Abstract

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Initial Business-to-Business Sales Encounters

The Impact of the Similarity-Attraction Effect

Keywords: perceived similarity; benevolence; integrity; power; expertise; likeability; salesperson trust.

During initial business-to-business encounters, salespeople try to enhance buyers' future interaction intentions. A common belief is that increasing buyers' similarity perceptions increases the chances of future interaction. This study assesses the impact of the similarity-attraction effect on future interaction.

By synthesising social psychology and marketing literature, a conceptual framework is proposed, in which perceived similarity influences salesperson trust. This relationship is mediated by task-related and social assessments of buyers. Task-related assessments comprise willingness (benevolence and integrity) and competence (power and expertise). Social attraction is conceptualised as likeability. Salesperson trust drives anticipated future interaction, together with organisational trust and anticipated added value.

The conceptual framework was empirically tested through a cross-sectional survey. Dutch professional buyers assessed recent initial sales encounters. A sample of 162 dyads was analysed, using PLS-SEM, including FIMIX segmentation.

This study demonstrates support for a third willingness construct: willingness behaviour. This construct implies that buyers are more influenced by expectations regarding behaviour, than assessments of salespeople’s attitudes. A homogeneous analysis supports the influence of perceived similarity on salesperson trust, both directly and through willingness behaviour. However,
model-based segmentation uncovers a segment of cost-oriented dyads and a segment of more profit-oriented dyads.

In cost-oriented dyads, there is no significant direct effect between perceived similarity and salesperson trust, and willingness behaviour nearly fully mediates this relationship. In more profit-oriented dyads, the similarity-attraction effect is not present. Theoretical and methodological contributions and managerial implications of these findings are discussed.
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Furthermore, I am grateful to all of the members of staff from Bradford and Tilburg Universities that were involved in my version of the DBA programme. I sincerely hope that all still involved will continue to shape and deliver the Doctorate of Business Administration, as I am more and more convinced of the unique function this programme has in bridging the gap between practice and academia.

“Een specialist is iemand, zoals een echte professor mij ooit voorhield, die er naar streeft om steeds meer te weten van minder, met als limiet alles te weten van niets” (Piet Vroon, as cited by Busato, 2004: 36)

[ A real professor once told me, that a specialist is someone who strives to know more about less, which ultimately leads to knowing everything about nothing.]

That brings me to all my fellow DBA students, and, most of all, my buddies of Cohort 9: a group of passionate practitioners, that could have prevented me from becoming a mere academic specialist. We did not only share the famous Bradford curries, shisha, and pub meals many times; we had many deep discussions about our work, trends in our respective businesses, and research projects. One of the downsides of finishing my DBA is that I will have to miss out on these precious moments on and around Heaton Mount.
I was told many times that undertaking a doctorate can be a lonely venture. The reason why I can only partly agree with that are my colleagues Kurt De Blick and Ingrid Snijders. I am grateful for all the discussions I had with them, and the fact that they were both willing to pursue publications with me. I wish them both well on their journey to completion of their doctorates. However, sometimes solitude is a necessity. Ralph van der Wekke allowed me to retreat into one of his offices at Bedrijvencentrum de Punt in Bergen op Zoom, whenever I asked him.

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One pivotal moment is engraved in my mind. During the awards ceremony of the second Dutch Student Sales Challenge in 2013, a senior Canon representative passionately declared that every salesperson should always "mirror, mirror, mirror" in order to be successful. It is impossible to think of a clearer signal that my thesis resonates in praxis. During the more difficult moments of my DBA, reliving that moment has been most useful.

Also, I remain indebted to the HZ University of Applied Sciences. I thank my colleagues, managers and the board of executives for their confidence, patience and support. Mum and Dad; thanks for the genes, upbringing and support.

Jeanine, Maarten, and Lenneke; thank you for being in my life. No words can express, how important the three of you are in my life. I could tell you that I will try to make up for all the time lost, but you know me better than that.

Hans Dekker

HZ University of Applied Sciences
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Chapter 1

Introduction:

It is estimated (Stevens, 2014) that companies worldwide spend between three and six billion euros on sales training. When evaluating sales training (Lupton et al., 1999), organisations monitor the satisfaction of the salespeople about the deliverance of the training, and the sales performance of each individual salesperson, relative of her or his peers. However, systematic evaluation of the content of sales training is lacking (Lupton et al., 1999; Dekker, 2010).

A major cause for this lack of an evidence-based approach in sales is the wide research-practice gap (Van de Ven and Johnson, 2006; Dekker and De Blick, 2014). The primary causes for this gap are researching the wrong topics (Fogel et al., 2012), far too much conceptual research that fails to deliver actionable tools (Geiger and Guenzi, 2009; Avlonitis and Panagopoulos, 2010), and failing to rigorously test the added value of currently used tools (Lupton et al., 1999; Dekker, 2010).

A specific mismatch that is identified is the lack of research in the selling process itself (Mantrala et al., 2008; Avlonitis and Panagopoulos, 2010). Although there are many common practices and beliefs regarding efficient and effective ways for prospecting, making a good introduction, negotiations, and the closing of deals, these are seldom put to the test by sales researchers (Geiger and Guenzi, 2009).

Over the last few years, sales research, and joint efforts between researchers and practitioners, have increased (Fogel et al., 2012; Stevens, 2014). An example is that the SPIN-selling approach (Rackham, 1995) is only cited twice in the Journal of Personal Selling and Sales Management (JPSSM). Neither of the articles (Comer and Drolling, 1999; Cron et al., 2005) furthers the understanding of, verifies, or contextualises this selling-approach. However, after the introduction of another more recent competing sales approach, the Challenger Sale (2011), it is referred to three times in JPSSM, and a comprehensive analysis
and critique (Rapp et al., 2014) is provided, followed by a call for further empirical research.

The purpose of this thesis is to contribute to this emerging notion of an evidence-based sales praxis, by researching the axiom that underpins such a specific set of selling process-oriented actionable tools during initial sales encounters referred to as the extended similarity-attraction hypothesis (Capon, 1975). The premise is that if sales people enhance buyers’ perceptions of similarity between themselves and those buyers, by means of techniques like identifying common interests, mirroring, and neuro linguistic programming, they will be more effective (Walters, 1928; Peterson, 1994; DeCormier and Jackson, 1998).

This thesis fulfils the requirements of a Doctorate in Business Administration. As a Doctorate in Business Administration is designed for professionals, it is fair to assume that the researcher is involved in the topic through personal experiences. To stress this point, I start this thesis by addressing my personal stance. This could be seen as a form of bracketing (Moustakas, 1994), or to uncover possible biases caused by the personal stance of the researcher (Creswell, 2007). Although it might serve these purposes to the author and some readers, it is foremost intended to serve as a platform for justification of this thesis through personal experience.

A research project can have aims that are of a substantive, theoretical, and methodological nature (Wallace and Wray, 2011). This thesis, on the role of the similarity-attraction effect in initial business-to-business sales encounters, is no exception. Therefore, this introduction proceeds to identify and justify these aims. After addressing my personal stance and presenting the aims and this research, a condensed overview of the aims is provided and the consequent objectives are introduced. To conclude, an outline of this thesis is provided.

**1.1 Personal stance**

After finishing my Bachelor's degree at HZ University of Applied Sciences and my Masters degree in Management at Nyenrode University in the Netherlands, I
started my professional career as a regional account manager for a Dutch company called Veenman Kantoormachines b.v. in 1995. My last active sales position was National Account Manager with Océ (recently taken over by Canon). Both companies were sales driven organisations, selling office equipment.

At that time, Veenman Kantoormachines b.v. had a strategy that can best be described as a challenger sales (Dixon and Adamson, 2011) approach avant la lettre, based on a service dominant logic proposition (Vargo and Lusch, 2004) called “document process contract”. The proposition consisted of long-term operational lease contracts of five to seven years, with the promise that a customer could change their office equipment configuration when needed. In order to keep costs at an acceptable level, customers had to sign up for another five or seven years again, thus enforcing customer loyalty.

Veenman Kantoormachines provided initial sales training. Over the course of several weeks, we were required to memorise product specifications, take personality tests, and participate in role-plays that were based on the personal experiences of the trainer. Despite good intentions, this initial training barely covered any explicit knowledge (Polanyi, 1966; Nonaka, 1994). The most memorable moment of our training was a two-day period, during which we were trained alongside one of the major account managers. We were shouted at and thrown out of the building by a secretary, who was somewhat unhappy about a new copier. A few years later, a sales academy was set up, providing an initial training based on more explicit knowledge, certified by NIMA (Dutch Marketing Institute).

My first manager was a seasoned salesperson. His coaching consisted of telling or showing what he would do in a given situation. When I was promoted to National Account Manager, no additional training was provided. As a large part of the job was European public procurement, I looked for either specific training or books that dealt with European tendering from a sellers’ perspective. I could find neither.
After my switch to Océ, I went through their initial training. Again, a large part consisted of role-play and product knowledge training. The SPIN-selling method (Rackham, 1995) was the core of a consistently presented selling technique. This method was presented as a silver bullet, despite not addressing the contextual issue of small and large sales Rackham (1995) identifies. In line with the SPIN-selling method, product managers and sales took the time to think of advantages and possible benefits (Rackham, 1995), based on the features of new products, when a new product was introduced. Océ Nederland already had a longstanding Océ Academy and international training centre in Venlo international Headquarters.

Since then, I have held positions as a Lecturer in Marketing & Sales, Director of the Academy of Business Administration, and Marketing Manager at HZ University of Applied Sciences, currently holding the position of Senior Lecturer. In all capacities, I have dealt with salespeople, sales managers, and sales trainers. My personal observation during those encounters is that the vast majority of salespeople rely on tacit knowledge to shape the way a sale is conducted. Many proclaim that, due to situational circumstances, explicit knowledge cannot be applied in their context. In line with the Polanyian (1966) approach to tacit knowledge, some even state explicitly that striving for a common body of knowledge is a mere waste of time.

My personal stance is that if all involved keep hiding behind this old-school view (Fogel et al., 2012) on knowledge in sales then lectures and researchers in business schools, and sales trainers, can keep on riding their hobbyhorses. Salespeople will consequently only learn by doing and, at best, by reflecting on these activities; and sales managers can keep refraining from aligning company strategy and salesforce behaviour. But if we, as representatives of the sales profession, would do so, we should not complain that marketing professionals keep seeing us as an instrument (Kotler et al., 2006). We lag further behind, while other related disciplines like logistics, marketing, and procurement keep developing their specific bodies of knowledge (Fogel et al., 2012).
Personally, I would rather join those that advocate an evidence-based (Rousseau, 2012) approach to sales. Therefore, I hope this thesis is a contribution to what could be deemed evidence-based sales.

