drawbacks in an online second-hand product description.

1.1 Background

1.1.1 Second-Hand Buying – The Reincarnated Form of Consumption

The acquisition of used objects through often specific retail formats and places of exchange, both offline and online, is called second-hand buying (Guiot & Roux, 2010). Second-hand products are referred to as items that have already been owned and/or used by at least one person before the present user (Cervellon et al., 2012). Second-hand buying has existed as a type of consumption since the middle of the 14th century. At that time, deep economic recession, increasing populations and mass starvation characterized Europe (Herjanto et al., 2016). The development of second-hand trading continued until the 18th-century industrial revolution. Then, due to the rise of mass production, newly produced products became increasingly available on the market. The increased accessibility of new goods changed the perception of used goods, which lost their meaning and started, due to their lower prices, to be treated as products for poor people (Borusiak et al., 2020). Since the 2000s, second-hand consumption has experienced renewed popularity and de-stigmatization (Ferraro et al., 2016; Guiot & Roux, 2010). This increased popularity is attributable to several marketplace shifts,

which include, but are not limited to, economic concerns and environmental concerns (Ferraro et al., 2016).

Today, second-hand products are available through physical marketplaces (such as flea markets, second-hand shops, vintage shops, auctions, and garage sales) and the internet (Herjanto et al., 2016). In the C2C environment, there are two types of transactions: (1) auction-based transactions and (2) direct transactions (Moriuchi & Takahashi, 2022). The latter is the focus of this study. It includes platforms such as Facebook Marketplace, Gumtree, leboncoin, craigslist, and Blocket.se.

1.1.2 Facebook Marketplace – The Multinational Secondary Marketplace

“Facebook helps you connect with friends, family and communities of people who share your interests.” (Meta.com, 2022)

The social media platform Facebook launched in the US in 2004. In Sweden, over 50% of the people using the internet use Facebook daily and Facebook is currently the second most-used platform (Andersson, J. et al., 2022). The online secondary marketplace platform Facebook Marketplace was launched in Sweden in 2017. It is a platform where Facebook users can sell and buy second-hand products from other users (TT Nyhetsbyrå, 2017). In Sweden, 28% of those who use Facebook also use Facebook Marketplace (Andersson et al., 2022). On the platform, you can sell or buy almost everything. A few exceptions, among others, include services, animals, healthcare products and alcohol. The exceptions are included in Facebook’s trade policy agreements and cover Facebook Marketplace, but also the other functions like buying- and selling groups, Facebook Shops, and Instagram Shops (Facebook.com, 2022).

1.1.3 Message Sidedness and Two-Sided Messaging

In marketing, persuasive messaging is a common practice. One type of persuasive messaging can be derived from the content of the message. Disclosing both positive and negative information is called two-sided messaging while disclosing only positive or negative information is called one-sided messaging (Rucker et al., 2008). Traditionally products have been positively presented to consumers, however, including some negative information in the message can still be more effective compared to presenting only positive information (Crowley & Hoyer, 1994). Presenting the drawbacks to a product can increase the credibility of a message, and in turn, a credible message can affect attitudes and lead to intention and behaviour change (Ajzen, 1991; Rucker et al., 2008). In the persuasion literature there is a lot of research on one-sided versus two-sided communication and attempts to explain the effects of two-sided messaging (e.g., Crowley & Hoyer, 1994; Eisend, 2006; Eisend, 2007). Even though there is a lot of research about two-sided messaging and two-sided marketing in a business-to-consumer (B2C) context there is little to none specifically within the C2C context.

1.1.4 Online Secondary Marketplaces and Information Asymmetry

In the C2C context, the seller of a product holds most of the information regarding the item sold (Jones & Leonard, 2014). This creates an issue of information asymmetry, which refers to a situation where there is an imbalance of information across participants (Goolsbee et al., 2020). Information asymmetry in an online exchange is particularly difficult since there is little possibility for the buyer to determine the trustworthiness of the seller until after the transaction has occurred. In B2C online exchange, buyers can alleviate the perception of information asymmetry in several ways, such as for instance by going to a physical store to inspect an item. However, at the C2C online secondary marketplace, there are more limited options for buyers to alleviate the uncertainty. Thus, information asymmetry often plays a larger role in the C2C context (Jones & Leonard, 2014).

Information asymmetry may give rise to opportunistic behaviour such as being untruthful about product quality. This, in turn, can lead to mistrust or even market failure (Akerlof, 1970). To reduce information asymmetry, many online services have emerged that provide information on sellers' reputation, such for instance eBay's Feedback Forum and the product review site Trustpilot.com (Ba & Pavlou, 2002). Most of the literature on reducing seller uncertainty highlights increasing reputation and trust as remedies (Dimoka et al., 2012). In this regard, two-sided messaging, as a catalyser of credibility, could be said to play a role in increasing the proliferation of the online second-hand economy.

1.2 Problem Statement

Since most research is concerned with the perceived value between the traditional retail store and the customers (i.e., B2C), online secondary marketplaces have received only limited attention for study (Bauman & Bachmann, 2017). Although online secondary marketplaces have grown rapidly over the past few years (Goddevrind et al., 2021), and are alleged to contribute to sustainable consumption, sellers and platform providers are still facing challenges in understanding consumers' perceived values, engagement, trust, and willingness to repeat their purchases (Moriuchi & Takahashi, 2022). This is problematic. If society is serious about the transition to sustainable consumption, it can no longer afford to ignore or passively acknowledge C2C platform actors and relationships. Just like in a B2C setting, sellers in a C2C context could benefit from knowing what tactics work, if transactions are to occur more frequently. Accordingly, it is of interest for sellers in the C2C context to know if a tactic which has been evidenced to work in a B2C setting, such as two-sided messaging, has the same effect in the C2C setting. Should C2C sellers use two-sided messaging and present drawbacks in their descriptions when listing their products, or should they rather skip it?

1.3 Purpose and Research Question

The primary purpose of this thesis is to investigate how one-sided and two-sided messaging affects consumer behaviour in an online secondary marketplace setting, specifically at Facebook Marketplace, using intention as a determinant. The research question that will guide us in fulfilling the purpose is:

How does the use of one-sided and two-sided messaging impact consumers' purchase intention on online marketplaces for second-hand products?

Additionally, we aim to look at two potential moderators and one potential mediator, to get a deeper understanding of the mechanisms between two-sided massaging and purchase intention. Moreover, we aim to investigate how one-sided and two-sided messaging affects message credibility, to explore other possible downstream impacts.

1.4 Expected Contribution

Message sidedness is a well-researched area within marketing, communication, and persuasion literature. However, to the greatest of our knowledge, no message sidedness studies have been conducted within the C2C context. Thus, we aim to contribute to the research within marketing, specifically message sidedness, with this thesis work. As a by-product, we also expect to contribute to the C2C literature, which to this day has received relatively little attention. Additionally, we aim to provide practical contributions in the shape of concrete actionable advice for sellers and platform providers on how they should relate to two-sided messaging.

1.5 Delimitations

One delimitation of the thesis arises from the authors choice of limiting the data collection to Sweden even though the research question is not limited to any geographical scope. This delimitation is due to two separate reasons. First, the Swedish population is suitable since it is homogenous, people have equal access to the internet and many use Facebook daily, in turn improving the data collection. Second, investigating in Sweden is reasonable due to the limited time frame and scope of a Bachelor thesis.

Another delimitation stems from the authors investigating the research question specifically by looking at Facebook Marketplace. It would have been preferred to investigate the question not delimiting ourselves to one platform. However, due to the limited timeframe of a BSc Thesis, this was deemed too difficult. Among all the available platforms to base our study on, Facebook Marketplace was deemed the most suitable, due to several reasons. First, Facebook Marketplace is one of the world's largest secondary marketplace platforms with thousands of transactions occurring every

day. Second, it possesses functions comparable to other C2C direct transaction platforms. Third, the multinational aspect of Facebook Marketplace implies that findings might have interest outside of the studied geographical scope, which is Sweden.* The choice of limiting the study to Facebook Marketplace (a direct transaction C2C platform) also means that we have chosen to exclude auction-based C2C platforms. Auction-based platforms are different to direct transaction platforms in many ways. For instance, they often include additional value-added services, such as buyer protection and authenticity certification, giving transactions another level of credibility by default.

An additional limitation arises from the authors choice of studying purchase intention. Behaviour would be the ultimate measure to study to fulfil the purpose of this thesis, however, measuring behaviour is not possible with the chosen method (see Section 3.1). Therefore, we will rely on the Theory of Planned Behaviour (TPB), which states that intention is an antecedent of behaviour (see Section 2.1). Relying on TPB poses another delimitation in terms of the predictive power of intention (see Section 2.1.3).

* An alternative platform to base our study on would have been Facebook Marketplace's main competitor Blocket.se (TT Nyhetsbyrå, 2017). However, since Blocket.se is not as well-known outside of Sweden, potential findings would not be of as much interest.

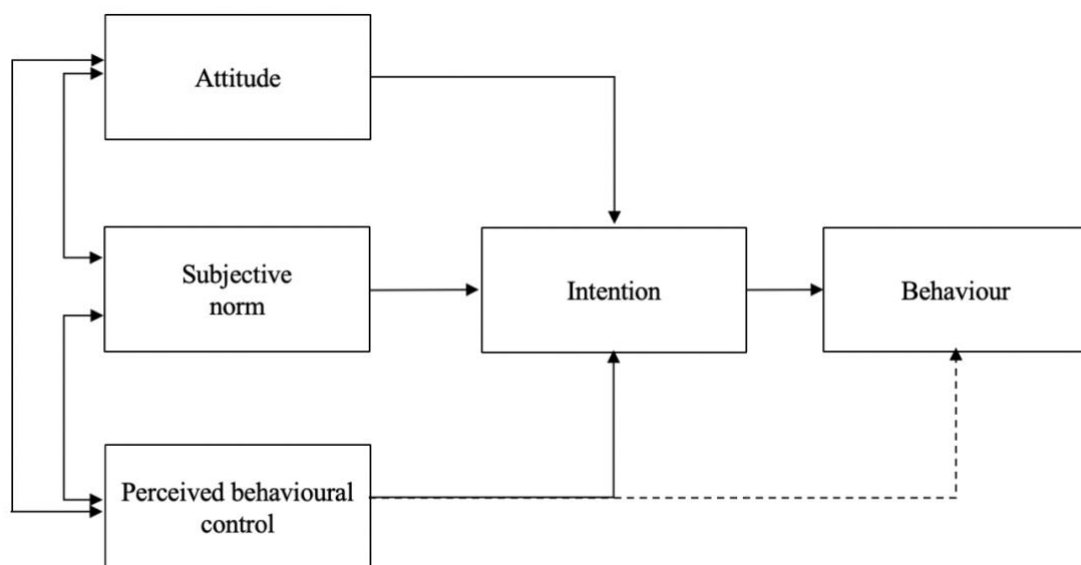
2. Literature Review

The purpose of this thesis is to study how one-sided and two-sided messaging affects consumer behaviour in a secondary marketplace setting. To get a deeper understanding of the subject, a literature review was made. The databases SSE Library and Scopus were used as the primary sources for literature, and we considered both previous research and other literature relevant to this thesis.

2.1 The Link Between Intention and Behaviour

2.1.1 The Theory of Planned Behaviour

TPB is originally an extension of the Theory of Reasoned Action (TRA). TPB is a framework that explains and predicts behaviour where a central variable is an individual's intention to perform a behaviour. Intention is in turn determined by attitude toward the behaviour, subjective norm, and perceived behavioural control (perceived behavioural control also directly influence behaviour)(Ajzen, 1991). The relation between each factor is shown in Figure 1. The determinants of intention will be excluded in this thesis, since it falls outside of the scope, as determined by its purpose. Instead, we will focus on the intention-behaviour link.



Note: Adapted from Ajzen (1991).

Figure 1. Illustration of the Theory of Planned Behaviour Model

The intention factor is a variable capturing the motivational factors affecting individuals' behaviour. It is a measure of people's willingness and effort to perform a behaviour. The higher the intention to perform a behaviour, the more likely the

behaviour is to happen, given that the behaviour is under volitional control i.e., the individual can perform the behaviour and is not subjected to availability and resource constraints (Ajzen, 1991). The correlation between intention and behaviour is moderately strong. In his meta-study, Sheeran (2002) found the mean correlation between intention and behaviour amounting to .53. Since this correlation exists, we can use purchase intention in our hypotheses development as a predictor of purchasing behaviour.

2.1.2 Distinction Between Intention and Expectation

There is an important distinction to be made between behavioural intention and behavioural expectation. Behavioural intention focuses on the decision people make to perform an action. The construct is taken from the model TRA and captures an individual's motivation, plan, and willingness to perform a behaviour. Behavioural expectations are, on the other hand, measures of an individual's likelihood to perform a behaviour and capture factors that could cause behaviour. Studies suggest behavioural expectations also should pose strong predictive validity (Sheeran, 2002). Thus, we could have chosen to measure expectations, however, since it is debatable whether expectations qualify in causal models of behaviour, we choose to study behavioural intention (purchase intention) instead, following the framework of TPB.

2.1.3 Criticism of the Theory of Planned Behaviour

It is worth noting that people do not always act on their intentions. Some studies have found the correlation between intention and behaviour to be below .53, pointing towards a possible a limitation of predictive validity (Ajzen, 2011). Furthermore, other factors such as beliefs and habits have been shown to also have a strong relationship with behaviour (Sniehotta et al., 2014).

2.2 Hypothesis Development

2.2.1 Two-Sided Messaging vs. One-Sided Messaging

Message sidedness is founded in the persuasion literature. Presenting drawbacks or flaws in a two-sided message to persuade consumers can seem to be counterintuitive. However, in certain situations, presenting a message with both positive and negative information has proven to be more effective than only presenting positive information. Application of two-sided messaging seems to be particularly advisable in cases where consumers already hold negative beliefs about a product or brand, and in cases where enhancing credibility is especially important (Eisend, 2006).