1.2 Substantive aim

The substantive aim of this thesis is to contribute to the notion of evidence-based sales, by focussing on what is seen as a set of actionable tools by salespeople, trainers and managers: emphasising similarity in order to elicit sales or future interaction, especially during the early stages of the relationship (Peterson, 1994). This stance is as old as the profession of dedicated salespeople itself (Walters, 1928), but is still current (Goman, 2013; Hautamäki, 2015).

“Much […] business is secured through friendship […] based upon […] common interests. If we have more than one common interest with them [friends], we are apt to be even closer friends. The pre-approach should, therefore […] indicate to the common interests he has with the prospect, thus giving him possible points of contact, but it should at the same time, serve as a basis for building a lasting friendship and for securing future orders [my bold type].” (Walters, 1928: 146).

“Effective use of similarities can turn a cold confrontation into a close relationship that yields sales results over many years [my bold type].” (Peterson, 1994: 9).

There are many related actionable tools (DeCormier and Jackson, 1998), that are taught in sales training and advocated by salespeople and sales managers. One group of tools is concerned with mimicking, or matching, and mirroring non-verbal behaviour (Brownell, 1999; Boe, 2008), consisting of matching facial expressions, head position, eye expression, body position, stance/posture, breathing, and energy. Other techniques focus on tone or speed of voice (Brownell, 1999), or amending communication styles (Buzzotta and Lefton, 1971). A principle much associated with these tools is Neuro Linguistic Programming (NLP) (Wood, 2006). Furthermore, salespeople are trained to discover and emphasise similarities in interests, activities and background (Peterson, 1994).
Whether enhancing similarity leads to higher effectiveness of salespeople through attraction is not undisputed (Weitz, 1983). And although one conceptual framework was developed in the past (Lichtenthal and Tellefsen, 2001), it has not yet been empirically tested. Therefore, researching the extended similarity-hypothesis is identified as a research project that will help sales praxis to take on a more evidence-based approach.

The substantive aim of this thesis is to research the axioms regarding the relationship between buyer-seller similarities as perceived by buyers and sales outcomes. These axioms underlie several techniques that have been and are used, promoted and trained, especially during the initial stage of interaction. This aim originates from a more general goal to advance the evidence-based management thinking in sales, by focussing research attention on the selling process itself. However, it is impossible to cover all selling process tools considered actionable by praxis. Therefore, this research focusses on the similarity-attraction effect during initial sales encounters between buyers and sellers.

1.3 Theoretical aim

Evans (1963) influenced sales research by postulating that the dyad between the seller and the buyer is of the essence in explaining sales encounters, as opposed to specific traits of behaviour of the salespeople themselves. The pivotal argument presented for this dyadic approach is perceived similarity (Evans, 1963; Davis and Silk, 1972), as this is indicated to influence future interaction and, by definition, is a result of the dyad between a seller and a buyer. The hypothesis that perceived similarity influences the perception of expertise, trustworthiness, and likability is referred to as the perceived similarity hypothesis. The inference that future interaction is influenced by perceived similarity is termed the extended perceived similarity hypothesis (Capon, 1975).

Over the years, a number of studies have investigated different aspects of the similarity-attraction effect in the context of buyer-seller relationships (Evans,
Despite this constant attention, no undisputed role of the similarity-attraction effect in (initial) sales encounters has surfaced. An extensive meta-study shows that the outcomes do not result in a consistent causal relationship between similarity and sales performance (Lichtenthal and Tellefsen, 2001). Throughout this research, it is indicated that perceptions of deep similarity by buyers consistently resulted in less ambiguous outcomes than surface similarity. These outcomes are, again, partly contradictory to the outcomes of later studies (Luoh and Tsaur, 2009; Gaur et al., 2012).

In psychological research, the notion of similarity influencing human behaviour in different social and organisational contexts, is both widely accepted as a longstanding concept (Festinger, 1954; Oren et al., 2012; Montoya and Horton, 2014). Most research on similarity and attraction is seated in social psychology (Montoya et al., 2008; Ellegaard, 2012). Did research on the similarity-attraction effect in social psychology find its way into marketing and sales literature? Are these concepts and findings valid in a business-to-business environment?

Given that the relationship between sellers and buyers differs immensely (Blocker, Houston, et al., 2012) from other types of association, this can account for the observation that current marketing research does not unambiguously explain the role of the similarity-attraction effect (Lichtenthal and Tellefsen, 2001) and, therefore, further research is warranted.

This study focusses on the role of the similarity-attraction effect in the early stages of the relationship between sellers and buyers in a business-to-business context. The main argument in favour of this is: the focus of practitioners and sales trainers on techniques that are based on the extended similarity hypothesis (Capon, 1975) during initial encounters (DeCormier and Jackson, 1998), combined with the notion that the role of similarity changes over time. During the initial stage, there is not enough information to adequately assess a supplier (Dekker and Wright, 2012). As a result, buyers make inferences based on personal perceptual cues.
(Wood, 2004), but also inferences regarding organisational trustworthiness (Geigenmüller and Greschuchna, 2011) and the value of the anticipated future interaction (Doney and Cannon, 1997; Dekker and Wright, 2012). Therefore, the focus of this thesis is limited to the role of the similarity-attraction effect during initial sales encounters, between salespeople and procurement professionals.

1.4 Methodological aim

Apart from developing a research design that is capable of uncovering the role of the similarity-attraction effect in initial business-to-business sales encounters, another contribution to research practice is identified. A critical view on the function and execution of the literature review is presented. This is referred to as the methodological aim of this research project (Wallace and Wray, 2011).

In marketing research, most literature reviews can be qualified as narrative reviews (Grant and Booth, 2009). A criticism regarding this type of research is that many of these reviews are heavily biased, and researchers even differ in their conclusions while using the same articles (Randolph, 2009). A contending approach is the systematic literature review (Grant and Booth, 2009), which is encouraged by those that advocate an evidence-based style (Tranfield et al., 2003). These reviews are narrative in nature, but also stipulate search terms, deploy exclusion and inclusion criteria, and explicitly assess the quality of the literature included (Cronin et al., 2008). Both systematic literature reviews, as well as a narrative literature review, have been employed and the use of both methods is discussed.

1.5 Aims and objectives

Aims

The primary aim of this thesis is understanding the role of the similarity-attraction effect in initial business-to-business sales encounters. Practitioners hold that sales outcomes are positively related to similarity assessments by buyers. Therefore, actionable tools are developed, trained, and used to enhance the
similarity perceptions of buyers. However, current research on this topic is not conclusive. Adhering to an evidence-based sales perspective leads to the conclusion that there is not sufficient evidence to support the merit of these actionable tools.

A secondary, more methodological, aim is identifying the usability of systematic literature reviews in marketing research. Most marketing studies employ narrative literature reviews. This type of review has certain limitations, which can partly be mitigated by adopting a systematic literature review approach. Although strongly advocated by those that promote an evidence-based approach, to date there are very few published examples or rules of thumb that help marketing researchers choose between these two review approaches in marketing research.

Objectives

Provide an overview of the social psychology literature on the similarity-attraction effect, using a systematic literature review approach;

Deliver an overview of the marketing literature on the similarity-attraction effect, using a systematic literature review approach;

Contrast social psychology literature and marketing literature on positions, schools of thought, and recent developments on the subject of the similarity-attraction effect;

Provide an overview of the academic literature concerning the constructs and causal relationships that drive future interaction in initial business-to-business sales encounters, using a narrative literature review approach;

Propose a conceptual model that establishes the way in which these constructs and their relations drive future interaction; and specify the impact of similarity on future interaction;

Empirically test the conceptual model in the Netherlands and analyse the data, using variance-based structural equation modeling;
Discuss the impact of the outcome of the empirical research on the justification of the use of actionable tools that aim to enhance similarity perceptions of buyers.

1.6 Structure of the thesis

This thesis starts with a synthesis of literature in social psychology and marketing on the topic of the similarity-attraction effect. After identifying new research avenues from within social psychology, a preliminary conceptual framework is presented at the end of chapter two. In chapter three, this preliminary framework, depicting the similarity-attraction effect in buyer-seller relationships, is situated in initial business-to-business sales encounters. The theoretical aims and objectives are redefined, based on the findings of the literature review, and an augmented conceptual framework is presented. Next, in chapter four, the exploratory quantitative methodology, respondent driven sampling, survey based data collection, data analysis methods, validity, reliability, and ethical concerns are discussed. In chapter five, the outcomes of the research project are presented. Chapter six consists of a discussion, and contrasts the results with extant literature. In chapter seven, a conclusion is provided, and theoretical and methodological contributions, as well as managerial implications, are posited.
Chapter 2

Similarity and attraction:

In this chapter, the core concept under investigation - the similarity-attraction effect - is researched and defined on the basis of existing knowledge. This chapter takes the approach of the systematic literature review.

2.1 Introduction

Business research suffers from specialization (Denyer and Tranfield, 2009), in that researchers from one field do not know what is known in adjacent fields. The primary causes of this include too much focus on hypes and a lack of systematic research synthesis (Rousseau et al., 2008). In order to verify whether research regarding perceived similarity in the field of marketing is hampered or not, two systematic literature reviews are provided.

The first review is within the field of psychology, as this is where the notion of the role similarity between people originates (Cronbach, 1955), and the majority of research on the topic is situated. The second review focusses on marketing literature.

Based on the outcomes of the two reviews, a short discussion is given. Before the results of both reviews are presented and a discussion is provided, further justification of the chosen approach is rendered, followed by an overview of the requirements of a systematic literature review in general. Both reviews start with a description of the procedure followed.

2.1.1 Systematic literature review

A literature review aims to identify, understand, and synthesise what is already known about a topic (Wallace and Wray, 2011). Although there are many typologies of review (Grant and Booth, 2009), four different overarching approaches are identified (Tranfield et al., 2003; Cronin et al., 2008): a narrative literature review, a systematic literature review, a meta-analysis, and a meta-
synthesis. The latter two are reviews of both the research output, as well as the datasets that underpin these findings. The term meta-analysis is used for reviewing quantitative research data. Reviewing qualitative datasets of prior studies is deemed meta-synthesis (Cronin et al., 2008). These approaches can be considered as a research approach, rather than a literature review, supporting a research project (Wood, 2004; Cronin et al., 2008).

The most common literature review in business research is the narrative review (Hart, 1998; Rousseau et al., 2008). The field of marketing is no exception (Gabbott, 2004). Hart defines this type of literature review as:

“[...] the selection of available documents (both published and unpublished) on a topic, which contains information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research proposed.” (Hart, 1998: 13).

If the criteria for selection and the particular standpoint are not explicit, it is not possible to assess whether a review is biased or not (Rousseau et al., 2008). Therefore, it lacks the rigour that defines scientific work (Denyer and Tranfield, 2009). On the other hand, it has also been recognised that there is a trade-off between rigour and relevance (Grant and Booth, 2009).

A systematic literature review is defined as “[...] a systematic, explicit, comprehensive, and reproducible method of identifying, evaluating and synthesising the existing body of completed and recorded work.” (Okoli and Schabram, 2010: 1). Evidence-based medicine resulted in the development of a standard approach for systematic literature reviews during the 1990s (Tranfield et al., 2003). This approach has since been advocated by researchers and practitioners that fit within the evidence-based management paradigm (Tranfield et al., 2003; Rousseau et al., 2008; Denyer and Tranfield, 2009; Okoli and Schabram, 2010). Although it is not disputed that narrative reviews can be systematic and comprehensive, and can strive to accomplish the same goal
(Okoli and Schabram, 2010), explicitness of the method makes it more reproducible, mitigates biases and enhances validity and reliability (Denyer and Tranfield, 2009).

As this study does not aim to analyse existing primary data of research conducted by others, meta-analysis and meta-synthesis are not considered to be appropriate approaches. Although a narrative approach would be in line with current dissertations in the field of marketing, the review regarding perceived similarity takes a systematic literature review approach. In order to identify differences and communalities concerning the understanding of the concept of the similarity-attraction effect similarity in both marketing as well as psychology, a two-step method is deployed. Firstly, two separate systematic literature reviews are conducted, followed by a comparison of the synthesised outcomes of both reviews.

2.1.2 Systematic literature review procedure

Both reviews are executed according to the four-step procedure as proposed by Okoli and Schabram (2010), that consist of planning, selection, extraction, and execution. During the planning phase, the review goal and the location of the literate are defined. Also, the databases used are stipulated (Bardauskaite, 2014). Next, a selection of articles is deducted, using explicit inclusion and exclusion criteria, based on quality and relevance (Cronin et al., 2008). The extraction phase encompasses the systematic review of the selected articles on a number of specified themes. Lastly, in the execution phase, the information gathered is synthesised and reported (Okoli and Schabram, 2010; Bardauskaite, 2014).

2.2 Similarity and attraction in social psychology

In this part, perceived similarity and its relation with attraction within the realm of social psychology is systematically reviewed. Firstly, an account of the planning and selection phase are provided, followed by a descriptive analysis of the articles
under review. Subsequently, the constructs of similarity and attraction are addressed, followed by a closer look at the causal relationship between the two.

2.2.1 Review procedure

Planning

The aim of this review is to provide an overview of the robustness and consistency of the relationship between perceived similarity and attraction, identify competing underlying explanations and possible mediating or moderating phenomena. The rationale behind this is to juxtapose this overview with the notions that underpin marketing and sales research regarding similarity and attraction.

Initial review of work on perceived similarity in sales showed that the majority of these studies is based on the extended perceived similarity hypothesis (Capon, 1975), which, in turn, stems from the similarity-attraction hypothesis (Byrne et al., 1967). Further research indicated that the larger part of the similarity-attraction research sits in the field of social psychology.

It is stated that the similarity effect is one of the most extensively researched phenomena (Montoya and Horton, 2014) in this field of research. Social psychology can be defined as researching “how, given the native propensities and capacities of the individual human mind, all the complex mental life of societies is shaped by them and in turn reacts upon the course of their development and operation in the individual.” (McDougall, 2003: 18).

Databases used for searching and retrieving the articles under review are Google Scholar in combination with TiUfinder, provided through Tias Business School; the EBSCO databases as provided by Bradford School of Management; and the database search system of the Open University in the Netherlands.
Selection

The finding that the vast majority of similarity-attraction research is situated in social psychology, is combined with the quality criterion of having a notation in the Journal Citation Reports (JCR) of Thomas Reuters. The subject category 2013 Social Psychology of the JCR Social Science Edition comprises sixty-one journals.

A first search in Google Scholar (using “perceived similarity” AND Byrne, combined with “assumed similarity” AND Byrne) accumulated to over three thousand articles. Therefore, a more narrow, full text, search was conducted using “similarity-attraction hypothesis”, under the assumption that significant studies, relevant for this research, will refer to it. As this reasoning might be flawed, the articles found were skimmed for often cited articles, that were not identified in the initial search. This resulted in the addition of seven articles (Table 1), specifically those earlier than the conception of the term "similarity-attraction hypothesis". At this stage a total number of 103 articles where identified.

Table 1: List of added articles based on citations in initial set of articles

<table>
<thead>
<tr>
<th>Article</th>
<th>2013 Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoffman, L. R. (1958) Similarity of personality: a basis for interpersonal attraction? Sociometry 300-308.</td>
<td>N/A</td>
</tr>
<tr>
<td>Sunnafrank, M. and Miller, G. (1980) On the ephemeral nature of the relationship between attitude similarity and interpersonal attraction during initial encounters.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
A full text search was used as a second relevance check, in order to identify articles that cite the similarity-attraction, but offer no empirical or conceptual contribution to the subject. All abstracts were analysed and the articles were skimmed. Resulting in the exclusion of twenty-two articles. Taking this exclusion criterion into account, eighty-one articles were selected for extraction and execution. QDA Miner lite was used during the extraction phase. Final set of articles used for the review, is indicated in the references.

Table 2: Distribution of included social psychology articles per journal

<table>
<thead>
<tr>
<th>Journal</th>
<th>No. of articles</th>
<th>Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Personality and Social Psychology</td>
<td>16</td>
<td>5.510</td>
</tr>
<tr>
<td>Journal of Social and Personal Relationships</td>
<td>9</td>
<td>1.080</td>
</tr>
<tr>
<td>Personality and Social Psychology Review</td>
<td>6</td>
<td>7.545</td>
</tr>
<tr>
<td>Journal of Social Psychology</td>
<td>5</td>
<td>0.711</td>
</tr>
<tr>
<td>European Journal of Social Psychology</td>
<td>4</td>
<td>1.779</td>
</tr>
<tr>
<td>International Journal of Intercultural Relations</td>
<td>4</td>
<td>1.216</td>
</tr>
<tr>
<td>Journal of Personality</td>
<td>4</td>
<td>2.935</td>
</tr>
<tr>
<td>Personality and Social Psychology Bulletin</td>
<td>4</td>
<td>2.515</td>
</tr>
<tr>
<td>Basic and Applied Social Psychology</td>
<td>3</td>
<td>0.659</td>
</tr>
<tr>
<td>Small Group Research</td>
<td>3</td>
<td>1.155</td>
</tr>
<tr>
<td>Advances in Experimental Psychology</td>
<td>2</td>
<td>4.556</td>
</tr>
<tr>
<td>Group Processes Intergroup Relations</td>
<td>2</td>
<td>1.468</td>
</tr>
<tr>
<td>Personal Relationships</td>
<td>2</td>
<td>1.413</td>
</tr>
<tr>
<td>Political Psychology</td>
<td>2</td>
<td>1.771</td>
</tr>
<tr>
<td>Asian Journal of Social Psychology</td>
<td>1</td>
<td>0.466</td>
</tr>
<tr>
<td>British Journal of Social Psychology</td>
<td>1</td>
<td>1.505</td>
</tr>
<tr>
<td>Journal of Applied Social Psychology</td>
<td>1</td>
<td>0.747</td>
</tr>
<tr>
<td>Journal of Community &amp; Applied Social Psychology</td>
<td>1</td>
<td>0.880</td>
</tr>
<tr>
<td>Journal of Individual Differences</td>
<td>1</td>
<td>0.944</td>
</tr>
<tr>
<td>Journal of Language and Social Psychology</td>
<td>1</td>
<td>0.872</td>
</tr>
<tr>
<td>Personality and Individual Differences</td>
<td>1</td>
<td>1.861</td>
</tr>
<tr>
<td>Sex Roles</td>
<td>1</td>
<td>1.698</td>
</tr>
</tbody>
</table>
2.2.2 Descriptive analysis

The earliest work taken into account for review dates from 1950 (Festinger) and three articles (Burr et al., 2014; Freddi et al., 2014; Montoya and Horton, 2014) are published in 2014. In total seventy-three articles are published between 1970 and 2014. During that time, there has been no period in which zero significant articles on this subject were published. There is a significant rise in the number of articles, which, most probably, can be explained by the rate of growth of publications in general. But it can also be concluded that the relationship between similarity and attraction has received constant research attention.

![Figure 1: Distribution of included social psychology articles per five-year period from 1970 to 2014](image_url)

When categorising the journals containing the respective articles in four quartiles, based on the impact factor ranking, it is possible to see whether more research attention is given to the subject in top tier journals, or not. Although there is no clear ascending or descending pattern, most articles (40%) are published in journals with the highest impact factor.
Q1 = journals ranked 1-15 in the 2013 JCR Social Science Edition; Q2 = journals ranked 16-30; Q3 = journals ranked 31-45; Q4 = journals ranked 46-60.

Figure 2: Distribution of included social psychology articles based on impact factor

The final set of articles under review consists of three literature reviews (Byrne et al., 1967; Simons et al., 1970; Arasaratnam, 2013), three meta-analyses (Kallinen and Ravaja, 2004; Montoya et al., 2008; Montoya and Horton, 2013), and thirteen conceptual papers. The remainder of the articles are empirical studies. With the exception of the study of Burr et al. (2014), all empirical studies employ quantitative methods. All quantitative studies use surveys, experiments, or a combination of the two.

The units of analysis in exactly half of the sixty-two empirical studies, were students. In numerous studies, any rationale for choosing a student sample is lacking. Others have studied students in their natural environment - students living together, for instance (Newcomb, 1978), or during coursework (Sunnafrank and Ramirez, 2004; Emery et al., 2013). The percentage of students studies is higher before the turn of the century, than after.

Another group of studies provide comparable samples and contain studies in the field of similarities between nationals or groups of different cultural backgrounds (e.g. van Oudenhoven and de Boer, 1995; Osbeck et al., 1997; Munniksma et al.,
A third group focuses on friendship and romantic relations (Morry, 2003; Barelks and Barelks-Dijkstra, 2007; Selfhout et al., 2010). Other examples of samples are: walking groups (Shapcott et al., 2006); US Air Force reserve officers (Davison and Jones, 1976); volunteers (Van Vianen et al., 2008); and Dutch industrial training groups (Moran, 1966).

2.3 Conceptualisation of the similarity-attraction effect

After addressing the various terms affiliated with similarity, and defining attraction and its components, a conceptualisation of the relationship between similarity and attraction given. Next, the influence of interaction and relevance are introduced, followed by an explanation of the attraction-similarity effect. This review ends by directing attention to concerns regarding the complexity of social context and its consequences.

2.3.1 Similarity

In the literature, an array of types of similarity is used: actual similarity and perceived similarity (Montoya et al., 2008; Jowett and Nezlek, 2012; Morry et al., 2013); genetic similarity (Rushton, 1989; Caprara et al., 2007; Magee and Smith, 2013); attitudinal similarity (Feldman-Summers, 1977; Michinov and Michinov, 2001; Montoya and Horton, 2014); trait similarity (Kenny et al., 1994; Dryer and Horowitz, 1997; Born and Taris, 2010); dissimilarities (Rosenbaum, 1986; Yeong Tan and Singh, 1995; Burr et al., 2014); deep and surface similarity (Lease et al., 2003; Wheeler et al., 2007; Selfhout et al., 2010); in-group, intergroup and out-group similarity (Hoffman, 1958; Castelli et al., 2009; Stasiuk and Bilewicz, 2013) and general or overall similarity (Rushton, 1989; Tidwell et al., 2013; Freddi et al., 2014).