Previous findings on two-sided messaging and its connection to purchase intention in advertising studies have been ambiguous and it indicates a complex relationship

between these variables (ibid.). Nevertheless, Rucker et al. (2008) recently showed a positive relationship between two-sided messaging and purchase intention.* Individuals forming a more positive attitude from a two-sided message were more likely to report favourable intentions to perform a behaviour, i.e., receiving a two-sided message resulted in a greater purchase intention (Rucker et al. 2008). Message sidedness and purchase intention have also been studied in relation to different mediators and moderators. Self-confidence, credibility, and scepticism are three variables, among others, which have been shown to have a significant impact on the relationship between two-sidedness and purchase intention (Hernandez et al., 2022; Huertas & Hanna, 2020)

Even though previous findings find two-sided messaging's effect on purchase intention ambiguous, recent studies have found two-sided messaging having a positive effect on purchase intention in a B2C context. Thus, we expect two-sided messaging to also increase consumers' purchase intention in a C2C context and hypothesize the following:

H1: The use of two-sided messaging produces a higher level of purchase intention compared to the use of one-sided positive messaging.

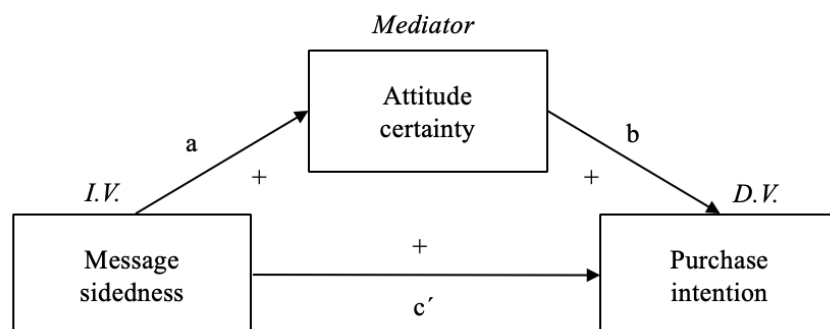
2.2.2 Attitude Certainty

Attitude certainty is defined as a subjective feeling of conviction or validity in one's attitude and/or the extent to which an individual believes their attitude is correct (Rucker & Petty 2004). As such, it is a secondary cognition (i.e., "How certain am I of my attitude?") about a primary cognition (i.e., "My attitude towards this offering is positive/negative"). Attitude certainty is stronger when the attitude is based on more trustworthy information (Berger, 1992). Additionally, an individual's belief about *how* they or others reached their attitude influences the extent to which they feel attitude certainty (Rucker et al., 2008). In a B2C context, two-sided messaging has been reported to increase attitude certainty due to individuals perceiving their attitude is based on greater knowledge, i.e., an individual perceives there is little information (e.g., negative aspects of an offering) missing (Rucker et al., 2008). Other studies on attitude certainty have also highlighted the importance of information completeness (Rucker et al., 2014). Nevertheless, one-sided messaging has also been reported to increase attitude certainty, presumably because ambivalent attitudes create more doubt than univalent attitudes (Glasman & Albarracín, 2006). Additionally, research has found consumers generally expend little cognitive effort when presented with advertisements. Only when people have the chance to think about it, the effect on attitude certainty should occur (Pfeiffer et al., 2019).

* In their study, Rucker et al. conducted 5 experiments, all testing different aspects of message framing. Experiment 1-4 highlighted the usage of two-sided messaging leading to increased attitude certainty, and Experiment 5 showed that attitudes held with more certainty are more likely to influence behaviour. The study can be criticized for relatively small and homogenous samples used in the experiments.

Attitude certainty in its turn has been found to influence intention and behaviour. When confidence in an attitude is high, it is more likely to direct intention and behaviour, and vice versa. Exactly how confidence operates in the cognitive process by which attitudes guide intention is not fully explored. However, it is suggested that for a previously formed attitude to guide a subsequent intention, the attitude must be accepted or acknowledged as a piece of information upon which a decision can be based. Certainty increases the likelihood of this acceptance to occur. Recognizing a lack of confidence might make the individual choose to search for more information before forming an intention, given sufficient motivation and opportunity (Berger, 1992; Briñol & Petty, 2021; Glasman & Albarracín, 2006). Given this prior research and that purchase intention is one type of intention, we believe two-sided messaging, also in a C2C context, leads to increased attitude certainty which in turn leads to increased consumer purchase intention. Thus, attitude certainty should act as a mediator (see Figure 2 for a conceptual model). Hence, we hypothesize:

H2: The relationship between message sidedness and purchase intention is mediated by attitude certainty.



Note: $a \times b$ = Indirect effect, c' = Direct effect.

Figure 2. Conceptual model of H2

2.2.3 Subjective Knowledge

The amount of knowledge people have in their working memory about an alternative or a subject is called 'objective knowledge'. How much people think they know about an alternative is referred to as 'subjective knowledge' (Berger et al., 1994). While objective knowledge and subjective knowledge are related, the two types of knowledge are critically different (Wallace et al., 2019). Research indicates that subjective knowledge is highly related to attitude certainty, more so than objective knowledge. Judgements based on more perceived knowledge are made with greater certainty (Berger et al., 1994) and, as previously mentioned (see section 2.2.2), attitudes held

with a higher level of certainty should be better predictors of intentions and/or behaviour, compared to those held with low certainty.

If two-sided messaging influences consumers' attitude certainty via enhancing consumers' general perception of their attitude being based on greater knowledge (see section 2.2.2), then effects on purchase intention should be more likely to be observed amongst people who do not already perceive themselves to have much knowledge. Conversely, for people already possessing much subject knowledge, two-sided messaging should not be as effective. Rucker et al. (2008) conducted an experiment where they tested perceived category knowledge and message framing as independent variables, and attitude certainty as the dependent variable, to examine perceived category knowledge as a potential moderator. They reported that the effect between message framing and attitude certainty was qualified by consumers' perceptions of their knowledge. We add to this experiment, and test subjective knowledge as a moderator between message sidedness and purchase intention in a C2C context (see Figure 3 for a conceptual model), based on that attitude certainty should behave as a precursor to purchase intention. Hence, we hypothesize:

H3: Subjective knowledge plays a moderating role on the relationship between message sidedness and purchase intention, so that the effect of two-sidedness will be stronger for those reporting low subjective knowledge compared to those reporting high subjective knowledge.

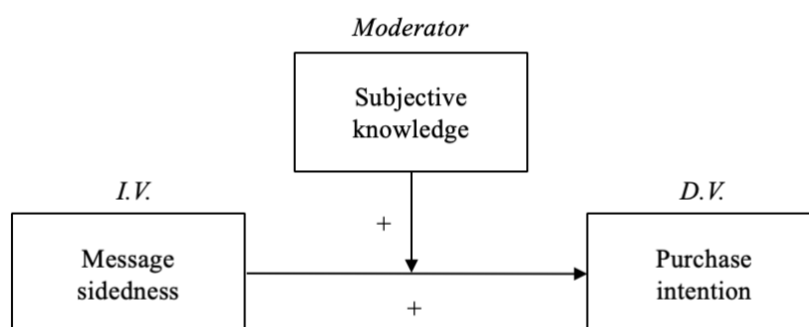


Figure 3. Conceptual model of H3

2.2.4 Purchase Decision Involvement

Zaichkowsky (1985) defined involvement as “a person’s perceived relevance of an object based on inherent needs, values and interests” (p. 342). Mittal (1989) defined Purchase Decision Involvement (PDI) as “the extent of interest and concern that a consumer brings to bear upon a purchase-decision task” (p.150). PDI concerns a consumer’s view of what the right or wrong choice of the product would mean to them,

and consequently whether they would be indifferent as to which of the available alternatives is bought. Mittal also distinguished between product involvement and PDI as two different constructs. On the one hand, if the object relevance is the product itself, it can be classified as product involvement. On the other hand, if the object of relevance is the purchase decision task, it should be classified as PDI. “In any case, a product class can be important to a consumer, but he or she may be indifferent in the choice of a brand, thus implying low-purchase-decision involvement.” (Mittal, 1989).

The level of PDI affects consumer behaviour (Novak & Hoffman, 2000). For instance, when PDI is high, a consumer would seek out product information, indulge in information processing and carefully compare different options (Sang et al., 2018). Thus, if a high score on PDI makes a consumer concerned as to which alternative of the product is bought, then the effects of two-sidedness should be stronger for those with high PDI compared to those with low PDI. In other words, consumers with low PDI should be less likely to care about seeking out and indulging in information compared to consumers with high PDI, hence the effects of two-sided information in the form of a feeling of more complete knowledge will matter less to them. Thus, we believe PDI will act as a moderator between message sidedness and purchase intention (see Figure 4 for a conceptual model). Accordingly, we hypothesize:

H4: Purchase decision involvement plays a moderating role on the relationship between message sidedness and purchase intention, so that the effect of two-sidedness will be stronger for those with high decision involvement compared to those with low decision involvement.

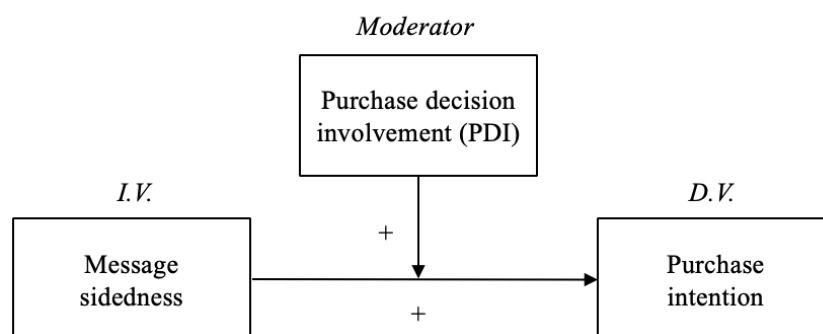


Figure 4. Conceptual model of H4

2.2.5 Message Credibility

An additional interesting aspect to look at when it comes to two-sided messaging is the effect it has on message credibility. Message credibility is an individual’s judgment of the veracity of the content of communication (Appelman & Sundar, 2016). Past

research has consistently shown that two-sided messaging increases advertisement credibility (Bohner et al., 2003; Semaan et al., 2018) and strengthens perceptions of the advertised brand/product possessing the positively claimed attributes (Golden & Alpert, 1987; Hunt & Kernan, 1984). Recent studies have found evidence for these effects also holding for newer types of advertising such as social media ads, native ads, and digital influencer advertising, as well as outside of the advertising field (Hernandez et al., 2022). To the greatest of our knowledge, recent studies have not considered advertising in C2C contexts. Thus, it is an interesting additional aspect to investigate and include in our analysis.

To explain the positive effects of two-sided messaging on credibility, attribution theory has frequently been used. Eisend (2007) reported that attribution theory-based models have a superior fit to empirical data in this context. Attribution theory sets forth that an event or stimulus acquires meaning from attribution to its origin, which is thought to be derived either from intrinsic, dispositional causes, or from extrinsic, situational causes (Ginder et al., 2021). In the message sidedness context, a two-sided message could be thought to be derived from source credibility, which in turn is derived from the actual advertiser (Eisend, 2007). Attribution theory also posits that if more than one possible cause is present, the role of a given cause in producing a given effect is discounted (Kelley, 1973). In the context of advertising, product claims can be either caused by the actual characteristics of the product, or the seller's motive to earn revenue. Consequently, attribution theory holds that if an advertisement is two-sided, source credibility is less discounted by the decreased possibility of the seller's sole motive being to sell the product. Hence, when the communicator acknowledges a weakness, the message is perceived as more credible (Eisend, 2006; Eisend, 2010). We expect this to be applicable also within a C2C context and thus formulate the following hypothesis:

H5: The use of two-sided messaging produces a higher level of message credibility compared to the use of one-sided positive messaging.
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3. Methodology

3.1 Scientific Approach & Research Design

To fulfil the purpose and investigate the relationship between one-sided and two-sided messaging and consumer behaviour, the authors used a quantitative scientific approach, implying an objective ontological perspective and a positivist epistemological position. Accordingly, a deductive approach was used as the theories and models chosen formed the foundation for the hypotheses (Bell et al., 2019). The choice of method was influenced by previous studies in the field of message sidedness where a quantitative approach has previously been used e.g., (Rucker et al., 2008). Also, quantitative research is the most common approach when investigating behaviour (Bell et al., 2019). It makes it possible to measure and examine differences between groups and look at mediators and moderators. A qualitative approach would have made it difficult to determine mediating and moderating effects.

An experimental method was believed to be suitable. It was motivated by the aim of testing the difference between the subject groups, the ability of random allocation of participants, the ability to look at causal relationships, and the use of experiments in previous studies. The use of random allocation is a central part of experimental design. It is part of being able to generalize findings outside the sample and it controls for differences between subject groups (Söderlund, 2010). An online self-completion questionnaire* was used and deemed to be suitable as the online tool Qualtrics allowed for randomization of the manipulation used in the experiment. The choice to use a self-completion questionnaire was further motivated by the cheapness, broad collection of data and convenience for the respondents (Bell et al., 2019).

3.1.1 Alternative Methods

The use of self-completion questionnaires presents some drawbacks e.g., insufficiency to collect additional data and provide nuanced data (Bell et al., 2019). Thus, it is important to acknowledge alternative methods which could have been used instead, one being to post a real listing on Facebook Marketplace to conduct the experiment. In that setting, data would have been collected based on the number of views, real contacts, and further questions to those proceeding to take contact. This approach, however, would violate the GDPR terms of transparency as the participants would not have given their consent before participating in the experiment. Another alternative method could have been to conduct a content analysis of big data (e.g., text from product descriptions, info about sold/unsold) from Facebook Marketplace. Since we did not have access to any data from Facebook, this method was deemed too difficult.

* Also referred to as survey and they will be used interchangeably

3.2 Pilot Study

Before the construction of the main survey, a pilot study was sent out in the form of a survey to 24 respondents on the 20th of October 2022. This was done as a pilot study is important in all forms of studies; however, crucial before self-completion questionnaires (Bell et al., 2019). The pilot study was conducted to get better insights into what a two-sided message is, how the respondents perceive different texts regarding message sidedness and lastly which product image to use. Respondents were asked to answer as honestly as possible to ensure the quality of our main study. In addition to the pilot survey, 4 participants were asked to comment out loud and were able to give direct feedback on the questions used. See Appendix 1 for product images tested in the pilot study.