Besides this set of constructs, that all have different meanings, several synonyms are also used. An example is assumed similarity (Byrne, 1969; Chen and Kenrick, 2002) instead of perceived similarity, and personality similarity, as a synonym for attitudinal or attitude similarity (Robins and Boldero, 2003; Boer et al., 2011).
The terms used can be reduced to four dimensions of similarity and one overarching construct. Actual and perceived similarity; trait and attitudinal similarity; deep versus surface similarity; and individual and group similarity can be seen as distinct dimensions, and general similarity is the overarching construct.

Similarity of physical attractiveness, activities, or hobbies are neglected as most studies in this area did not find similarity and attraction to correlate (Montoya et al., 2008). Also, genetic similarity (Rushton, 1989) is not taken into account, as it accounts for the formation of relationships, but not for the attraction in these relationships (Montoya et al., 2008).

**Actual and perceived similarity**

Actual similarities refer to similarities that truly exist. For instance, having the same gender (Feldstein et al., 2001) or race (Avery, 2004), or a similar score on a personality factor like openness (Roccas and Brewer, 2002). Perceived similarity represents to what extent one person perceives themselves as similar to another person (Chen and Kenrick, 2002).

This results in four possible situations regarding similarity in a dyad: there is actual similarity, but it is not perceived similarity; there is no actual similarity, and it is not perceived; there is actual similarity and it is perceived; and there is no actual similarity but it is perceived. Much research has been done in social psychology to study the effects of actual in comparison to perceived similarity, and the relationship with attraction (Montoya et al., 2008).

**Trait and attitudinal similarity**

In similarity-attraction literature, a distinction is made between traits and attitudes. Traits are fairly unambiguous characteristics, like age, sex, race, education, but also company or job tenure (Valenti and Rockett, 2008; Heine et al., 2009). Attitudinal similarity refers to similar values, opinions, beliefs, and attitudes (Byrne, 1969; Brown and Lopez, 2001).
Deep versus surface similarity

Deep versus surface similarity refers to the covertness or overtness of the aspects that are used for similarity assessment, and the effort involved in making the assessment. Although the majority of traits can be considered a means to ascertain surface similarity, and attitudes are commonly associated with deep similarity (Avery et al., 2008), there are, nevertheless, traits that are less overt and attitudes that are more readily detectable.

Individual and group similarity

Social comparison is both a purely individual process (Byrne, 1969), as well as a process located in the context of groups (Billig and Tajfel, 1973). Such assessment results in not only similarity between two subjects, but also complex processes of social comparison between the self and groups. Three different types of similarity are noted: intergroup similarity (Billig and Tajfel, 1973), in-group similarity (Roccas and Brewer, 2002), and out-group similarity (Vos and van der Zee, 2011).

General similarity

General similarity stands for a more generic approach to describing and assessing the role of similarity in the social comparison process (Freddi et al., 2014). It is also referred to as non-componential similarity analysis (Kenny et al., 2006). Researchers that use this construct do not attempt to identify specific items that are used for this comparison, but only assess the overall similarity. This approach is only suitable for addressing perceived similarity, as actual similarity, by definition, entails comparing specifics (Tidwell et al., 2013).
**Similarity and dissimilarity**

Similarity and dissimilarity (Rosenbaum, 1986) are not identified as a dimension that helps to understand the construct similarity, but as two sides of the same coin (Burr et al., 2014). When similarity increases, dissimilarity declines, and vice versa. Looking at similarity and dissimilarity does help to picture the complexity of the construct similarity. Whether one differs or not depends upon the level of comparison chosen (Burr et al., 2014). Female and male are dissimilar based on gender, but, at the same time, both are human when species determination is considered the lens.

**2.3.2 Attraction**

With the exception of studies of Michinov and Monteil (2002) and Montoya and Horton (2014), none of the articles under review provide a definition of attraction. Instead of defining attraction, it is mentioned how attraction is measured (e.g. a 100-points scale that measures “favourableness of feelings” (Byrne, 1969); three items: liking, liking cooperation, and intended future cooperation (Sunnafrank and Ramirez, 2004); the interpersonal judgement scale (Palmer and Kalin, 1985)). Also, relationship satisfaction is referred to as a measure of attraction (Morry, 2007).

Michinov and Monteil (2002) differentiate between *social attraction*, which is referred to as liking (Byrne, 1969; Palmer and Kalin, 1985; Montoya and Horton, 2014), and *intellectual attraction* which is related to expertise (Gardner et al., 2013) and respect (Simons et al., 1970). Furthermore, Michinov and Monteil (2002) assert that similarity-attraction research is hampered in that no distinction is made between the affective, cognitive, and behavioural components of attraction.

Montoya an Horton (2014) reemphasise the importance of distinguishing between the affective, cognitive, and behavioural components of attraction. They define attraction as a person's immediate and positive affective and/or behavioural
response to a specific individual. A response that is influenced by the person’s cognitive assessments:

“By this thinking, attraction has two valenced components - an affective component that reflects the quality of one’s emotional response toward another and a behavioural component that reflects one’s tendency to act in a particular way toward another.” (Montoya and Horton, 2014: 60).

2.3.3 Explaining the similarity-attraction effect

The similarity-attraction hypothesis (Byrne, 1971) states that similarity attracts, irrespective of other main effects (Selfhout et al., 2010). Though it is often stated that the similarity-attraction relationship is one of the most robust findings in social psychology (van Oudenhoven and de Boer, 1995; Heine et al., 2009), different theoretical underpinnings do not fully explain empirical findings (Montoya and Horton, 2014). In this section, competing underlying theories are presented. Furthermore, interaction, relevance, social context, and their influence on the similarity-attraction effect are addressed.

Dominant theories

The most dominant explanation for this effect is the reinforcement theory (Byrne, 1969, 1971). It is theorised that similarity increases attraction (Selfhout et al., 2010) through reinforcement. The reinforcement theory stems from classical conditioning and consequently infers that the relationship between similarity and attraction is not influenced by cognitive processes (Montoya and Horton, 2013).

An earlier and also much cited account is Heider’s balance theory (Moghaddam and Stringer, 1988; Michinov and Michinov, 2011) states that people strive for agreement (McCaul et al., 1995), and, when people have similar attitudes, the chances for agreement are enhanced.

Recently, Montoya and Horton (2014) proposed the two-dimensional model of attraction, asserting that all similarity effects are fully mediated by two constructs: perceived willingness and perceived capability. In short: attraction is determined
by answering the questions “how “good” is he or she and does he or she like [enough to help] you?” (Montoya and Horton 2014: 77). Moreover, it is important to distinguish between affective and behavioural attraction.

**Competing theories**

The most cited and researched theory that offers an alternative explanation of the relationship between similarity and attraction is Rosenbaum’s (1986) dissimilarity-repulsion theory. It entails that similarity does not attract, but that dissimilarity creates distancing (Chen and Kenrick, 2002). As stated before, dissimilarity is the other side of the similarity coin (Burr et al., 2014), and, in a study by Tan and Singh (1995), it is concluded that judging by means of dissimilarities is mainly explained by immaturity of cognitive processes (e.g. studies with children and young adolescents provide evidence for this theory).

A second contradicting theory is the complementarity hypothesis (Davison and Jones, 1976; Morry, 2005), which stipulates that opposites attract, has found little support (Davison and Jones, 1976). A third disputing model is Tajfel’s social identity theory, that proclaims that groups will be attracted to other groups if they differ in a number of aspects (van Oudenhoven and de Boer, 1995).

**Peripheral theories**

Other theories that are cited, but rarely underpin empirical similarity-attraction studies, are Rokeach’s belief congruence theory (Moghaddam and Stringer, 1988; Chen and Kenrick, 2002); Festinger’s (1954) social comparison theory, with the exception of a study by Feather (1994); Homans’ social exchange theory (Katz et al., 2004; Montoya and Horton, 2014); implicit egotism (Heine et al., 2009; Montoya and Horton, 2014); predicted outcome value theory (Sunnafrank and Ramirez, 2004); dissonance theory (Palmer and Kalin, 1985; Montoya and Horton, 2013); uncertainty reduction theory (Morry, 2005; Selhout et al., 2010); and the information processing perspective (Montoya and Horton, 2013).
The influence of interaction

Whether interaction has taken place or not influences the relationship between similarity and attraction (Rosenfeld and Jackson, 1965; Sunnafrank and Ramirez, 2004; Montoya et al., 2008). Also, depending on the amount of interaction, the effect of actual and perceived similarity may vary (Montoya et al., 2008). Much experimental similarity-attraction research employs the use of a bogus stranger (Byrne, 1969; Palmer and Kalin, 1985). In these studies, actual similarity has a strong effect on attraction (Montoya et al., 2008).

However, this effect diminishes when subjects have had short interaction and is no longer significant in existing relationships. With perceived similarity, a reverse pattern is emerging (Montoya et al., 2008). In a naturally occurring context, there are numerous situations where the person making the social comparison does have information about the other without ever having met the person (Sunnafrank and Miller, 1980). Therefore, it is disputable whether in situ comparisons without interaction rely more on actual similarity than on perceived similarity (Selfhout et al., 2009). It is concluded that perceived similarity is a more significant antecedent of attraction in social context.

Similarity and relevance

When introducing a utilitarian approach, it is noted that not all components that can be used as a source for comparison (Kenny et al., 2006) are relevant for assessing attraction (Gerard and Hoyt, 1974; Wagner, 1975; Frank and Brandstätter, 2002; Montoya and Horton, 2014). Behavioural attraction is especially guided by interaction goals and the subsequent similarity relevance (Michinov and Monteil, 2002).

Interdependence

How dependent people are upon each other, and whether this interdependency is balanced or not, influences the similarity-attraction effect (Magee and Smith, 2013). Perceived interdependency can originate from both circumstance and
differences in self-construal. People differ to the extent in which their self is construed independent from relationships or not (Morry et al., 2013). However, it is not yet clear whether interdependency influences attraction or whether attraction influences interdependency (Jowett and Nezlek, 2012).

### 2.3.4 Questioning the direction

In general, researchers adhere to the paradigm that similarity causes attraction (Quist and Crano, 2003). However, this stance is not undisputed (Newcomb, 1978; Sunnafrank and Miller, 1980; Morry, 2007).

An explanation for this reverse causality, rooted in Heider’s balance theory (Moghaddam and Stringer, 1988), is that people in an existing relationship strive for balancing (Morry, 2003; Michinov and Michinov, 2011). If one likes the other person, there is a tendency to perceive the other as similar, because this perceived similarity serves as an argument for the liking experienced (Morry, 2003). As a result, this self-enforced perceived similarity does not always have to be accurate (Barelds and Barelds-Dijkstra, 2007). A number of empirical studies support this attraction-similarity hypothesis (Dryer and Horowitz, 1997; Morry, 2003, 2005, 2007; Munniksma et al., 2012).

An alternative supposition is that similarity and attraction are both part of a system (Newcomb, 1978). When the two constructs are seen as mutually dependent, it is deduced that, if one changes, it is imperative that the other changes too. However, in an empirical study by Morry et al. (2013) this view is dismissed, despite the fact that other findings do support this bidirectional, or recursive, view (Selfhout et al., 2010).

### 2.3.5 The similarity-attraction effect in social context

It is stated (Neuberg et al., 1994) that paradigmatic solitary research is problematic if the social context is ignored. It is critical to take the natural impression formation situation into account, because other mechanisms might be
at work. Theories of how relationships emerge are often elusive (Robins and Boldero, 2003).

One such complicating factor to consider is prototypical similarity (Hogg et al., 1993; Hogg, 1995), leading to depersonalised attraction, based on perceived in-group or out-group similarity. A second factor indicated in the similarity-attraction literature is that when people have to perform a task, diverse groups perform better and no differences in attraction are reported, although differences in similarity are detected (Hoffman and Maier, 1966). A third factor (Robins and Boldero, 2003) is that people not only use their actual-self for comparison, but their ought-self (based on duties and obligations), and their ideal-self (based on aspirations and wishes).

Other factors identified are: attitude change caused by attraction (Romer, 1979); self-meaningfulness (Leitner, 1983); dogmatic dispositions (Palmer and Kalin, 1985); level of self-categorisation (Abrams and Hogg, 1987); and various processes caused by gender differences (Van Zalk et al., 2011).

It is not intended that an exhaustive list of factors or mechanisms is provided, that, all combined, fully explain attraction. It is argued that, depending on one theory alone is counterproductive, due to other mechanisms (Robins and Boldero, 2003) and social context (Michinov and Michinov, 2011).

2.3.6 Overview

The consensus in the social psychology literature under review is that perceptions of similarity lead to attraction (Byrne, 1971). The unidirectional explanation of the relationship between similarity and attraction is, however, not undisputed (Morry, 2007). In context, actual similarity is a less significant predictor, than perceived similarity (Montoya et al., 2008). Although, people identify others as similar or dissimilar to themselves based on an array of components, only relevant attributes for a specific context are taken into account, leading up to a contextual perception of similarity (Michinov and Monteil, 2002).
Two main explanations for the similarity-attraction effect drive social psychology research: classical conditioning, based on Byrne’s reinforcement theory (Byrne, 1971), and Heider’s balance theory (Michinov and Michinov, 2011). A more current view holds that similarity assessments drive behaviour and attitudes through cognitive processes (Montoya and Horton, 2014).

Considering this, another difference is apparent: defining attraction as a construct that approximates or resembles likability (Byrne, 1969; Sunnafrank and Ramirez, 2004), or as a process comprising cognitive, attitudinal, and behavioural components (Michinov and Michinov, 2011; Montoya and Horton, 2014).

Though the similarity-attraction effect is one of the most robust findings in social psychology (van Oudenhoven and de Boer, 1995), other mechanisms and contexts should be considered when explaining interaction between people (Robins and Boldero, 2003; Michinov and Michinov, 2011). Besides other mechanisms and circumstances, the elements of previous interaction (Montoya et al., 2008) and interdependence (Magee and Smith, 2013) are emphasised.

2.4 Similarity and attraction in marketing

The results of a systematic literature review in marketing and sales literature are presented. As with the social psychology systematic literature review, planning and selection are expounded, and a descriptive analysis of the literature is given. Then, an overview of current thinking on buyer-seller similarity is provided.

2.4.1 Review procedure

Planning

The aim of this systematic literature review is to provide an overview of research and opinion regarding buyer-seller similarity and its impact on dependent variables that are relevant in sales, in order to compare the outcomes with the systematic literature review in social psychology.
For this review, mainly EBSCO Business Source Complete and Science Direct were used to retrieve the articles, found in an initial search, using Google Scholar. Articles that were irretrievable through EBSCO Business Source Complete or Science Direct, were acquired through the library services of HZ University of Applied Sciences, and the databases of the Dutch Open University.

Selection

The list of Marketing-related journals of the ABS Academic Journal Quality Guide is used as a quality inclusion or exclusion criterion. Even though similarity is given substantial research attention in Marketing, the number of studies is considerably smaller than in social psychology. The inclusion relevance criterion consisted of two phases: first identifying all articles that contained the term “perceived similarity”, then excluding all articles that are not situated in the context of buyer-seller relationships. In the first phase 201 grade four articles; 130 grade three articles; 132 grade two articles; and 20 grade one articles. Lastly, ABS unlisted articles are added, based on citing within the subset of included articles.

Examples of other streams of research in marketing that utilise the similarity construct are perceived similarity of products, services, and brands (Balasubramanian and Cole, 2002; Biswas et al., 2014); brand extensions (Aaker and Keller, 1990; Swaminathan et al., 2001); online recommendations and source credibility (Cooke et al., 2002; Ludwig et al., 2013), specifically the role of endorsers (Ohanian, 1990; Chou, 2014); similarity of choices (Zemack-Rugar et al., 2012); company similarity as perceived by customer (Bhattacharya and Sen, 2003; Press and Arnould, 2011) similarities between salespeople and sales managers (DelVecchio, 1998); goal similarity (Gao and Shi, 2011); and surface similarity of customers as a criterion for segmentation (Weitz et al., 1986).

When papers that do not focus on buyer-seller similarity are excluded, fifty-nine articles remain. Furthermore, three often-cited articles that were published in journals, that are not itemised in the ABS Marketing list, are added (Evans, 1963;
Tosi, 1966; Davis and Silk, 1972). In total sixty-two articles are used to depict current marketing thinking on buyer-seller similarity.

Table 3: Distribution of included marketing articles per ABS listed journal

<table>
<thead>
<tr>
<th>Journal</th>
<th>No. of articles</th>
<th>ABS Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Marketing Management</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Personal Selling &amp; Sales Management</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Journal of Marketing</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Journal of Marketing Research</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Psychology &amp; Marketing</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Retailing</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Advances in Consumer Research</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Journal of International Marketing</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Marketing Management</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Services Marketing</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>American Behavioral Scientist</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>European Journal of Marketing</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Int. Review of Retail, Distribution &amp; Consumer Research</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Business</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Journal of Business-to-Business Marketing</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Journal of Business Research</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Consumer Research</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Marketing Letters</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sloan Management Review</td>
<td>1</td>
<td>n/a</td>
</tr>
</tbody>
</table>

As in the social psychology literature review, QDA Miner lite is utilised during extraction.

2.4.2 Descriptive analysis

The earliest article included in this review is the seminal paper by Evans (1963), the most current articles are from 2014 (Arndt et al., 2014; Dowell et al., 2014). During the end of the last century, a peak in research is notable. Publications in
the *Journal of Personal Selling and Sales Management* and *Industrial Marketing Management*, which are both sales oriented journals, account for this peak. Together these journals account for twenty-five of the sixty-two articles. The *Journal of Marketing* is the third largest contributor (nine articles). The articles on buyer-seller similarity in the *Journal of Marketing* are more evenly spread over time. Apart from this peak from 1995 to 1999, an increasing number of publications is notable. The articles of this review are marked in the references.

![Distribution of included marketing articles per five-year period](image)

*Figure 3: Distribution of included marketing articles per five-year period*

When looking at research quality by means of ABS list ranking, most articles are shown to be of grade three quality. Grade four and grade two publications are approximately evenly represented. The lowest grade journals only account for one publication (Gaur et al., 2012). As the number of journals lessens per quality category, a reverse pattern would emerge when every journal pays equal attention to the subject of buyer-seller similarity. As this is not the case, it is concluded that buyer-similarity is specifically addressed in high quality marketing journals.
The set of sixty-two reviewed articles comprises sixteen conceptual papers; three literature reviews (Schwepker Jr, 2003; Herbst et al., 2011; Mortensen, 2012); three meta-analyses (Swan et al., 1999; Palmatier et al., 2006; Wood, Boles, Babin, et al., 2008); and forty empirical studies. Of the empirical studies, two studies have a qualitative approach (Gremler and Gwinner, 2008; Patwardhan et al., 2009).

The samples in the empirical studies vary. For instance samples of business to business salespeople (Strutton et al., 1996), dyads in retail (Woodside and Davenport, 1974); and dyads of life insurance salespeople and married couples (Arndt et al., 2014) are used. The number of studies using students as a unit of observation is small (Busch and Wilson, 1976; Jones et al., 1998; Peterson and Limbu, 2009; Jiang et al., 2010) and even criticised (Campbell et al., 1988). The most employed research methods are self-report surveys and experiments.

**2.5 Similarity and attraction in buyer-seller relationships**

Along the lines of the systematic literature review in social psychology, an overview of buyer-seller similarity is provided. Next, the dependent variables depicting attraction are discussed. Then, the relationship between similarity and attraction within the context of the buyer-seller relationship is addressed.
A notable difference between the social psychology literature and the marketing literature is the basic academic orientation in social psychology and the more functional or applied approach of marketing research. Therefore, a last section on managerial implications is added.

2.5.1 Similarity in buyer-seller relationships

When reviewing the marketing literature on similarity, all the dimensions presented in the social psychology review re-emerge: actual and perceived similarity; trait and attitudinal similarity; individual and group similarity; general similarity.

However, there are two exceptions. A dimension that is not discussed in the social psychology literature is the buyer-seller or seller-buyer similarity (Swan et al., 1978). The similarity-dissimilarity dimension is not commonly discussed. The one study that addresses dissimilarity (Dwyer et al., 1998) found that gender dissimilarity in dyads led to higher sales performance. This outcome was not explained by the dissimilarity-repulsion theory. One article (Gaur et al., 2012) cited Rosenbaum’s (1986) seminal work, but did not refer to the dissimilarity-repulsion dimension. As a consequence, the similarity-dissimilarity dimension is omitted, and the buyer-seller and seller-buyer similarity dimension is added.

Actual and perceived similarity

The distinction between actual and perceived similarity is clearly present in marketing literature. There is a consensus that perceived similarity is more important than actual similarity. (Tosi, 1966; Spiro et al., 1977; LaTour et al., 1989; Dion et al., 1995; Patwardhan et al., 2009). A possible explanation for this practically unanimous view is that Evans (1963) already emphasised the importance of perceived similarity by stating that “[…] it is important to note that perceived similarity […] is of greater importance to the sales than true similarity.” (79). Also empirical marketing research (for instance Dion et al., 1995) underpins this axiom.
**Trait and attitudinal similarity**

No explicit distinction between trait similarity and attitudinal similarity is made in the literature under review. Although both types of similarities are used as an operationalisation of similarity. Examples of traits are gender similarity (Dwyer et al., 1998); age similarity (Kang and Hillery, 1998); and personality similarity (Mathews et al., 1972). Examples of attitudinal similarity are studies using general attitudes (Riordan et al., 1977; Fine and Gardial, 1990), status similarity (Crosby et al., 1990), and work attitudes (Smith, 1998).