After the pilot study, we got confirmed what picture to use in our experiment based on respondents' attitudes towards each of the three chosen pictures. We wanted a picture in our main study that did not raise strong attitudes of dislike or content, thus we chose the picture rated on average in the middle on a scale of 1-7. Furthermore, we got confirmation of how the respondents perceived the product descriptions and subsequently elements of the product descriptions tested was included in our main study. Lastly, it was suggested by some respondents that the manipulation check question should have a yes/no answer and that the number of items on the questions should be reduced. This was not included in the main study due to the advantages of using a pre-existing measure, however, because of the length of the questions, we expected a higher dropout rate in our main survey since it is a function of the survey length (Hoerger, 2010).

3.3 Main Study

3.3.1 Questionnaire

The survey was constructed in Qualtrics as an anonymous survey with a total of 14 questions distributed into nine different blocks with different structures, see Figure 5 in Section 3.3.3 for the survey flow. The survey and the questions were stated in Swedish to reduce problems caused by limited literacy since the thesis is delimited to Sweden. For the complete survey in Swedish see Appendix 2.

The first block of the survey was an introduction informing the respondents of the purpose and estimated time of the survey. Contact information to the authors was also included along with the promise of a 2 SEK donation to UNHCR and their work in Ukraine for each completed response. After the short introduction, the respondents were informed about the GDPR terms and how the personal data would be handled. The respondents were then asked to give their consent by ticking a box stating "Yes, I have read the information above and agree to participate in this study". To continue the

survey the respondents had to consent to the terms and if they did not and ticked the box stating “No, I do not consent to participate in the study”, they were sent to the end of the survey to avoid collecting any further data.

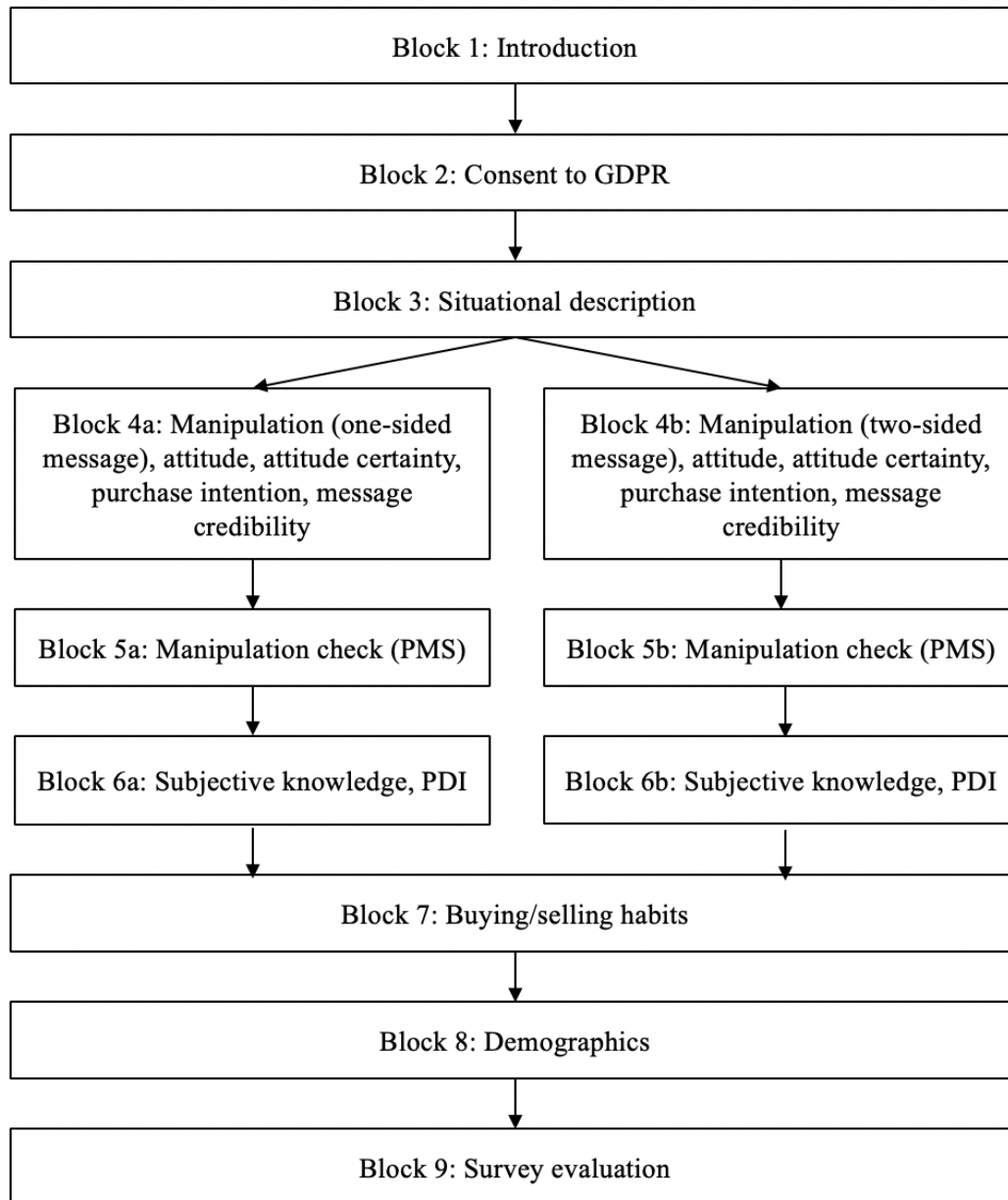
After the introduction and GDPR, respondents were prompted with a situational description and subsequently randomly divided into either the one-sided message group or the two-sided message group using Qualtrics randomization, see section 3.3.2 for the stimulus development. Depending on whether the respondent accessed the survey on a computer or a phone the shown stimuli was altered to fit the used device. The respondents were then asked to look at their respective stimuli, a picture showing a fictive Facebook Marketplace listing of a coffee table. They were then asked to answer a set of questions and a manipulation check followed to make sure the respondents paid attention to the information in the listing. Following the respondents entered block 6, thereafter block 7 and 8, and lastly block 9, see Figure 5 for the variables measured in each of these blocks.

In the survey quality block, an instructional manipulation check was included in the form of an instructed response item where the respondents were asked: “Tick the box strongly disagree”, this attention check was inspired by Gummer et al. (2018). The attention check was included to make sure that the respondents were paying attention to the survey. By removing the answers failing to answer the attention check correctly, the data can be argued to increase in statistical power and reliability (ibid.)

3.3.2 Stimuli Development

The stimuli used in the experimental groups were created in Adobe Photoshop. To get the most realistic stimulus possible, we took screenshots from a self-created listing at Facebook Marketplace (one for the mobile version, one for the computer version) and imported the screenshots to Photoshop. Then, we inserted the product image as determined by the pilot study (an image of a coffee table) and composed the product description based on the pilot study insights. Before the creation of the pilot study, we researched what product categories were most sold second-hand online, resulting in us choosing to only test images of furniture, as furniture is one of the most sold objects second-hand and is a generic product category.

3.3.3 Survey Flow



Note: The difference between block a and b is the manipulation presented.

Figure 5. Illustration of survey flow

3.4 Variables

Below follows a presentation of the different variables used in this study and the scales used to measure them. Questions were asked on a 7-point Likert scale with a middle option available which enabled the respondents to answer neutrally. The questions with

multiple items were subsequently made into indexes and assessed by Cronbach's Alpha to ensure internal reliability, see Section 3.6.1.

3.4.1 Dependent Variables

Purchase Intention

Purchase intention was measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) using three statements: "Definitely intend to buy this", "Very high purchase interest" and "Will possibly buy this". This measure was inspired by a previous study on Purchase intention scales where it was measured by five statements on a 7-point Likert scale ($\alpha = .97$) (Spears & Singh, 2004).

Previous research has shown theoretical and empirical problems with purchase intention scales, as it provides biased measures and low predictive power. Purchase intention scales perform well but the measure of purchase expectation has proven to perform better (Wright & Macrae, 2007). Despite the positive evidence for the use of purchase expectation we deem purchase intention to be suitable because of the purpose to look at behaviour in this thesis.

Message Credibility

Message credibility was measured using a pre-existing scale ($\alpha = .87$), and the respondents were asked the question "How well do the following adjectives describe the product descriptions in the ad?" (Appelman & Sundar, 2016). The question was altered to fit this study and the adjectives were: accurate, authentic, and trustworthy. The variable was measured using a 7-point Likert scale ranging from 1 (very poorly) and 7 (very well).

3.4.2 Independent, Mediating and Moderating Variables

Message Sidedness (Experimental Variable)

This variable takes the form of either 0 or 1 depending on which experimental group the respondent was part of (0 = one-sided message subject group, 1 = two-sided message subject group), i.e., it was not measured using a question. The variable was used as an independent variable in the mediation and moderation analyses.

Perceived Message Sidedness (Manipulation Check)

Perceived Message Sidedness (PMS) was measured using a manipulation check in block 5. Worth noting is that respondents could not go back to check the manipulation when answering this question. The manipulation check was inspired by previous studies ($\alpha = .78$) and the respondents were asked to answer the following statements: "The product description presented only positive attributes", "The product description presented only negative attributes", and "The product description presented both

positive and negative attributes”. The variable was measured using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) (Huertas & Hanna, 2020; Rucker et al., 2008). The variable was used as an independent variable in the mediation and moderation analyses.

Attitude Certainty

The mediating variable Attitude certainty was measured on a 7-point Likert scale ranging from 1 (not at all) to 7 (extremely) and the respondents were asked to answer the following questions: “How certain are you of your attitude towards this coffee table?” and “How convinced are you that your attitude toward this coffee table is correct?”. The measure was inspired by previous research ($\alpha = .73$), but adapted to fit this study, the word coffee table was used instead of the original word product (Rucker et al., 2008).

Subjective Knowledge

The moderating variable Subjective knowledge was measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) inspired by Flynn & Goldsmiths’ (1999) pre-existing scale ($\alpha = .92$). The respondents were asked to answer the following statements: “I know pretty much about furniture”, “Among my friends I am one of the experts on furniture”, and “I do not feel very knowledgeable about furniture”. The statements were altered to fit this study, the word “fashion” in the original scale was replaced with “furniture” and the number of statements was reduced to secure convenience for the respondents.

Purchase Decision Involvement (PDI)

The moderating variable PDI was measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The measure was inspired by a pre-existing scale ($\alpha = .79$) (Bearden & Netemeyer, 1999) but adapted to fit this study. The respondents were asked the question “What is your thought process before a purchase of a product similar to the one in the ad?” and asked to respond to the following statements: “I care a lot about which one I buy”, “The alternatives available on the market is very different”, and “It is very important to make the right decision upon a purchase”.

3.4.3 Other Variables

Attitude

Attitude was measured using a pre-existing binominal scale ($\alpha = .91$), as binomial scales are common when measuring attitudes (Söderlund, 2010). The respondents were asked about their attitude towards the coffee table with the following three statements: “Very bad/Very good”, “Don’t like the coffee table at all/Really like the coffee table”, and

“Very negative impression/Very positive impression”. The respondents were asked to rank their attitude on a 7-point scale where a negative attitude was anchored at 1 and a positive attitude was anchored at 7 (Rucker et al., 2008).

Contact Intention

Contact intention was measured using the same 7-point Likert scale as for Purchase intention but altered to fit the intention to contact the seller. The three statements used were: “Definitely intend to contact the seller”, “Very high interest in contacting the seller” and “Will possibly contact the seller”. This variable was included out of interest.

Buying and Selling Habits

The respondents were asked whether they had bought or sold anything on Facebook Marketplace. If they answered “yes” they were asked to estimate how many times they had done it during the last year. This variable was included to analyse possible differences between categories.

Demographics

Demographics in this study were limited to the variables age and gender to not collect any excessive personal data of the respondents. The demographic variables were used to analyse differences between the categories the respondents belonged to.

3.5 Data Collection

3.5.1 Data Collection

The online self-completion survey was distributed between the 28th of October and the 11th of November 2022 and 116 valid responses were collected. The survey was distributed through an anonymous link in different Facebook buying and selling groups (see Appendix 3) which the authors joined. Before distributing the survey, we researched buying and selling groups across Sweden and mapped out the groups to make sure individuals from across Sweden would be represented. Before publishing we asked for permission from the administrators. Additionally, the survey was distributed in our online channels (Facebook) and networks which include the authors’ family, friends, and classmates. The sample should be treated as a convenience sample due to its accessibility (Bell et al., 2019). However, convenience sampling is frequently used in the experimental field when testing universally expressed theory, i.e., its validity is not specified in relation to any sample. In these instances, if the theory is supported, findings can be generalised to the population despite the use of a convenience sample (Söderlund, 2010).

3.5.2 Dropout Analysis

The total number of respondents was 226. However, for the answers to be considered valid, the respondents had to agree to the GDPR terms, conduct 100% of the survey, be above 18 years old and answer the attention check correctly. Out of the 226 respondents 46 only completed 3% of the survey and one did not consent to GDPR and was excluded. Of the remaining 179 respondents, 38 did not complete the survey, i.e., progress < 100%. Six respondents were under the age of 18 and 19 respondents failed to answer the attention check question correctly, thus they were excluded from the sample. Ultimately, 116 responses were correctly collected and used in the final dataset. See Figure 6 for a dropout illustration.