**Deep and surface similarity**

Although, until recently, not many researchers (Herbst et al., 2011; Gaur et al., 2012) have cited it, Lichtenthal and Tellefsen (2001) clearly distinguish between internal (deep) similarity and observable (surface) similarity. They postulate that the inconsistent research results in similarity sales research are mainly caused by studies using surface similarity operationalisations (like gender and race). Their explanation is that if the information is available and the purchase task at hand is important enough, buyers will try to get an accurate perception of the seller. If not, buyers will stereotype the seller and make inferences accordingly (Lichtenthal and Tellefsen, 2001).

**Individual and group similarity**

According to Coan Jr (1984), similarity is only essential when it reflects co-membership. If not, it does not help build rapport. This is contradicts the position of Lichtenthal and Tellefsen (2001), that stereotypes lead to inaccurate personality judgements. Others state that in-group membership is an explanation for the similarity (Caballero and Resnik, 1986; Smith, 1998; Palmatier et al., 2006). However, the main focus of marketing similarity research is similarity within the dyad, or individual similarity.
**Buyer-seller similarity and seller-buyer similarity**

In general, the buyer-seller similarity literature aims to explain the influence that similarity perception of the buyer has on the effectiveness of the dyad. Fine and Gardial (1990) criticise this one-sided approach, as similarity or dissimilarity perceptions of seller with regards to the buyer, could also influence the effectiveness of a buyer-seller relationship. Even though this topic is underresearched, there are empirical indications that seller-buyer similarity influences the effectiveness of buyer-seller dyads by means of other processes than buyer-seller similarity (Swan et al., 1978; Fine and Gardial, 1990; Henthorne et al., 1992).

**General similarity**

A number of studies explicitly pinpoint a specific similarity attribute. The most frequently researched attribute is gender (Swan et al., 1978; Dion et al., 1997; Dwyer et al., 1998; Jones et al., 1998; Lane, 2000). Other purposefully targeted attributes are: communication style (Williams and Spiro, 1985); race (LaTour et al., 1989; Jones et al., 1998); age (Dwyer et al., 1998; Kang and Hillery, 1998); value similarity (Ang et al., 2000); and incidental similarity, for instance the same date of birth (Jiang et al., 2010).

Conceptual papers discuss similarity from a general perspective, but do not explicitly postulate an overarching “general similarity” construct. There are, however, several empirical papers that employ a measurement scale that is based on the overarching principle of general similarity (Doney and Cannon, 1997; Coulter and Coulter, 2002; Shou et al., 2011).

**2.5.2 Attraction in buyer-seller relationships**

Categorising the outcomes of attraction literature is challenging (Ellegaard, 2012). Consistent with this finding, there is also little consensus in the marketing literature, concerning buyer-seller attraction (Mortensen, 2012). Twenty-six articles mention attraction in relationship with similarity. Of these articles, six
Zimmer and Hugstad (1981) simply postulate that attraction is a synonym for likability, while Caballero and Resnik (1986) state that: “[…] attraction is an attitude, an overall predisposition towards some person, [that] may be conceived as a composite evaluative response based on a number of dimensions, [containing] both cognitive and affective elements […], frequently intertwined and difficult to differentiate.” (18). Campbell et al. (1988) define attraction as a process-related endogenous construct. In line with the multidimensional view of Caballero and Resnik (1986), Hald et al. (2009) hold that attraction is the force that draws buyers and sellers together through social exchange and comprises expected value, trust, and dependence. Ellegaard (2012) describes attraction as a positive attitude, that is closely related to liking, and has cognitive, affective, and behavioural components. But this conceptual paper does not state what these components entail.

A recent literature review (Mortensen, 2012) provides an overview of current thinking with regards to attraction in marketing, and partly focusses on buyers-seller attraction, which is termed: micro attraction. Other levels of attraction are defined as: meso attraction (organisational attraction), and: macro attraction (attractiveness of markets). Based on a review of extant marketing literature, a definition of micro attraction is provided, cited from the work of Harris et al. (2003):

“[… the extent to which relational partners perceive past, current, future or potential partners as professionally appealing in terms of their ability to provide superior economic benefits, access to important resources and social compatibility […].” (Mortensen, 2012: 1217).

Furthermore, Mortensen calls to position attraction as an independent construct, separate from value, trust, satisfaction, commitment, power and dependence. Leigh and Summers (2002) differentiate between task attraction and social
attraction dimensions. A definition of these two attraction dimensions is not provided. Moreover, this distinction is not employed in other studies under review.

2.5.3 The similarity-attraction effect in buyer-seller relationships

When explaining the similarity-attraction effect in buyer-seller relationships the articles under review refer to social psychology, marketing literature, other business literature or a combination of these domains. Although it is common to refer to other related business fields like communications (Zimmer and Hugstad, 1981), human resources management (Dion et al., 1997), negotiation literature (Ang et al., 2000), and management (Dowell et al., 2014), there are no commonalities in the considered articles. Therefore, this review focusses on grounding in social psychology and marketing literature. As in the social psychology literature, the themes influence of interaction, similarity and relevance, and interdependence emerge.

Social Psychology as a reference

Of the sixty-two articles, twenty refer to articles published in the field of social psychology or psychology in general, when addressing the similarity-attraction effect. With the exception of three articles (Jones et al., 1998; Smith, 1998; Ellegaard, 2012), most do not provide an extensive overview of the relevant literature in social psychology.

Many articles (Busch and Wilson, 1976; Caballero and Resnik, 1986; LaTour et al., 1989; Crosby et al., 1990; Strutton et al., 1996; Smith, 1998; Dwyer et al., 1998; Jones et al., 1998; Lichtenthal and Tellefsen, 2001; Jiang et al., 2010; Ellegaard, 2012; Gaur et al., 2012) refer to Byrne’s similarity-attraction hypothesis and the underlying reinforcement theory. Another article by Johnson and Johnson (1972), that is rarely referenced by articles in social psychology, is also used frequently to underpin the Byrnesian explanation of the similarity-attraction effect (Crosby et al., 1990; Bendapudi and Berry, 1997; Doney and Cannon, 1997).
A greater number of articles reference Blau and Homans and their social exchange theory as a theoretical foundation for their research (Webster Jr, 1968; Riordan et al., 1977; Zimmer and Hugstad, 1981; Caballero and Resnik, 1986; Campbell et al., 1988; Dwyer et al., 1998; Hald et al., 2009; Ellegaard, 2012; Mortensen, 2012). In total thirty-four articles use the term “social exchange theory”.

Other conceptual paradigms are sporadically employed to help understand the similarity-attraction effect. For instance, Davis and Silk (1972) introduce cognitive consistency. Social identity theory is also touched upon (Dwyer et al., 1998).

**Marketing literature as a reference**

Over twenty articles refer to the seminal work of Evans (1963). Despite the fact that Evans lacks sound empirical evidence, many articles position this source as an important underpinning of the similarity-attraction effect in buyer-seller relationships. However, there are studies that take a more critical stance (Davis and Silk, 1972; Weitz, 1981; Williams and Spiro, 1985; Fine and Gardial, 1990).

Most empirical studies after the turn of the century refer to the marketing literature (Lane, 2000; Armstrong and Yee, 2001; Coote et al., 2003; Palmatier et al., 2006; Homburg et al., 2009; Hung and Lin, 2013). Frequently used references are Crosby, Evans and Cowles (1990); Morgan and Hunt (1994); Doney and Cannon (1997); and Smith (1998). Of these studies, only Smith (1998) focusses elaborately on similarity effects and provides a thorough discussion of the construct.

**The influence of interaction**

The length or maturity of the relationship and the importance of the similarity-attraction effect is discussed in a number of articles (Busch and Wilson, 1976; Dwyer et al., 1987; Henthorne et al., 1992; McIntyre and Meloche, 1994; Swan et al., 1999; Coulter and Coulter, 2002). In general, the similarity-attraction effect in buyer-seller relationships is deemed most influential during the initial phase of the
relationship (Busch and Wilson, 1976; Dwyer et al., 1987; Henthorne et al., 1992; Coulter and Coulter, 2002). This is, however, not undisputed. It is also held that similarity is more important during later stages of the sales process (McIntyre and Meloche, 1994).

**Similarity and relevance**

Most empirical studies focus on one or more specific dimensions of similarity, either because it is considered relevant, or in order to identify relevant dimensions. An example of concentrating on relevant similarity dimensions is a study by Ang, Leong and Teo (2000), that researches the relationship between similarities in time processing orientation and agreement preferences and adaptability and attitudes towards counterparts during negotiations. An example of identifying relevant dimensions of similarity is a study (Gaur et al., 2012) that tests whether lifestyle similarity, status similarity, and appearance similarity influence satisfaction with a salesperson in a financial services context.

Other studies do not differentiate between dimensions, and measure overall similarity (Coulter and Coulter, 2002; Palmatier et al., 2006; Shou et al., 2011) and expect that when people assess similarity, that relevant dimensions of similarity will influence the overall assessment more than less relevant dimensions. In two studies (Doney and Cannon, 1997; Coote et al., 2003), specific items, both measuring relevant dimensions, as well as overall similarity were combined. In both studies, these scales performed well.

**Interdependence**

Although there is no conceptualisation of the influence of interdependence and the similarity-attraction effect in buyers-seller relationships, a number of articles address the fact that power distribution (Dwyer et al., 1987) influences attraction (Weitz, 1981; Dwyer et al., 1987; LaTour et al., 1989; Smith, 1998; Lane, 2000; Armstrong and Yee, 2001; Hald et al., 2009; Homburg et al., 2009; Herbst et al., 2011).
2.5.4 The direction of the causal relation

Although the paradigm in marketing literature (Evans, 1963; Arndt et al., 2014) is that similarity causes attraction, the direction of this relationship is not undisputed in marketing literature (Davis and Silk, 1972; Spiro et al., 1977; Weitz, 1981). In these papers, it is stated that it is uncertain whether the relationship between similarity and attraction is unidirectional (and if so, what construct influences the other) or circular. Despite these concerns, contemporary research does not address this issue.

2.5.5 The context of buyer-seller relationships

In a free choice situation, people prefer to interact with others similar people (Spiro et al., 1977). For buyers and sellers, a free choice situation equals a lab experiment. For instance, salespeople and buyers represent organizations (Davis and Silk, 1972), people make use of stereotyping and co-membership assessments (Coan, 1984), and cultural differences (Campbell et al., 1988) are to be taken into consideration. A much-stated issue is that the similarity-attraction effect is expected to differ for exchange interactions that are concerned with products versus services (Strutton et al., 1996; Doney and Cannon, 1997; Palmatier et al., 2006; Bharadwaj and Roggeveen, 2008). Therefore, the similarity-attraction effect should be studied in situ (Leigh and Summers, 2002).