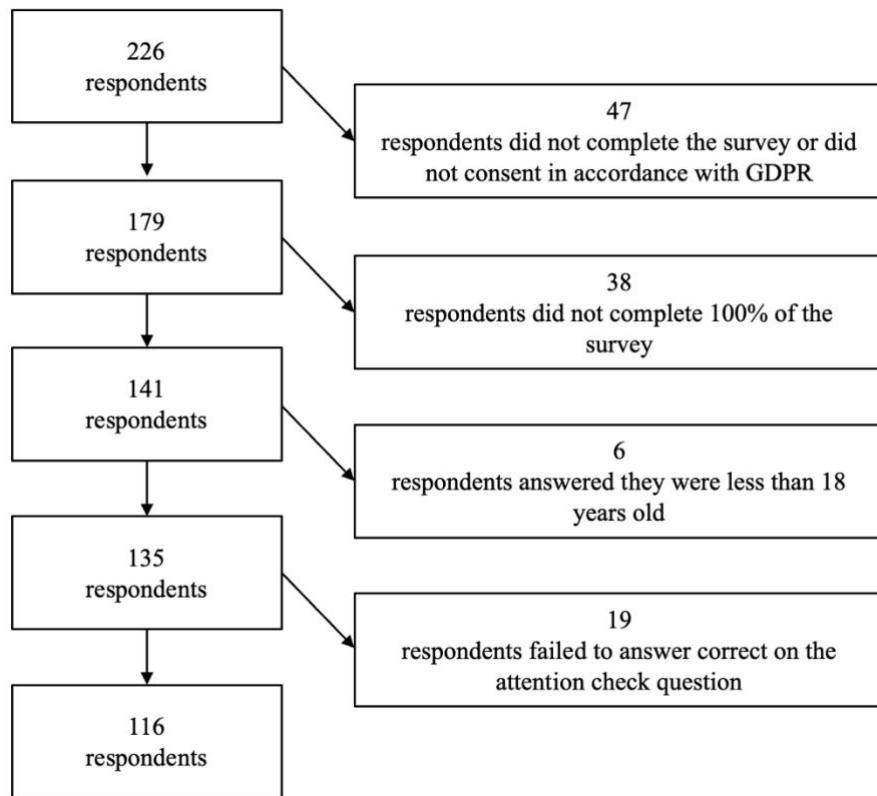


Figure 6. Illustration of questionnaire drop-out

3.6 Reliability and Validity

3.6.1 Reliability

Reliability measures to what extent we get the same results from several measures i.e., the consistency of a measure of a concept (Bell et al., 2019). To assess the reliability, we proceeded to use the method of internal reliability for the multi-item variables. To assess internal reliability on the multi-item variables Cronbach's alpha, the most

common measure, was used. Cronbach's alpha takes on a value between 0 (no internal reliability) and 1 (perfect internal reliability) and the rule of thumb states that values above .7 are considered efficient (Bell et al., 2019).

Since the multi-item measures occurred after the randomized division between groups a Cronbach's alpha analysis was made for both subject groups: one-sided message and two-sided message. The variables with multi-item measures are shown in Table 1. The Cronbach's alpha for all variables except for PDI in the two-sided group exceeded the set threshold of .7. The measures for the variables were thus subsequently indexed.

Table 1. Cronbach's alpha for multi-item measures

Variable	Cronbach's α		Items
	One-sided group n = 56	Two-sided group n = 60	
Attitude	.857	.910	3
Contact intention	.902	.969	3
Purchase intention	.917	.974	3
Message credibility	.867	.907	3
Subjective Knowledge	.858	.896	3
PDI	.799	.413*	3
PMS	.752	.773	3

Note: *Does not reach the accepted threshold set in this thesis. Attempts to improve the alpha by removing items were unsuccessful. One reason for the low alpha value could be us as authors adapting the pre-existing scale created by Bearden and Netemeyer (1999) insufficiently. Nevertheless, the combined alpha for both subject groups exceeded the set threshold. Thus, the variable is included for further analysis but will be treated with caution.

The consistency of the measure of Attitude certainty was assessed using Pearson's product-moment correlation test, where +1 equals a positive linear relationship, 0 no relationship and -1 a negative linear relationship (Newbold et al., 2020). For Attitude certainty in the group exposed to the one-sided message the correlation coefficient was .70 and, in the group, exposed to the two-sided message the correlation coefficient was .69. Thus, the alternative hypothesis is empirically supported, and the correlation is not equal to zero i.e., the two measures used for Attitude certainty successfully correlate with each other in both groups. The measure was thus subsequently indexed.

3.6.2 Validity

Validity refers to whether measures of a concept measure that concept i.e., to what extent we measure what we intend to measure (Bell et al., 2019). To increase the validity of this thesis the authors adopted a deductive approach, where we formed our hypothesis based on prior research and constructed our survey based on pre-used measures. The pre-used measures were modified to fit this study and translated into Swedish. We acknowledge how the validity of this study becomes lower when modifying pre-used measures but the risk of questions being misinterpreted if stated in

English, was greater and would lower the validity even more. Furthermore, as the aim of this thesis is to study consumer purchase behaviour, the measure of one's intention was derived from the TPB as a suitable indicator of behaviour. From theory, we can conclude that intention is the motivation to plan a behaviour, thus the measure used for purchase intention reflected that definition. Moreover, we conducted a pre-study to increase the validity of the study and to make sure the experiment would capture what it was intended to capture.

It can be argued that the validity becomes lower since the data was collected using convenience sampling. However, since the theory behind our study is universally expressed, it should not be an issue. Furthermore, the study is an experiment, with random allocation, and thus validity is increased since the use of random allocation is a useful tool to test for causal effects. Another thing to consider is the unnaturalness of responding to a survey. To mitigate this phenomenon, the manipulation used in this study was made to look exactly like a real Facebook Marketplace listing and alternated to either look exactly like a phone or computer post, to make it more authentic and truer to real life. This was done to increase the validity of this study by trying to capture a real-life scenario.

3.6.3 Survey Quality

The final block of the survey contained questions on the survey quality to get a better understanding of how the survey was perceived by the respondents. This step was included to further evaluate the validity. The respondents were asked to evaluate the survey based on four questions on a 5-point Likert scale inspired by a previous study (Andersson, P. & Almqvist, 2022). Of those who finished the survey and met all the additional criteria for the data sample, 53% thought the questions were clearly formulated. Furthermore, 70% thought the response alternatives were clearly formulated, 47% found the study to be meaningful and 80% thought that the questions did not try to influence the participant's answer in any direction, see Appendix 4.

3.7 Statistical Methods

The data collected was exported from Qualtrics into the statistics program R-Studio where the final analysis was made. Before the analysis of the data, a dropout analysis was conducted along with the reversing of negatively stated items. Initially, descriptive statistics were summarized along with the respondents buying and selling habits. Thereafter, Cronbach's alpha and Pearson product-moment correlation test were calculated on the variables for the internal reliability analysis.

3.7.1 Method for Testing Differences in Means

To test the potential differences in means between the dependent variables Purchase intention and Message credibility a two-sample Welch's *t*-test was conducted. As the sample size and the variance of each group are not equal Welch's *t*-test was used instead of the standard Students *t*-test. It can be argued that experimental manipulation can increase variance between subject groups (Delacre et al., 2017) and thus we cannot assume that the variances are equal. Finally, because the sample size is > 30 for each subject group we can rely on the Central Limit Theorem, concluding the data is approximately normally distributed (Newbold et al., 2020). Thus, the use of Welch's *t*-test is appropriate.

3.7.2 Method for Testing Mediating Effects

To test the potential mediating effect of Attitude certainty between Message sidedness and Purchase intention, two mediation analyses in the form of a nonparametric bootstrapping as suggested by Preacher and Hayes (2008) were used. The difference between the mediation analysis lies in the independent variable used. In the first analysis, Message sidedness was used as the independent variable (see equations 1a and 2a). In the second, PMS was used as the independent variable (see equations 1b and 2b). We chose to include the approach of using the manipulation check as the independent variable because of two reasons. First, it complements the analysis with an ability to see the difference in effects between perceived and actual message sidedness, which is of relevance since arguably it is not the actual message sidedness, but the PMS, that is the most important. Second, this approach has become increasingly common concerning experimental data; Söderlund (2016) is a recent example.

$$Attitude\ certainty_i = \beta_0 + \beta_1 Message\ sidedness_i + \epsilon_i \quad (1a)$$

$$Purchase\ intention_i = \beta_0 + \beta_1 Message\ sidedness_i + \beta_2 Attitude\ certainty_i + \epsilon_i \quad (2a)$$

$$Attitude\ certainty_i = \beta_0 + \beta_1 PMS_i + \epsilon_i \quad (1b)$$

$$Purchase\ intention_i = \beta_0 + \beta_1 PMS_i + \beta_2 Attitude\ certainty_i + \epsilon_i \quad (2b)$$

The bootstrap analyses were conducted with 1000 stimulations and result in two outputs, each showing the average casual mediating effect (ACME), average direct effect (ADE), and total effect. The *p*-value for each of the effects was used to determine if the hypothesized mediator is significant.

Worth mentioning is some critique against this type of testing for mediating effects. Fiedler, et. al (2018), for instance, reported on how the mediation model $X \rightarrow M \rightarrow Y$ is only one, and often not even the most plausible, of 12 different causal models. Furthermore, they highlighted the problematic aspects of not considering alternative mediator candidates.

3.7.3 Method for Testing Moderating Effects

To test the potential moderating effects and to see if the hypothesized moderators (Subjective knowledge and PDI) are significant predictors for purchase intention two moderation analyses using a multiple linear regression approach were made. The difference between the analyses was, again, the independent variable used. In the first analysis, Message sidedness was used as the independent variable for both potential moderators (see equations 3a and 4a). In the second, PMS was used as the independent variable for both potential moderators (see equations 3b and 4b). We chose to include the analysis using the manipulation check as the independent variable for the same reasons it was used in the mediator analysis.

$$\text{Purchase intention}_i = \beta_0 + \beta_1 \text{Message sidedness}_i + \beta_2 \text{Subjective knowledge}_i + \beta_3 \text{Message sidedness}_i \times \text{Subjective knowledge}_i + \epsilon_i \quad (3a)$$

$$\text{Purchase intention}_i = \beta_0 + \beta_1 \text{Message sidedness}_i + \beta_2 \text{PDI}_i + \beta_3 \text{Message sidedness}_i \times \text{PDI}_i + \epsilon_i \quad (4a)$$

$$\text{Purchase intention}_i = \beta_0 + \beta_1 \text{PMS}_i + \beta_2 \text{Subjective knowledge}_i + \beta_3 \text{PMS}_i \times \text{Subjective knowledge}_i + \epsilon_i \quad (3b)$$

$$\text{Purchase intention}_i = \beta_0 + \beta_1 \text{PMS}_i + \beta_2 \text{PDI}_i + \beta_3 \text{PMS}_i \times \text{PDI}_i + \epsilon_i \quad (4b)$$

The independent and the moderating variables were mean centred before the regression due to the moderating variable being continuous. Mean-centring results in the data for the moderating variable being divided into three different groups (-1sd, mean, +1sd), giving it the characteristics of an indicator moderating variable. To find out if the hypothesized moderators are significant control of the p -value for the interaction terms was conducted.

3.7.4 Method for Hypotheses Testing

When testing for empirical support for our hypotheses the following are the assumptions for the null hypotheses, alternative hypotheses, and decision rules (See Table 2). For H1 and H5 the null hypotheses state that the mean for the dependent variable is equal between subject groups. For H2, the null hypothesis states that the beta for mediating variable is equal to zero and for H3 and H4 the null hypotheses state that the beta for the moderating variable is equal to zero. The decision rule level of significance ($p < .05$) was chosen as it is a suitable acceptance level (Newbold et al., 2020).

Table 2. Overview of null hypotheses, alternative hypotheses, and decision rules

Hypothesis	Null hypothesis	Alternative hypothesis	Decision rule
H1	$H_0: \mu_1 = \mu_2^a$	$H_1: \mu_1 < \mu_2^a$	Reject H_0 if $p < .05$
H2	$H_0: \beta_2 = 0^b$	$H_2: \beta_2 \neq 0^b$	Reject H_0 if $p < .05$
H3	$H_0: \beta_3 = 0^c$	$H_3: \beta_3 \neq 0^c$	Reject H_0 if $p < .05$
H4	$H_0: \beta_3 = 0^d$	$H_4: \beta_3 \neq 0^d$	Reject H_0 if $p < .05$
H5	$H_0: \mu_1 = \mu_2^e$	$H_5: \mu_1 < \mu_2^e$	Reject H_0 if $p < .05$

Note: ^a Referring to the mean difference in Purchase intention between the subject groups. ^b In equations 2a and 2b. ^c In equations 3a and 3b. ^d In equations 4a and 4b. ^e Referring to the mean difference in Message credibility between the subject groups.

3.7.5 Method for Testing Data Accuracy

The data accuracy for equations 2a, 2b, 3a, 3b, 4a and 4b was determined by conducting three different tests related to the assumptions of the multiple linear regression model (Newbold et al., 2020) and by looking at the adjusted R^2 . The VIF test, with the decision rule of an acceptable level below 10, was used to decide if any signs of multicollinearity existed in the data. The Breusch-Pagan test was used to determine if the data showed problems with heteroscedasticity. A p -value $> 5\%$ in the Breusch-Pagan test means that one cannot reject the null that the errors are homoscedastic. Lastly, to assess the normality of the error terms a Jarque-Bera test was carried out. In the Jarque-Bera test, a p -value $> 5\%$ means that one cannot reject the null that the errors are normally distributed. See Appendix 5 for data accuracy for each model.

4. Results

The purpose of this thesis was to study how one-sided and two-sided messaging affects consumer behaviour in a secondary marketplace setting. To fulfil this purpose, we conducted several statistical analyses presented in this section.

4.1 Descriptive Statistics

Descriptive statistics based on the total sample of 116 reveal that 65 of the respondents identify as women, 51 identified as men and no respondents identified as other/non-binary (see Table 3). The respondent age span ranged from 18 to 63. The mean age in the sample was 31, the median 23, and the standard deviation 13.4. When it comes to the respondents purchasing and selling habits, 77.6% have purchased, and 73.3% have sold, on a direct transaction online secondary marketplace during their lifetime.