2.5.6 Managerial implications

In marketing literature, a number of similarity-attraction effect-based actionable tools are suggested that can be used to enhance sales performance. Two approaches can be identified. Numerous studies contend that similarity perceptions cannot be altered. Other studies assume that perceived similarity can be managed given that an illusion of similarity (Mathews et al., 1972) is more effective than actual similarity.

Studies that treat similarity as a given recommend that sales managers execute a segmentation based on the characteristics of buyers, and allocate sales people
with similar characteristics (Riordan et al., 1977; Zimmer and Hugstad, 1981) and hire those that have similar interests as a large portion of buyers (Gremler and Gwinner, 2008).

Other studies endorse that sales people can be trained to enhance buyers’ similarity perceptions (Dion et al., 1995). Tools suggested are: adapting sales presentations to the cognitive style of the buyer (McIntyre and Meloche, 1994); actively establishing common ground (Doney and Cannon, 1997); verbal and nonverbal mirroring (Peterson and Limbu, 2009; Arndt et al., 2014) through, for instance, adopting speech patterns, mannerisms, and body language (Lichtenthal and Tellefsen, 2001).

### 2.5.7 Overview

On the basis of this systematic literature review of sixty-two marketing articles, it is concluded that perceived similarity is considered more important than actual similarity (LaTour et al., 1989). Furthermore, empirical studies that research deep similarity are more conclusive, than studies that use observable characteristics (Lichtenthal and Tellefsen, 2001). The relevance of similarity dimensions matters, but when measuring overall similarity, empirical results indicate that these scales represent the perceived similarity of these relevant dimensions (Doney and Cannon, 1997; Coote et al., 2003). An important distinction is made between similarity perceptions by buyers or by salespeople (Fine and Gardial, 1990), with the main body of literature focusing on buyers’ similarity perceptions.

There are two incommensurable paradigms regarding attraction: *attraction as a construct* (Mortensen, 2012), and *attraction as a process* (Campbell et al., 1988). When adhering the *attraction as a construct* view, attraction is defined or operationalised in a way that approximates the construct of likability (Zimmer and Hugstad, 1981), which is influenced by (perceived) similarity. *Attraction as a process* can be defined as positive assessment(s) of aspect(s) of another person that results, through cognitive processes, in a positive overall predisposition, that contains attitudinal and behavioural aspects (Caballero and Resnik, 1986). All
articles, including those that do not define attraction, deploy constructs like expertise, power, benevolence, integrity, and likability, in conjunction with similarity, in order to explain outcome variables like trust, commitment, future buying intentions, and relationship quality. Lastly, the assumption that similarity influences attraction and not vice versa has been disputed (Davis and Silk, 1972; Spiro et al., 1977; Weitz, 1981) in the past. No recent support for this stance is present in the selection of articles selected for this review.

Most articles built their argument with references from within the field of marketing. Among those articles most cited, articles from leading journals are overrepresented (Crosby et al., 1990; Doney and Cannon, 1997). These papers do not provide a comprehensive review of literature regarding the similarity-attraction effect in buyer-seller relationships. The similarity-attraction hypothesis (Byrne, 1969) is a commonly used explanation. A contending account for the similarity-attraction effect is social exchange theory (Homans, 1958).

Similarity, and its influence on attraction, is generally stated to be situated in the initial stage of a business relationship. However, this view is not uncontended (McIntyre and Meloche, 1994). Also, the type of sale matters: product or service (Palmatier et al., 2006), and risk involved (Lichtenthal and Tellefsen, 2001). Furthermore, interdependence within the buyer-seller relationship is considered an important moderator.

2.6 The similarity-attraction effect: a synthesis

In this section, a synthesis of the similarity-attraction effect in buyer-seller relationships from a buyer perspective (Fine and Gardial, 1990) is provided, based on both the social psychology literature review, as well as the marketing literature review. Similarity, attraction, the relationship, and moderating variables are discussed, in the context of buyer-seller relationships.
**Similarity**

Although in zero acquaintance situations without any context, actual similarity steers human behaviour (Byrne, 1969), both social psychology (Montoya et al., 2008) and marketing literature (LaTour et al., 1989) agree that this is an artificial situation. *In situ*, perceived similarity is a more significant driver of attraction, than actual similarity. Observable similarity affects attraction when the risk of the exchange is low, and the influence of attitudinal similarity increases when the risk of the exchange is higher (Lichtenthal and Tellefsen, 2001). The effects of similarity perceptions differ for sellers and buyers (Fine and Gardial, 1990).

**Attraction**

Both social psychology literature, as well as marketing literature do not adhere to one conceptualisation of attraction. In social psychology literature and marketing literature, attraction is either implicitly defined by the constructs that are used, attraction is defined as a separate construct that approximates likability, or attraction is defined as a complex process of positive assessments of a person that influence attitudinal or behavioural aspects.

Based on this literature review, it is concluded that defining attraction as a complex process (Campbell et al., 1988), will provide more insight and better explain the phenomenon of the similarity-attraction effect in buyer-seller relationships, than treating attraction as a single construct (Mortensen, 2012) that is similar to likability (Byrne, 1969; Zimmer and Hugstad, 1981; Sunnafrank and Ramirez, 2004).

**Similarity-attraction relationship**

When taking the attraction-as-a-process approach, marketing literature is hampered regarding the position similarity takes in the conceptual models employed. The fact that one person assesses another person as similar by itself is not yet an attitude towards that person. As Montoya and Horton (2014) state,
the similarity effect is mediated by assessments of the other, e.g. perceived capability and perceived willingness, through cognitive processes.

Perceived capability is consistent with the use of the constructs of expertise, power, benevolence, integrity, and, to some extent, adaptive selling captures the construct of perceived willingness in marketing literature. According to Montoya and Horton (2014) attraction is based on the answer to the questions “How good is that person at what I need him or her to do?” and “How willing is he or she to put in the effort necessary?”

This is a utilitarian approach that assumes that people predominantly employ cognitive processes, and is congruent with the notion of task attraction, but excludes social attraction (Leigh and Summers, 2002; Michinov and Monteil, 2002). Therefore, adding the question “How agreeable will our cooperation be?” is required. This resonates with the notion of rapport (Coan, 1984; Gremler and Gwinner, 2008; Arndt et al., 2014). The construct that captures this question is likability (Swan et al., 1999; Armstrong and Yee, 2001; Leigh and Summers, 2002; Wood, Boles, Johnston, et al., 2008).

The set size (e.g. the number of dimensions that are used to assess similarity) does not significantly influence attraction (Montoya and Horton, 2013). This is consistent with the finding that overall similarity assessment of buyers is an accumulation of the relevant similarity dimensions in a specific dyad (Doney and Cannon, 1997; Coote et al., 2003).

Although, in general, it is posited that similarity influences attraction (Evans, 1963; Byrne, 1969; Arndt et al., 2014; Montoya and Horton, 2014), both the direction of the relationship, as well as the assumption that the relationship is unidirectional, are disputed (Davis and Silk, 1972; Spiro et al., 1977; Newcomb, 1978; Sunnafrank and Miller, 1980; Weitz, 1981; Morry, 2007). This is pivotal, as all actionable tools in marketing literature are dependent on the premise that similarity causes attraction. If the relationship is unidirectional, but reverse,
segmentation based on similarities (Riordan et al., 1977) or techniques that aim to enhance similarity (Peterson and Limbu, 2009) are futile.

**Contextual moderating effects**

Besides any perceived risk of exchange (Lichtenthal and Tellefsen, 2001), there are a number of contextual circumstances that have been identified to moderate the similarity-attraction effect in buyer-seller relationships. It is postulated that the similarity-attraction effect changes when the object of exchange is either a service or a product (Strutton et al., 1996; Palmatier et al., 2006). Secondly, cultural differences of both buyer and seller (Campbell et al., 1988) have an impact on how similarities influence attraction. Thirdly, interdependence (Dwyer et al., 1987; Homburg et al., 2002) is identified as a moderating variable.

**2.7 A similarity-attraction framework for buyer-seller relationships**

Based on this synthesis, a conceptual framework is presented which demonstrates that attraction is a complex process, in which positive cognitive assessments lead to intertwined positive attitudinal and behavioural outcomes (Caballero and Resnik, 1986; Campbell et al., 1988). Perceived similarity is identified as one of the cognitive assessments that constitutes the attraction process, but the effects of similarity assessments are mediated by other assessments (Montoya and Horton, 2014), comprising task attraction and social attraction (Leigh and Summers, 2002; Michinov and Monteil, 2002). Task attraction comprises willingness and capability (Montoya and Horton, 2014), which, in the context of buyer-seller relationships, are assessed in the form of benevolence, integrity, power and expertise assessments.
Figure 5: The similarity-attraction effect in buyer-seller relationships
Chapter 3

Initial business-to-business encounters:

This thesis focuses on the role of the similarity-attraction effect between buyers and sellers in initial business-to-business sales encounters. This effect can influence the personal trust (Plank et al., 1999) of buyers in salespeople, and the objective outcome of the initial encounter: future interaction (Crosby et al., 1990). However, this outcome is not solely based on personal trust, but also on organisational trust and product or service trust (Sheth, 1976; Doney and Cannon, 1997; Plank et al., 1999).

A complicating phenomenon is that, during the initial encounter, the sales person not only influences the buyers’ perception of him or herself, but also perceptions of the represented organisation (Geigenmüller and Greschuchna, 2011), and the value that the organisation can deliver (Dekker and Wright, 2012) by means of products and services. Therefore, when researching the role of the similarity-attraction effect in initial business-to-business sales encounters, all three levels of trust should be considered.

After describing the initial sales encounter and its function in the selling process, the constructs involved in the formation of salesperson trust through the similarity-attraction effect are discussed, followed by a discussion on organisational and value trust. Next, a review of the pivotal outcome variable of initial business-to-business sales encounters, future interaction, is provided. This chapter concludes with a conceptual framework, that comprises all relevant constructs and the hypotheses that drive the empirical study.

3.1 Initial sales encounters

Initial encounters between buyers and sellers are important (Dwyer et al., 1987; Evans et al., 2000), as these encounters potentially initiate ongoing relationships. Based on these initial encounters, buyers decide to continue to put effort into the relationship or not (Bergeron et al., 2008; Dekker and Wright, 2012). The vast
majority of initial business-to-business sales encounters do not end in a sale (Rackham, 1995).

**Goal of initial sales encounters**

Generally, the initial encounter is used by buyers to identify whether future investment of resources from the buyer's side will generate sufficient added value (Dekker and Wright, 2012). Buyers strive for ideal transactions (Sheth, 1976), which means that both process (e.g. the way the supplier and the buying organisation work) as well as the content (e.g. what is being delivered through products or services) are compatible.