Table 3. Descriptive statistics revealing the sample demographics (n = 116)

Variables	Categories	Frequencies	Percentage (%)
Gender	Male	51	44.0
	Female	65	56.0
	Non-binary	0	0.0
	Other	0	0.0
Age	18-29	79	68.1
	30-45	11	9.5
	46-60	24	20.7
	> 60	2	1.7
Second-hand online transaction experience*	Have purchased	90	77.6
	Have sold	85	73.3

*Note: * Anytime during lifetime*

In terms of the recent year, the mean number of purchases was 3.7. The minimum number of purchases was 0 while the maximum was 70, revealing a large spread. The maximum number of sales during the recent year is 30. For an overview of the respondents' purchasing habits see Table 4.

Table 4. Descriptive statistics regarding the respondents' online second-hand purchasing and selling frequencies in the recent year

Variables	Categories	Frequencies	Percentage (%)
Purchases during recent year (n = 90)	0-4	55	61.1
	5-10	29	32.2
	11-16	2	2.2
	> 17	4	4.5
Sales during recent year (n = 85)	0-4	65	76.5
	5-10	17	20.0
	11-16	2	2.4
	> 17	1	1.1

4.2 Mean Differences Between Subject Groups

A Welch *t*-test was used to see if there was a significant mean difference between subject groups for the dependent variables, the mediating and moderating variables, and Contact intention, Attitude, and PMS. As seen in Table 5 there was a significant difference between the means of the groups for the variables Purchase intention, Message credibility and PMS, according to our hypothesis decision rule (p -value < 5%). For the other variables, there was no significant difference between the means of the groups. See Appendix 6 for boxplots showing the spread of the data.

Table 5. Results from *t*-test between subject groups

Respondent group	One-sided n = 56		Two-sided n = 60		<i>df</i> *	<i>p</i>	<i>t</i>	<i>d</i> **
	<i>M</i> ₁	<i>SD</i>	<i>M</i> ₂	<i>SD</i>				
Purchase intention ^a	2.59	1.43	3.43	1.69	113	.005	-2.89	0.53
Contact intention ^a	3.17	1.60	3.70	1.75	114	.086	-1.73	0.32
Message credibility ^a	4.42	1.33	5.22	1.28	113	.001	-3.30	0.61
Attitude certainty ^a	4.65	1.49	5.01	1.30	110	.174	-1.37	0.26
Subjective knowledge ^a	3.52	1.66	3.52	1.49	110	.981	0.02	-0.01
PDI ^a	5.58	1.15	5.53	0.84	100	.771	0.29	-0.05
Attitude ^b	4.32	1.15	4.61	0.84	110	.206	-1.27	0.24
PMS ^c	2.18	1.10	6.06	1.15	114	< .001	-18.58	3.45

Note: Significant *p*-values at 5% significance level are bolded. * Welch's *t*-test results in fractional degrees of freedom. ** Calculated using Cohen's *d*, discussed in section 4.3. ^a 1 being low intention/credibility/certainty/subjective knowledge/PDI, 7 being high intention/credibility/certainty/subjective knowledge/PDI. ^b 1 being negative attitude, 7 being positive attitude, used to control for differences in attitude extremity between the subject groups. ^c Measured using the manipulation check, 1 being message is one-sided, 7 being message is two-sided.

Other takeaways from the *t*-test are that Message credibility, PDI and Attitude certainty showed in general higher mean values. While Purchase intention shows a low mean value for both groups, it is worth noting that Contact intention shows a higher mean value for both groups respectively. Furthermore, the subject groups showed the same

mean value for Subjective knowledge ($M_{1,2} = 3.52$) and a close mean value for PDI and Attitude ($M_1 = 5.58$, $M_2 = 5.53$; $M_1 = 4.32$, $M_2 = 4.61$). The same variables also display a low t -value indicating that the groups are similar in Subjective knowledge, PDI and Attitude. The not significant difference in means for Attitude implies that the experimental manipulation did not change the attitude toward the product. Additionally, the manipulation check (PMS) showed a significant difference in means between the subject groups (p -value $< .05$). This implies that the manipulation check in our experiment worked and that the subject groups showed a significant difference in the perceived sidedness of the message. The standard deviations for all variables except PDI and Attitude (in the two-sided group) are > 1 , suggesting that respondents generally did not only choose the middle option on the scale but instead choose options with greater variation.

4.3 Correlation Analysis

To get an initial understanding of the relationship of the variables, and to determine if the use of linear regression models is appropriate, a Pearson's correlation test was conducted. The correlations between the variables were gathered in one matrix with two panels, one for each subject group (See Appendix 7). A non-significant negative correlation was found between Purchase intention and Attitude certainty, PDI and Subjective knowledge in the one-sided group, whereas in the two-sided group there was a non-significant positive correlation. Additionally, there was a non-significant correlation between PMS and Attitude certainty, PDI and Subjective knowledge in the one-sided group, whereas in the two-sided group PDI and Attitude certainty was positively significantly correlated with PMS. However, since the strength of the correlations (.45 and .33) are low, the correlations can be considered weak, however it should be considered when interpreting the results. Overall, this indicates that the majority of the variables are suitable to use in linear regressions.

Noteworthy is also that Contact intention and Purchase intention are strongly and significantly positively correlated in both subject groups, indicating that there is a strong relationship between these two types of intention in this context.

4.4 Null Hypotheses Analysis

4.4.1 H1 – Two-Sided Messaging’s Effect on Purchase Intention

As seen in Table 5 there was a significant difference in means in Purchase intention between the two groups ($M_1 = 2.59$, $M_2 = 3.43$) as $p = .005$. The spread of Purchase intention is depicted in Figure 7. The effect size is medium at 0.53 (Cohen, 1992).

Based on the decision rule, we reject the null hypothesis that the means are equal between the groups, meaning that **H1 is empirically supported**.

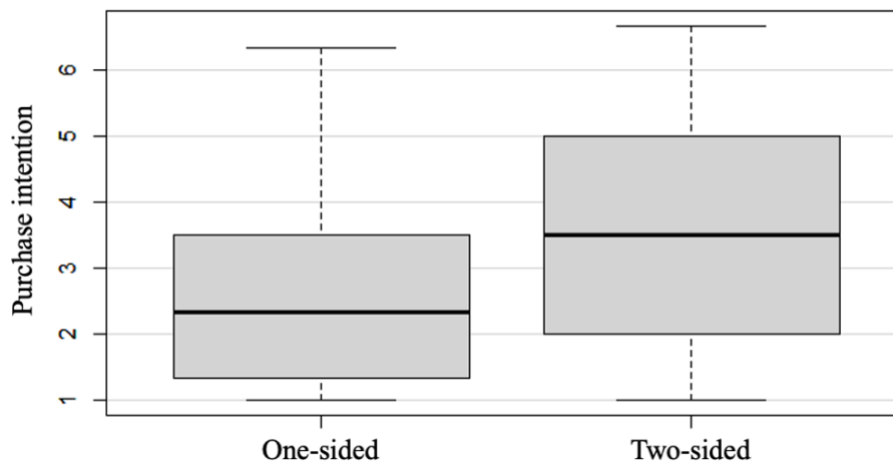


Figure 7. Boxplots showing the spread of Purchase intention in both subject groups

4.4.2 H2 – Attitude Certainty Mediation Analysis

Table 6 shows the results from our bootstrapping mediation analysis regarding the mediating effect of Attitude certainty on the relationship between Message sidedness and Purchase intention using Message sidedness as the independent variable. The ACME confidence interval includes 0 and has a p -value of .292, making the indirect effect not significant, following our decision rule. The ADE showed a significant effect with a p -value of .006 and a magnitude of 0.78. The total effect was significant with a low p -value ($p = .008$) and a magnitude of 0.84.

Table 6. Results from the casual mediation analysis using Message sidedness as the independent variable

	Coefficient (β)	LLCI*	ULCI*	p
ACME	0.06	-0.06	0.17	.292
ADE	0.78	0.19	1.36	.006
Total effect	0.84	0.24	1.41	.008

Note: Significant p -values at 5% significance level are bolded. * 95% CI.

Table 7 provides results from our bootstrapping mediation analysis regarding the mediating effect of Attitude certainty on the relationship between Message sidedness and Purchase intention using PMS as the independent variable. The confidence interval of ACME includes 0 and has a p -value of .251, making the indirect effect not significant according to our decision rule. The bootstrapping model also shows that the ADE has a magnitude of 0.23 and a p -value $< .05$, making the direct effect significant. Lastly, the total effect has a magnitude of 0.25 and a p -value $< .001$ making it significant.

Table 7. Results from the casual mediation analysis using PMS as the independent variable

	Coefficient (β)	LLCI*	ULCI*	p
ACME	0.02	-0.01	0.05	.251
ADE	0.23	0.10	0.35	$< .001$
Total effect	0.25	0.12	0.36	$< .001$

Note: Significant p -values at 5% significance level are bolded. * 95% CI.

As none of the mediation analyses shows a significant indirect effect, we fail to reject the null and fail to prove that attitude certainty is mediating the relationship between message sidedness and purchase intention. Thus, **H2 is not empirically supported.**

4.4.3 H3 – Subjective Knowledge Moderation Analysis

Table 8 shows the results from our moderation analysis regarding the moderation effect of Subjective knowledge on the relationship between Message sidedness and Purchase intention, using Message sidedness as the independent variable. The Message sidedness variable has a magnitude of 0.84 and a p -value below the accepted level, making it significant. Subjective knowledge variable has a magnitude of 0.07 with a p -value above the accepted level of 5%, making it not significant. The interaction term which determines the moderating effect has a magnitude of 0.18 and a p -value of .337, making it not significant, according to the decision rule.

Table 8. Results from the Subjective knowledge moderation analysis using Message sidedness as the independent variable

	Coefficient (β)	S.E.	t	p
(Intercept)	3.02	0.15	20.67	$< .001$
Message sidedness	0.84	0.29	2.87	.005
Subjective knowledge	0.07	0.10	0.74	.460
Interaction term*	0.18	0.19	0.96	.337

Note: Significant p -values at 5% significance level are bolded. * Message sidedness $\times$ Subjective knowledge

Table 9 provides results from our moderation analysis regarding the moderating effect of Subjective knowledge on the relationship between Message sidedness and Purchase intention, using PMS as the independent variable. The PMS and Subjective knowledge

variables have magnitudes of 0.24 and 0.06. The p -value for PMS is $< .001$ and below the set threshold while the p -value for Subjective knowledge is above the accepted level of 5%, making PMS significant and Subjective knowledge not significant. The interaction term has a magnitude of 0.02 and a p -value of .569, making it not significant, according to the decision rule.

Table 9. Results from the Subjective knowledge moderation analysis using PMS as the independent variable

	Coefficient (β)	S.E.	t	p
(Intercept)	3.02	0.14	21.15	$< .001$
PMS	0.24	0.06	3.80	$< .001$
Subjective knowledge	0.06	0.09	0.66	.511
Interaction term*	0.02	0.04	0.57	.569

Note: Significant p -values at 5% significance level are bolded. * PMS $\times$ Subjective knowledge

Since none of the moderation models shows a significant interaction term, we fail to reject the null that the β_3 is equal to zero and fail to prove that Subjective knowledge plays a moderating role on the relationship between Message sidedness and Purchase intention. The effect of two-sidedness was not stronger for those reporting low subjective knowledge compared to those reporting high subjective knowledge. Thus, **H3 is not empirically supported.**

4.4.4 H4 – PDI Moderation Analysis

Table 10 shows the results from our moderation analysis regarding the moderating effect of PDI on the relationship between Message sidedness and Purchase intention, using Message sidedness as the independent variable. Message sidedness has a magnitude of 0.84 with a p -value of .005, making it significant. PDI has a magnitude of 0.11 and a p -value above the accepted level of 5%, making it not significant. The interaction term has a magnitude of 0.44 and a p -value of .149, making it not significant, according to the decision rule.

Table 10. Results from the PDI moderation analysis using Message sidedness as the independent variable

	Coefficient (β)	S.E.	t	p
(Intercept)	3.02	0.16	20.77	$< .001$
Message sidedness	0.84	0.29	2.89	.005
PDI	0.11	0.15	0.69	.490
Interaction term*	0.44	0.30	1.45	.149

Note: Significant p -values at 5% significance level are bolded. * Message sidedness $\times$ PDI

The result of our moderation analysis regarding the moderation effect of PDI on the relationship between Message sidedness and Purchase intention, using PMS as the independent variable, is shown in Table 11. The PMS variable has a magnitude of 0.24 while the PDI variable has a magnitude of 0.06. PMS has a p -value below the accepted level of 5% while PDI has a p -value above the accepted level, making PMS significant and PDI not significant. The interaction term has a magnitude of 0.05 and a p -value of .433, making it not significant, according to the decision rule.

Table 11. Results from the PDI moderation analysis using PMS as the independent variable

	Coefficient (β)	S.E.	t	p
(Intercept)	3.02	0.14	21.17	< .001
PMS	0.24	0.06	3.66	< .001
PDI	0.06	0.15	0.40	.688
Interaction term*	0.05	0.06	0.79	.433

Note: Significant p -values at 5% significance level are bolded. * PMS $\times$ PDI

Due to none of the models displaying significant interaction terms, we fail to reject the null that the β_3 is equal to zero and fail to prove that PDI plays a moderating role on the relationship between Message sidedness and Purchase intention. The effect of two-sidedness was not stronger for those reporting low PDI compared to those reporting high PDI. Thus, **H4 is not empirically supported**.

4.4.5 H5 – Two-Sided Messaging's Effect on Message Credibility

Table 5 displayed that there was a significant difference in means in Message credibility between the two groups ($M_1=4.42$, $M_2=5.22$) as $p = .001$. The spread of Message credibility is depicted in Figure 8. The effect size is medium at 0.61 (Cohen, 1992). Based on the decision rule, we reject the null hypothesis of equal means between the subject groups, meaning **H5 is empirically supported** since the effect is statistically significant.

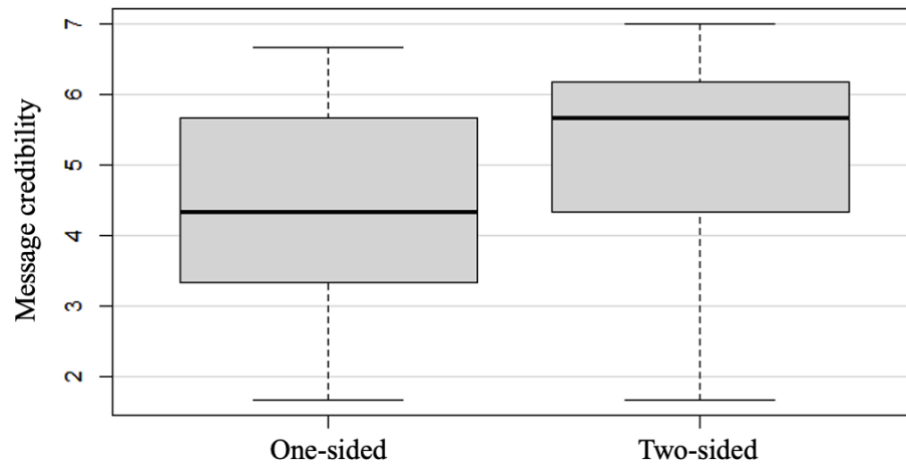


Figure 8. Boxplots showing the spread of Message credibility in both subject groups

Based on the significant difference found when testing for H5, we decided to further investigate the relationship between Message sidedness and Purchase intention by testing mediating effects of Message credibility, even though it was not part of our hypothesis development. The same method used in H2 was applied. Results (see Appendix 8) showcase a full mediation, as the indirect effect is significant ($p = .002$), the total effect is significant ($p = .010$), and the direct effect is not significant ($p = .184$).

5. Discussion and Concluding Remarks

The primary purpose of this thesis was to investigate how one-sided and two-sided messaging affects consumer behaviour in an online secondary marketplace setting, specifically at Facebook Marketplace, using intention as a determinant. To formulated guiding research question was: *How does the use of one-sided and two-sided messaging impact consumers' purchase intention on online marketplaces for second-hand products?*

5.1 Conclusions

5.1.1 Purchase Intention

It was hypothesised purchase intention would be higher for those presented with a two-sided message compared to those presented with a one-sided message. This pattern was empirically supported in our experiment, indicating that two-sided messaging leads to increased purchase intention. Despite the small manipulation, the effect on purchase intention was medium, arguably greater than one could have expected. Possibly, this is due to the C2C context, where information asymmetry often plays a large role and where enhancing credibility is especially important since a lack of buyer protection and source credibility exists. In accordance with the TPB model, the increased intention should lead to actual purchase behaviour. Given the intention-behaviour correlation of .53 (Sheeran, 2002), the effect on actual purchase behaviour should be lower than the effect on purchase intention found in this thesis. Moreover, our results align with Rucker et al. (2008), who found a positive relationship between message sidedness and purchase intention. Reviewing our result, we could see how both subject groups on average still, however, had a low intention to purchase with means below the middle score. One possible reason for this low score could be the product of choice in the experiment, for further discussion see Section 5.3. Noteworthy is Contact intention had on average slightly higher means than Purchase intention. This could be due to the high commitment related to actual purchasing. Contacting a seller arguably does not imply the same high level of commitment. This finding is relevant, particularly in the C2C context, as contacting the seller is a step prior to buying.

5.1.2 Attitude Certainty

Attitude certainty did not mediate the relationship between two-sided messaging and purchase intention as we, based on previous studies, hypothesised. This indicates that attitude certainty is not a precursor of purchase intention in the C2C context. This could be due to our respondents expending little cognitive effort when presented with the advertisement. Specifically, in the C2C context, low cognitive effort could potentially be extra salient. If so, consumers might not even have the chance to reflect on their level

of certainty in relation to their attitude, which would be in line with Pfeiffer et al. (2019). Moreover, the survey context should give rise to additional deficiencies in cognitive effort due questions inducing emotions of indifference (Söderlund 2010). Possibly, the respondents perceive reporting secondary cognitions (which attitude certainty is) too demanding. In addition, it is worth pointing out that the mean differences in attitudes against the product were not significant. This implies that inferences of certainty do not stem from the extremity of attitude itself but from shortcomings of the experimental design

5.1.3 Subjective Knowledge

Subjective knowledge was hypothesised to be a moderator in the relationship between two-sided messaging and purchase intention. The results gave no evidence for this effect in this context. This could again be due to product of choice, as, for instance, even though one's score on subjective knowledge about furniture is very low, one still possesses great general knowledge about furniture as it is a universal, non-technical product. Thus, the consumers' attitude certainty for both those perceiving themselves to have low subjective knowledge and high subjective knowledge was enhanced to the same degree, implying no moderation. Alternatively, it could be due to the C2C context at large, where consumers perhaps have a habit of exerting little cognitive effort, reducing the impact of subjective knowledge.

5.1.4 Purchase Decision Involvement

PDI was hypothesised to moderate the relationship between two-sided messaging and purchase intention in the C2C context, something our result did not find any support for. This variable was treated with caution as the reliability was contested since it had a Cronbach's alpha below the acceptable level. Thus, one possible explanation for our results could be the variable not being consistent in its measure. Additionally, PDI concerns a consumers' view of what a right or wrong choice of a product would mean to them. Thus, another reason explaining our result could be derived from the difficulties of determining PDI in a self-completed questionnaire experiment setting.

5.1.5 Message Credibility

It was hypothesised message credibility would be higher for those presented with a two-sided message compared to those presented with a one-sided message. In our experiment, this pattern was empirically supported, adding to the previous consistent research on the positive effect of two-sided messaging on message credibility. Noteworthy is that message credibility is high for both subject groups. This could be due to the stimulus (the ad) having acquired meaning from its origin. In the first block of the survey, our names were visible along with the name of our supervisor and the name of the institution. According to attribution theory, the respondents might have

derived their perception of message credibility from perceiving us authors as a credible source, in the absence of specified seller. If this is the case, our results could potentially be amplified, however, the difference in means is still significant, implying a real effect.

Moreover, our findings reveal that two-sided messaging can be a possible solution to the problem of information asymmetry that can arise on C2C marketplaces. Two-sided messaging is a method that enables buyers to get more complete information about the product listed on the marketplace. By presenting the drawbacks of the listed product there is more transparency of the information of the product and its quality, which increases the perceived credibility of the message, in turn decreasing the information asymmetry and mistrust between sellers and buyers.

We additionally investigated the potential mediating effect of message credibility on the relationship between message sidedness and purchase intention and found full mediation. This is interesting, but perhaps not so strange since previous research has found two-sided messaging to increase advertisement credibility (e.g., Anderson & Golden, 1984; Campos, 2017; Semaan et al., 2018) and strengthen perceptions of the advertised product possessing the positively claimed attributes, i.e., it is conceptually close to attitude certainty. Why then did we see a significant effect in this mediation, and not in the attitude certainty mediation analysis? One explanation could be derived from the experiment setting, which produces low cognitive effort, as explained in Section 5.1.2. Perhaps, it was easier for the respondents to report primary cognitions (message credibility) than secondary cognitions (attitude certainty). If so, message credibility should have a higher level of validity, which could explain the mediating effect.

5.2 Practical Implications

Currently, when posting a listing on Facebook Marketplace for the first time, a short guide for how to best present it is displayed. Based on our research, this guide could be further improved with a short add-on suggesting how including drawbacks in the description can increase the credibility of the message and the likelihood of buyers wanting to purchase the listing. This could benefit the sellers, the platforms and society at large. Sellers could get increased interest from buyers and ease in selling the listed item. Today, a lot of listed items on the platforms remain unsold; Possibly, two-sided messaging could help sell those. The platforms themselves, which unlike B2C business models benefit from self-propelled growth by motivated buyers and sellers, could experience growth. Finally, as second-hand consumption extends the product lifetime, it could contribute to the transition to a circular economy, benefitting society at large. Apart from the first-time short guide, there are other types of similar implementable interventions. For example, adding a “How to write good product descriptions”-link with a brief guide right below the product description box is an effective alternative

(currently there is a “How to take good listing photos”-link right under the box where photos are added – a similar one for product description could be added). Regardless of whether any of these interventions are implemented or not, our findings suggest that sellers should consider if their items have drawbacks and if they should potentially present them in their product description.

5.3 Limitations and Suggestions for Further Research

One of the main limitations of the thesis lies in the methodology through which data was collected. First, since the data was collected through convenience sampling, some would argue that the findings cannot be generalized since the main problem with such a sample is its lack of representativeness and its non-generalisability (Bell et al., 2019; Söderlund, 2010). This could have been avoided by distributing the survey in a more representative manner not relying on our own channels.

Second, the data was collected through an online self-completion questionnaire which comes with several prerequisite problems. Since it was not possible to track the respondents, we could not distinguish from which of the channels the specific respondent came from, i.e., we do not know the degree homogeneity in our sample. Moreover, online surveys are known for their high level of dropout, particularly if they consist of many questions (Bell et al., 2019). In our case, almost two-fifths of the respondents did not complete the survey, this low response rate implies a high risk of bias. In other words, if there are differences between participants and refusals, which is reasonable to assume, the results will probably be affected.

Third, the translations of the pre-existing scales (See section 3.4), particularly those related to measuring Attitude and Attitude certainty, might pose a limitation which affects the degree to which we can interpret the results. The translation from English to Swedish might have resulted in formulations which respondents perceived unclear. If so, it would result in a decrease in the validity of the thesis. This limitation we have acknowledged in hindsight.

Fourth, all the data collected is based on own-assessed intention to purchase which is something different from actual behaviour. Behaviour would be the ultimate measure to study to fulfil the purpose of this thesis, however, measuring behaviour is not possible when using questionnaires. Thus, our thesis is limited to measuring only purchase intentions and we must rely on the TPB model to be able to conclude actual behaviour. Furthermore, the self-assessment aspect of the survey imposes a risk that the responses do not reflect reality as the respondents might intentionally or mistakenly answer in a way not congruent with what they actually intend or would do.

Another substantial limitation can be derived from the product of choice (coffee table), which makes our result non-applicable to other products. A table is one type of product

category that has certain characteristics giving rise to certain types of demands of functions and quality. A car, for instance, has different characteristics than a table, and thus two-sided messaging might not operate in the same way in relation to cars. If replicating this study, it would be of further interest to investigate two-sided messaging using a listing of other types of products or to include for instance both high and low involvement products, as well as transformational and informational product categories. Furthermore, choosing a different kind of product could arguably be especially relevant for further investigations of the moderating effect of subjective knowledge and PDI. In terms of subjective knowledge, it would be interesting to choose a product exhibiting a greater spread in knowledge as this in theory would lead to a higher effect. For PDI, investigating the effect of price in relation to two-sided messaging would be interesting as different price points might influence PDI. Finally, it would be of interest to investigate how different degrees of negativity effect purchase intention.

5.4 Final Words

This thesis aimed at investigating how one-sided and two-sided messaging affects consumer behaviour in an online secondary marketplace setting, using intention as a determinant. We additionally set out to investigate two potential moderators and one potential mediator, and effects on message credibility. We found that two-sided messaging impact consumer's purchase intention to a moderate degree, and that two-sided messaging increases message credibility. In this study, we did not find support for any moderating or mediating effects, however this does not rule out their influence in other contexts. The C2C research area is still understudied and the adoption to sustainable consumption is becoming more and more pressing by each day. Thus, we propose a continued investigation on which tactics work at C2C platforms. And, finally, next time you are selling on a secondary marketplace, seriously consider presenting downsides in your product description. Do not hide your drawbacks – embrace them.

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6. Appendices

APPENDIX 1

Image alternatives tested in the pilot study



Note: All pictures are the authors own.

Figure 9. Images included in the pilot study to determine which one to include in the main survey

APPENDIX 2

Complete survey

This appendix represents the questionnaire distributed to the respondents in its original disposition with no changes in the wordings of the questions or the response alternatives, although with an altered layout, e.g. the matrix questions are presented with the questions first, followed by the scale points and response alternatives. The questions are segmented into blocks corresponding to Figure 5 in Section 3.3.3.

Block 1: Introduction

Välkommen att delta i vår undersökning!

Enkäten syftar till att undersöka intentioner på digitala köp- och säljmarknader. Undersökningen genomförs av Sofie Bixo och Tyra Löthman som en del av en kandidatuppsats i marknadsföring på Handelshögskolan i Stockholm.

Enkäten tar cirka 5-7 minuter att besvara. Kom ihåg att alla svar är anonyma och att alla uppgifter behandlas konfidentiellt.

Dina svar gör skillnad! För varje deltagare i denna undersökning skänker vi 2 kr till UNICEF:s arbete i Ukraina.

Tack för att du tar din tid att delta!

Vänliga hälsningar,

Tyra Löthman och Sofie Bixo

Vid eventuella frågor om studien är du välkommen att kontakta oss på 25145@student.hhs.se (Tyra Löthman)

Block 2: Consent to GDPR

Vänligen läs följande information relaterat till GDPR (General Data Protection Regulation)

Project: BSc thesis in Marketing

Year and semester: 2022, autumn

Students conducting the survey: Sofie Bixo, BSc student (25133@student.hhs.se); Tyra Löthman, BSc student (25145@student.hhs.se)

Supervisor and department at SSE: Hanna Berg, Affiliated Researcher, Department of Marketing and Strategy

Supervisor's email address: hanna.berg@hhs.se

Type of personal data collected in this survey: initials, gender and age

Information relaterat till dina rättigheter under GDPR

As an integral part of the educational program at the Stockholm School of Economics, enrolled students complete an individual thesis. This work is sometimes based upon surveys connected to the subject. Participation is naturally entirely voluntary, and this

text is intended to provide you with necessary information about that may concern your participation in the study. You can at any time withdraw your consent and your data will thereafter be permanently erased.

Confidentiality. Anything you say or state in the survey will be held strictly confidential and will only be made available to supervisors, tutors and the course management team.

Secured storage of data. All data will be stored and processed safely by the SSE and will be permanently deleted when the projected is completed.

No personal data will be published. The thesis written by the students will not contain any information that may identify you as a participant to the survey.

Your rights under GDPR. You are welcome to visit <https://www.hhs.se/en/about-us/data-protection/> in order read more and obtain information on your rights related to personal data.

Tveka inte att kontakta oss på 25145@student.hhs.se om du har några frågor kring hur vi hanterar datan!

Consent: Jag har tagit del av informationen ovan och samtycker till att delta i denna studie.

- **Ja.** Jag har tagit del av informationen ovan och samtycker att delta i studien. Om du samtycker att delta, vänligen skriv dagens datum (DDMMÅÅÅÅ) samt dina initialer (inget mellanslag) i rutan nedanför.
- **Nej.** Jag samtycker inte och vill inte delta.

Block 3: Situational description

Du är i behov av ett nytt soffbord och tänker att du vill köpa soffbordet begagnat. Du går in på den digitala köp- och säljsidan Facebook Marketplace för att leta. Efter en stund hittar du ett soffbord som fångar ditt intresse och klickar dig därför vidare på annonsen för att ta reda på mer information.

Vänligen **läs annonsbeskrivningen noga**, de går inte att gå tillbaka i enkäten.

På nästa sida får du se annonsen som du klickar dig in på.

Block 4a and 4b: Manipulation (randomized), attitude, attitude certainty, purchase intention, message credibility

Image in 4a (one-sided subject group) shown on computers

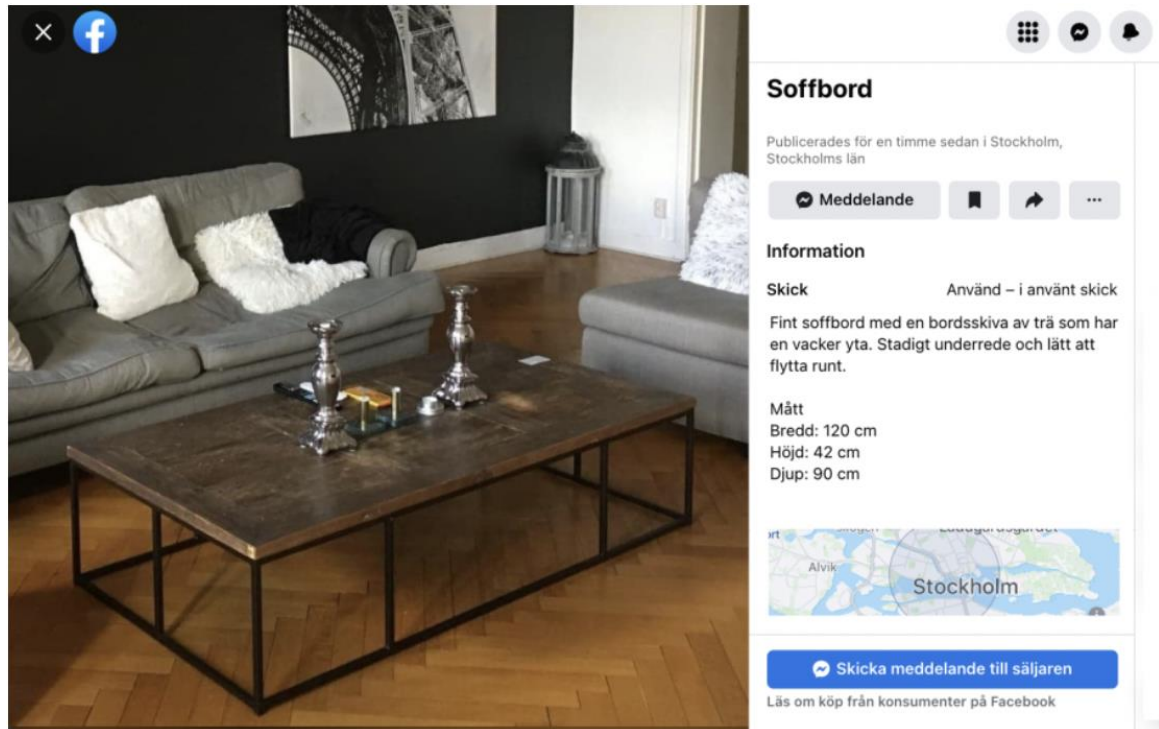


Image in 4b (two-sided subject group) shown on computers

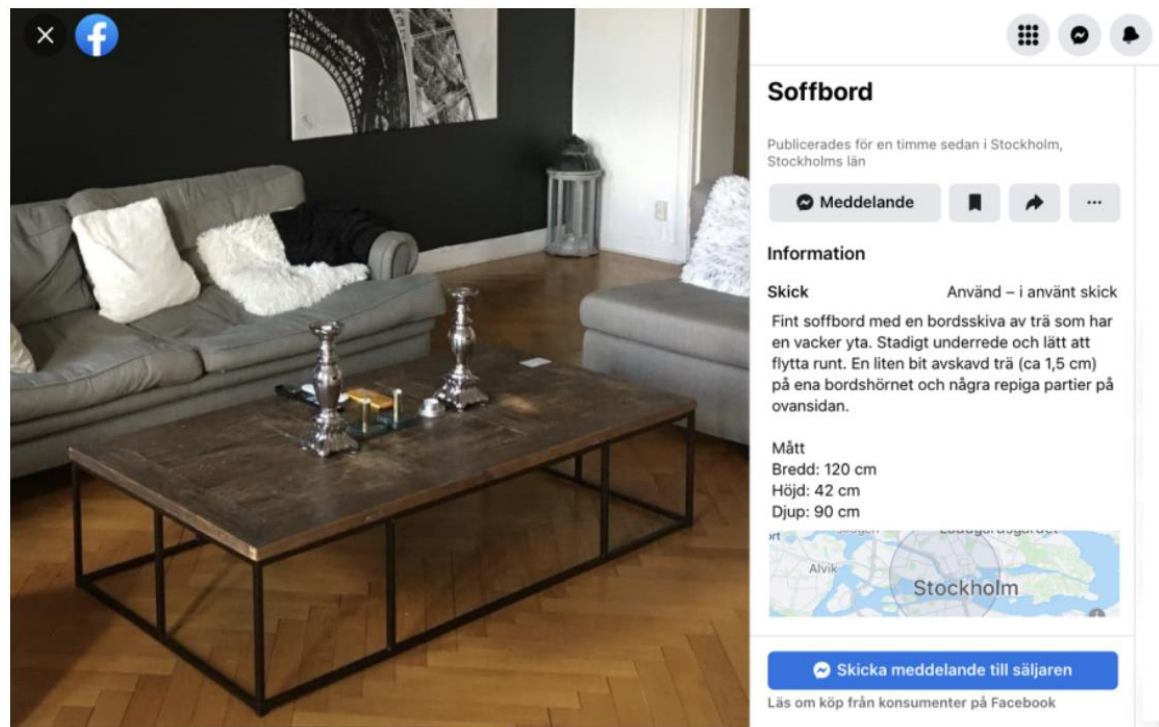
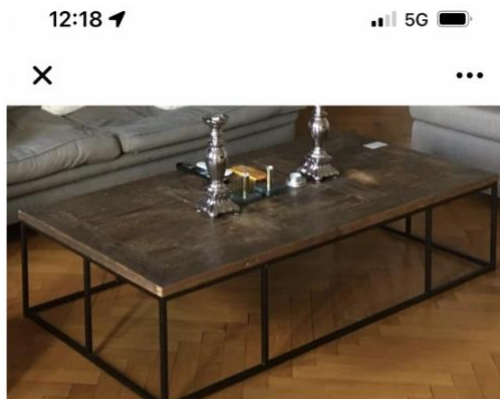


Image in 4a and 4b shown on mobile devices (4a to the left, 4b to the right)



Soffbord

Skicka meddelande till säljaren



Avisering



Spara



Dela



Skicka
erbjudande

Beskrivning

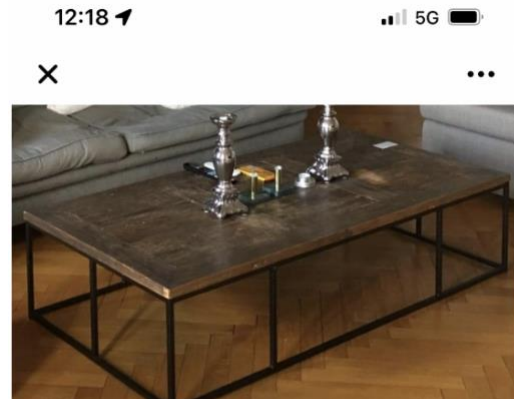
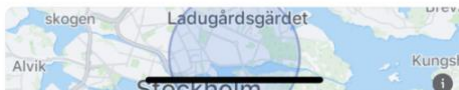
Fint soffbord med en bordsskiva av trä som har en vacker yta. Stadigt underrede och lätt att flytta runt.

Mått

Bredd: 120 cm

Höjd: 42 cm

Djup: 90 cm



Soffbord

Skicka meddelande till säljaren



Avisering



Spara



Dela



Skicka
erbjudande

Beskrivning

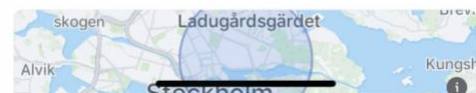
Fint soffbord med en bordsskiva av trä som har en vacker yta. Stadigt underrede och lätt att flytta runt. En liten bit avskavd trä (ca 1,5 cm) på ena bordshörnet och några repiga partier på ovensidan.

Mått

Bredd: 120 cm

Höjd: 42 cm

Djup: 90 cm



The rest of the content between the sub-blocks is equal from this point and onwards in the questionnaire, thus the questions are not separated.

Q1. Hur är din attityd gentemot soffbordet i annonsen? Skala: 1, 2, 3, 4, 5, 6, 7

1. Mycket dålig/Mycket bra
2. Gillar inte alls soffbordet/Gillar soffbordet mycket
3. Mycket negativt intryck/Mycket positivt intryck

Q2. Baserat på vad du svarade på frågan ovan, vänligen besvara nedanstående frågor.

Skala: 1 (Inte alls), 2, 3, 4, 5, 6, 7 (Väldigt)

1. Hur säker är du på din attityd till soffbordet i annonsen?
2. Hur övertygad är du att din attityd till soffbordet är korrekt?

Q3. Givet att du är i behov av ett nytt soffbord, hur är dina intentioner gällande bordet i annonsen? Skala: Instämmer inte alls (1), instämmer i mycket liten grad (2), instämmer i liten grad (3), varken eller (4), instämmer i ganska hög grad (5), instämmer i mycket hög grad (6), instämmer helt (7).

1. Avser definitivt att kontakta säljaren
2. Väldigt högt intresse av att kontakta säljaren
3. Kommer troligtvis att kontakta säljaren
4. Avser definitivt att köpa
5. Väldigt högt köpintresse
6. Kommer troligtvis att köpa

Q4. Hur väl beskriver följande adjektiv textinnehållet i annonsen? Skala: Väldigt dåligt (1), dåligt (2), något dåligt (3), varken eller (4), något väl (5), väl (6), väldigt väl (7).

1. Korrekt
2. Autentisk
3. trovärdig

Block 5a and 5b: Manipulation check

Q5. Tänk tillbaka på annonsen som du såg i början av enkäten och ta ställning till följande påståenden. Skala: Instämmer inte alls (1), instämmer i mycket liten grad (2), instämmer i liten grad (3), varken eller (4), instämmer i ganska hög grad (5), instämmer i mycket hög grad (6), instämmer helt (7).

1. Produktbeskrivningen presenterade bara positiva attribut
2. Produktbeskrivningen presenterade bara negativa attribut
3. Produktbeskrivningen presenterade både positiva och negativa attribut

Block 6a and 6b: Subjective knowledge, PDI

Q6. Vänligen ta ställning till följande påståenden om produktkategorin som visades i annonsen. Skala: Instämmer inte alls (1), instämmer i mycket liten grad (2), instämmer i liten grad (3), varken eller (4), instämmer i ganska hög grad (5), instämmer i mycket hög grad (6), instämmer helt (7).

1. Jag vet ganska mycket om möbler
2. Bland mina vänner är jag en av 'experterna' på möbler
3. Jag känner mig inte så kunnig om möbler

Q7. Hur går dina tankar inför ett köp av den typ av produkt som visades i annonsen? Skala: Instämmer inte alls (1), instämmer i mycket liten grad (2), instämmer i liten grad (3), varken eller (4), instämmer i ganska hög grad (5), instämmer i mycket hög grad (6), instämmer helt (7).

1. Jag bryr mig väldigt mycket vilken jag köper
2. Alternativen som finns tillgängliga på marknaden är mycket olika
3. Det är viktigt för mig att fatta rätt beslut vid ett köp

Block 7: Buying/selling habits

Q8. Jag har någon gång handlat på digitala köp- och säljmarknader (såsom t.ex. Blocket.se, Facebook Marketplace)

- Ja

- Nej

If 'Ja' → display Q9

If 'Nej' → go to Q10

Q9. Uppskattningsvis, hur många gånger har du handlat på digitala köp-och säljmarknader under det senaste året?

- *Ange antal gånger med en siffra: Fritext*

Q10. Jag har någon gång sålt på digitala köp- och säljmarknader (såsom t.ex. Blocket.se, Facebook Marketplace)

- Ja
- Nej

If 'Ja' → display Q11

If 'Nej' → go to Q12

Q11. Uppskattningsvis, hur många gånger har du sålt på digitala köp-och säljmarknader under det senaste året?

- *Ange antal gånger med en siffra: Fritext*

Block 8: Demographics

Q12. Hur gammal är du?

- *Svara genom att ange en siffra: Fritext*

Q13. Hur identifierar du dig?

- Kvinna
- Man
- Icke-binär
- Annat
- Föredrar att inte specificera

Block 9: Survey evaluation

Q14. Vad tyckte du om enkäten och undersökningen? Skala: Instämmer inte alls, instämmer i låg grad, instämmer delvis, instämmer i hög grad, instämmer helt.

1. Frågorna var klart formulerade
2. Svarsalternativen var klart formulerade
3. Undersökningen är meningsfull
4. Enkätfrågorna försökte påverka mina svar i någon viss riktning
5. De är viktigt att du är uppmärksam, vänligen markera instämmer inte alls

APPENDIX 3

Facebook Marketplace Buying and Selling Groups

Table 13. List of groups and their number of members

Facebook group	Number of members
Köp, Sälj, Byt & Annonsera i Sundsvall/Västernorrland	5 800
Köp & Sälj Jämtland	11 100
Umeå Köp, sälj, byt, bud, skänkes. Sidan utan krav och villkor!	35 300
Köp, Byt, Skänk Och Sälj Sollentuna Och Angränsande Kommuner	19 300
Köp och Sälj Östersund	37 400
Sverige, Köp och Sälj	8 000
Köp och sälj Orsa	8 200
Köp, Byt och sälj i Järfälla, Spånga, Kungsängen, Bro, Solna, Sollentuna	3 200
Köp och Sälj, Inget gnäll. Norrtälje	24 000
Stockholm Köp och sälj	100 000
Köp och sälj i Örebro	48 000
Köp Och Sälj	12 000
Köp Och sälj Sverige	9 300
Köp och sälj-Malmö	2 800
Köp Sälj Byt Bortskänk i Stockholm	19 000
Köp, Sälj och Bortskänk i Stockholms Stad!	88 000
STOCKHOLM KÖP & SÄLJ	119 000
Rågsved, Hagsätra, Högdalen, Bandhagen köp/sälj/byt	12 000
Köpa, sälja, byta eller ge bort i Stockholm	9 200
Säljes, Köpes; Bortskänkes; Bytes i Stockholm	61 000
Haninge Köp Och Sälj Enkla/Få regler	34 000
Köp & Sälj - Stockholm	66 000
Köp, Sälj, Byt och bortskänk i Stockholm Stad	209 000
Köp vad du vill i Skåne	163 000
Sälj, köp, byt och skänkes i Stor Stockholm	1 200
Köp och sälj i Farsta	9 400
KÖP, BYT och SÄLJ - Ljusdal med omnejd	4 800

APPENDIX 4

Survey Evaluation

Table 14. Distribution of answers on survey evaluation question (Q14)

Statement	Strongly disagree	Disagree	Partly Agree	Agree	Strongly Agree
The questions were clearly formulated	3%	7%	37%	34%	19%
The response alternatives were clearly formulated	1%	7%	22%	41%	28%
The study is meaningful	3%	11%	39%	33%	15%
The questions tried to influence my answer in any direction	49%	31%	12%	5%	3%

APPENDIX 5

Model Accuracy

Table 15. Results from data and model accuracy tests

Model	R ²	VIF	Breusch-Pagan	Jarque-Bera
1. H2: Mediation (with Message sidedness) ^a	0.07	< 10	.004	.208
2. H2: Mediation (with PMS) ^b	0.11	< 10	.097	.148
3. H3: Moderation (with Message sidedness) ^c	0.05	< 10	.673	.125
4. H3: Moderation (with PMS) ^d	0.09	< 10	.565	.191
5. H4: Moderation (with Message sidedness) ^e	0.06	< 10	.140	.198
6. H4: Moderation (with PMS) ^f	0.09	< 10	.153	.141

Note: Significant *p*-values at 5% significance level are bolded. ^a Shows no signs of multicollinearity as the VIF-statistics are < 10, signs of heteroscedasticity as the Breusch-Pagan test show a *p*-value < .05, no signs of problems with the normality of the errors. ^{b, c, d, e, f} Shows no signs of multicollinearity as the VIF-statistics are < 10, no signs of heteroscedasticity as the Breusch-Pagan test show a *p*-value > .05, no signs of problems with the normality of the errors.

APPENDIX 6

Boxplots showing the spread of the data.

This appendix showcases the boxplots for each of the variables except Purchase intention and Message credibility. See Section 4.3.1 Figure 7 for the Purchase intention boxplot, and Section 4.3.5 Figure 8 for the Message credibility boxplot.

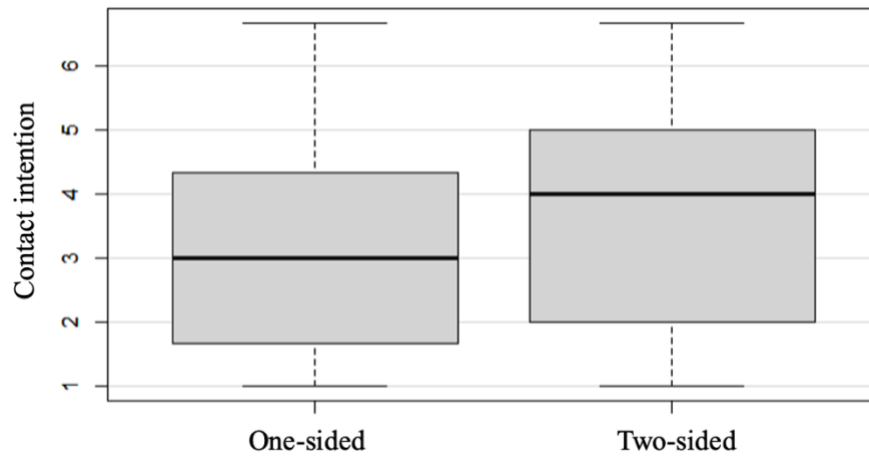


Figure 10. Boxplots showing mean differences in contact intention between subject groups

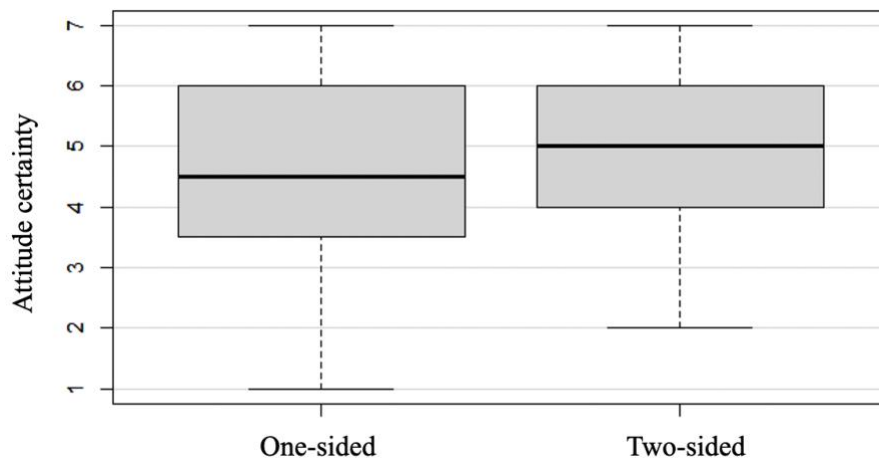


Figure 11. Boxplots showing mean differences in attitude certainty between subject groups

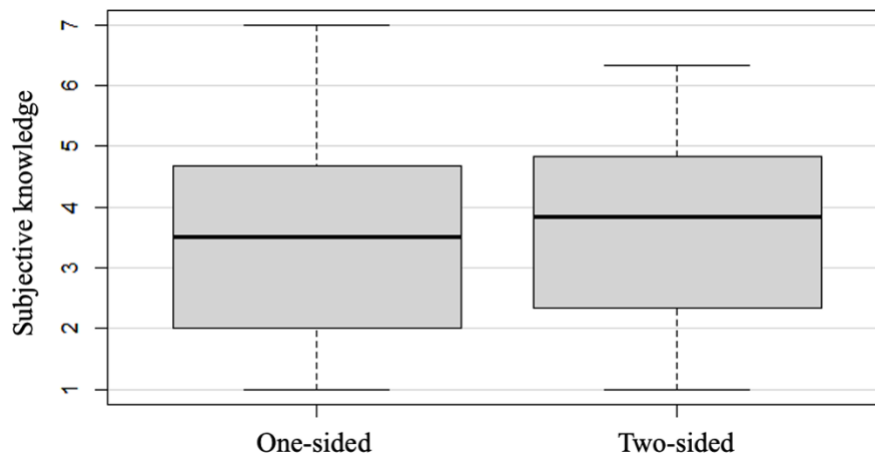


Figure 12. Boxplots showing mean differences in Subjective knowledge between subject groups

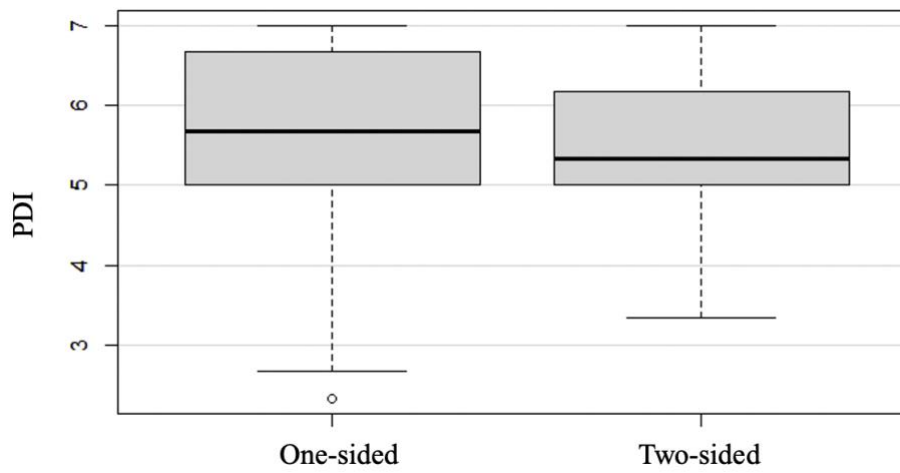


Figure 13. Boxplots showing mean differences in PDI between subject groups

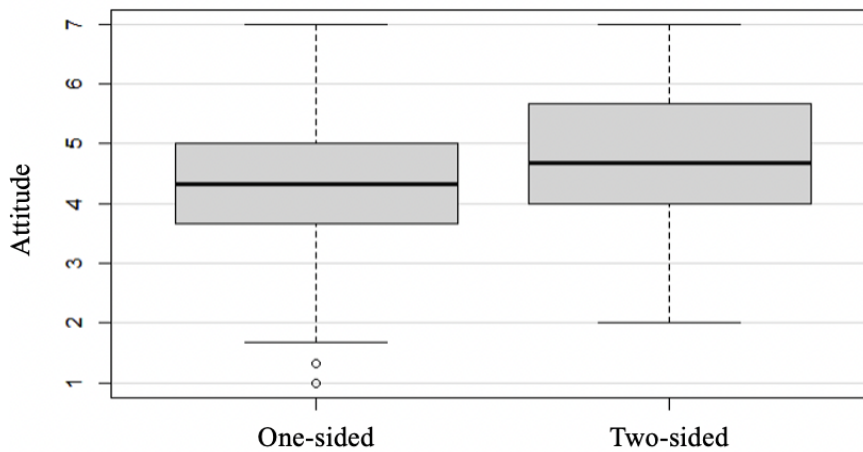


Figure 14. Boxplots showing mean differences in Attitude between subject groups

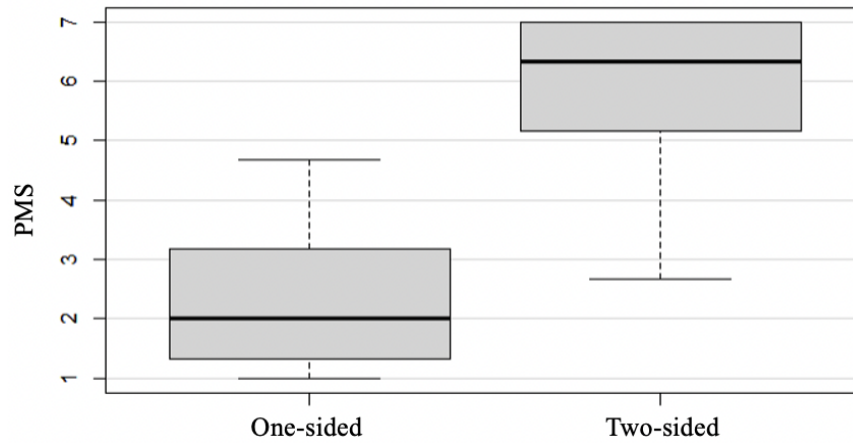


Figure 15. Boxplots showing mean differences in Attitude between subject groups

APPENDIX 7

Table 16. Correlation matrix with significance levels

	1	2	3	4	5	6	7	8
Panel 1: One-Sided								
1 Purchase intention	1	.86***	.38**	-.03	-.03	-.10	.44***	-.21
2 Contact intention	.86***	1	.37**	.11	-.07	-.06	.48***	-.16
3 Message credibility	.38**	.37**	1	.40**	.12	.21	.42**	-.14
4 Attitude certainty	-.03	.11	.40**	1	-.13	.07	.07	-.02
5 Subjective knowledge	-.03	-.07	.12	-.13	1	.25	.14	-.01
6 PDI	-.10	-.06	.21	.07	.25	1	.16	.24
7 Attitude	.44***	.48***	.42**	.07	.14	.16	1	-.06
8 PMS	-.21	-.16	-.14	-.02	-.01	.24	-.06	1
Panel 2: Two-Sided								
1 Purchase intention	1	.89***	.54***	.25	.14	.16	.73***	.26*
2 Contact intention	.89***	1	.41**	.14	.04	-.07	.76***	.18
3 Message credibility	.54***	.41**	1	.46***	.23	.35**	.45***	.39**
4 Attitude certainty	.25	.14	.46***	1	.25	.27*	.22	.45***
5 Subjective knowledge	.14	.04	.23	.25	1	.29*	.05	.05
6 PDI	.16	-.07	.35**	.27*	.29*	1	.12	.33*
7 Attitude	.73***	.76***	.45***	.22	.05	.12	1	.22
8 PMS	.26*	.18	.39**	.45***	.05	.33*	.22	1

Note: * p -value < .05 ** p -value < .01 *** p -value < .001

APPENDIX 8

The results from the analysis testing message credibility as a potential mediator

Table 17. Results from the Message credibility casual mediation analysis using Message sidedness as the independent variable

	Coefficient (β)	LLCI*	ULCI*	<i>p</i>
ACME	0.45	0.16	0.79	.002
ADE	0.39	-0.18	0.90	.184
Total Effect	0.84	0.21	1.39	.010

Note: Significant *p*-values at 5% significance level are bolded. * 95% CI.