Whether a transaction is compatible or not depends on personal factors, organisational factors and product or service related factors (Sheth, 1976; Doney and Cannon, 1997; Plank et al., 1999). The initial encounter is a first assessment by the buyer of the compatibility on these three levels (Dekker and Wright, 2012). Only when an overall evaluation of these three levels leads to sufficient anticipated potential or expected value (Grönroos and Voima, 2013), will buyers decide to allow or initiate future interaction (Dekker and Wright, 2012).

**Phases in initial sales encounters**

Initial sales encounters occur in social context and therefore both parties have already some *a priori* knowledge, or at least assumptions about the other party (Evans et al., 2000). This knowledge, or these assumptions, are grounded in past experiences of the self or others (Dekker and Wright, 2012), information on websites, reviews, and the interaction leading up to the encounter (e.g. phone call, e-mail, etc.).

At the start of the encounter, a first impression is formed of the seller's personality. A number of studies indicate that this assessment takes place during the first minutes of the encounter (Evans et al., 2000; Bergeron et al., 2008). According to a study by Dekker and Wright (2012), this first assessment focusses on the social attraction (Leigh and Summers, 2002) and is strongly related to the
construct of likability. Due to the lack of more task-related information, this affective assessment is thought to be more important during initial encounters than at later stages of the relationship (Dowell et al., 2014). However, buyers are aware of this process and try to minimise the possible effects of this affective assessment (Dekker and Wright, 2012), as they are convinced that the role of a buyer surpasses the personal gains of an expressive relationship (Blocker, Houston, et al., 2012). Instead, buyers actively force themselves to have a more instrumental, or at least ambivalent connection with suppliers (Blocker, Houston, et al., 2012), thus mitigating the effects of this instant affective impression (Tsalikis et al., 1992).

During the next phase, referred to as the medial phase (Bergeron et al., 2008), buyers seek for information that helps them assess the task related attractiveness (Leigh and Summers, 2002) of the salespeople, consisting of cues regarding relevant knowledge, skills, and attitudes. Additionally, they accumulate information regarding the organisation represented and the products and services involved (Dekker and Wright, 2012).

At the end of the encounter, or shortly afterwards, the overall evaluation is made (Bergeron et al., 2008), based on assessed potential value of future interaction (Dekker and Wright, 2012). This evaluation is best defined as ill-structured problem solving (Evans et al., 2000); that is, partly, based on salesperson trust, organisational trust and value trust (Sheth, 1976; Plank et al., 1999; Dekker and Wright, 2012).
Table 4: Assessment per phase of initial sales encounters, based on Dekker and Wright (2012)

Pre-encounter assessment based on:
- Experiences of others (co-workers, network, and reviews)
- Information of the organisation represented (website, commercials, press releases)
- Cues from pre-encounter interaction (phone call or e-mail contact)

Introduction phase
- Instant affective assessment during the first minutes of the encounter
- As the affective assessment of the salesperson is of relative importance in the overall assessment of a buying process, the effects of any attitudinal or behavioural consequences are actively suppressed by buyers.

Medial phase
- A task related assessment of the seller
- An assessment of the organisation represented
- An assessment of the anticipated value (based on underlying products/services)

Conclusion phase
- Overall evaluation of the assessment based on the assessments of the salesperson, the organisation represented and the value anticipated

In a study of Dekker and Wright (2012), none of the respondents explicitly mentioned or hinted at similarity as a factor of influence. Nor do other related studies report explicit or conscious similarity assessments by buyers. Therefore, it is concluded that any relationship between similarity and other relevant constructs in initial business-to-business sales encounters is a result of an implicit and automated process.

3.2 Perception processes

In initial sales encounters, buyers assess the personality of a seller during the first few minutes of the encounter. This assessment defines perceived likeability or social attraction. In social cognition theory, this assessment, termed the “person
perception process”, is based on the use of cues to infer traits of others (Zaki and Ochsner, 2011; Hall et al., 2015).

During the medial phase on the initial sales encounter buyers assess the willingness and capability, which drive task attraction. Willingness assessment is called the “mind perception process” and is aimed at understanding what others feel, think and intend (Zaki and Ochsner, 2011; Spunt and Lieberman, 2012). Capability is assessed through the “competence perception process”. All three perception processes are discussed.

3.2.1 Person perception process

Humans are capable of making accurate assessments of other people (Ambady and Rosenthal, 1992), based on very limited information in a short amount of time (30 seconds up to 5 minutes). These judgements are based on observation, social thought, and interaction (Swann, 1984) and are used to predict future behaviour (Christopher and Schlenker, 2000; Mehl et al., 2010). In their assessments, people can strive either for circumscribed accuracy or global accuracy (Swann, 1984). Circumscribed accuracy is strived for when a person requires an assessment of a target in a specific context, during a specific timeframe. Global accuracy leads to an assessment of a target that is valid for a longer period, is transcontextual, and transpersonal (Swann, 1984; Levesque and Kenny, 1993; Zaki and Ochsner, 2011). Well-acquainted people perceived themselves more often as less similar to the other, than less-acquainted people (Malloy and Albright, 1990).

Traits

People infer that others have certain traits that, combined, depict their personality (Albright et al., 1988). Social cognition research primarily uses “the Big Five” personality traits (Cattell, 1957; Norman, 1963; Tupes and Christal, 1992) and is considered a valid and reliable instrument (Goldberg, 1992; Kenny et al., 1992) in zero-acquaintance situations. The five factors are: extraversion; agreeableness; conscientiousness; emotional stability; and culture.
In a zero-acquaintance situation, extraversion and conscientiousness are judged more validly and reliably than the other traits (Albright et al., 1988; Borkenau and Liebler, 1992; Kenny et al., 1992). Assessments are formed within short timeframes, and more time and exposure does not yield better results (Ambady and Rosenthal, 1992; Kenny et al., 1994). Although these results are consistent in studies that are US-based (Kenny et al., 1994), a similar study in China (Albright et al., 1997) found that all five traits were assessed just as accurately. Therefore, it is concluded that person perception processes are moderated by cultural settings (Albright et al., 1997).

**Cue based assessment**

In zero-acquaintance situations, traits are inferred based on cues. Several cue sources are identified (Borkenau and Liebler, 1992): physical attributes, vocal expression, and facial expression. When extensive interaction is lacking, physical appearances and nonverbal behaviour (Kenny et al., 1992) are the most important cues. Trait assessment, based on cues, is complex, as the relationship between traits and physical appearances can be direct, inverse, or non-existent. However, people are able to distinguish between those different relationships (Borkenau and Liebler, 1992).

A framework of personal perception based on cues is referred to as Brunswik’s lens (Brunswik, 1956; Kaufmann and Athanasou, 2009). Cues (3) objectively differ in how accurately they predict an aspect of a target (8). This is called “ecological validity (1)”. Two or more cues differ in how accurate they infer a characteristic of a target, which is called “objective inter-correlations of cues (4)”. Cues will be valued by a perceiver (5), and two or more cues combined can have a certain predictive value in the eyes of the perceiver (6). The asserted predictive value of the cues (5) and their inter-correlation (6) will influence the use of cues (2) in the judgement (7) of the perceiver (Hammond, 1998).
Another, broader, description of inferring cues is provided by Gibson (Zebrowitz and Collins, 1997). The Gibsonian approach differs by taking biological and environmental explanations into account, as possible influencers of physical and psychological qualities. It stipulates that there is a relationship between psychological and physical qualities, that is mediated by the environment. Furthermore, the Gibsonian approach acknowledges that people have different goals or affordances for interactions, and, therefore, will have different perceptions, labelled perceiver attunement. This is in line with the notion of circumscribed accuracy (Swann, 1984). Also, the availability of information steers the ability to accurately infer certain trades, based on cues. Like with perceiver attunement, information availability is influenced by context (Zebrowitz and Collins, 1997).
Rapid body movement, smiling and physical attractiveness cue extraversion (Albright et al., 1988; Borkenau and Liebler, 1992; Kenny et al., 1992; Berry and Landry, 1997). A firm handshake is also associated with extraversion (Chaplin et al., 2000). Formality and neatness of dress are used as cues for assessing conscientiousness (Albright et al., 1988). Wealth cues cause targets to be assessed as hard working, intelligent, self-disciplined, cultured, successful, and popular, but also are also perceived as less kind, less likeable, less honest, and less caring (Christopher and Schlenker, 2000).

A possible explanation for why extraversion and conscientiousness are more accurately assessed than others traits is that they are more related to spontaneous expressive nonverbal behavioural cues (Ambady et al., 1995). Furthermore, cues are linked to other traits in different cultures (Albright et al. 1997).

### 3.2.2 Mind perception process

People are not only capable of making inferences about the traits that others have (people perception process), but are also capable of inferring what others think (Zaki and Ochsner, 2011). This process is called the mind perception process. The mind perception process is far less researched than the person perception
process (Epley and Eyal, 2011) and is rooted in both cognitive neuroscience and social psychology (Zaki and Ochsner, 2011). Mind perception processing involves two different routines (Zaki and Ochsner, 2011), defined as the Experience Sharing System (ESS) and the Mental State Attribution System (MSAS).

**Experience Sharing System (ESS)**

Humans have the capability to feel what others feel by mirroring the feelings others have and thus experiencing these feelings themselves (Doré et al., 2014). It is stated that perceivers of others show brain activities that are similar to those observed, if these others are experiencing pain or are being touched. The brain activities involved in the process were termed ESS by Zaki and Oschner (2011). Iacoboni (2011) stipulated that the ESS is perfect for interpersonal understanding in situations of low complexity, without much effort, and is pivotal in our everyday lives. Similarity enhances brain activity in the ESS (Doré et al., 2014).

**Mental State Attribution System (MSAS)**

A more elaborate way of finding out what others feel or intend is the MSAS. This set of brain activities consists of generating hypotheses based on the context and information available, and quickly testing them (Zaki and Ochsner, 2011; Doré et al., 2014). MSAS plays an important role in more complex situations (Iacoboni, 2011). For instance, when targets produce different cues that are contradictory (Zaki and Ochsner, 2011). In this context Montoya and Horton (2014) hypothesised that the relationship between similarity perception and attitudes and behaviour is fully mediated by the perception of state of mind (e.g. willingness) of the other person.

**Thinking fast and thinking slow**

A study (Zaki et al., 2010) that confronted perceivers with pictures of targets containing nonverbal cues that were conflicting with situational context descriptions also given, produced judgements about the state of mind of the targets that were either in line with the nonverbal cues or the situational
information. It was also measured that the active regions of the brain were consistent with the use of the ESS and the MSAS, respectively.

Research shows that the ESS becomes active effortlessly, and is the favourite route taken when the perceivers attention is limited (Spunt and Lieberman, 2013). The MSAS becomes active when perceivers have to make accurate and defensible assessments (Devine et al., 2002; Zaki and Ochsner, 2011), and perceivers have the time and the attentional firepower to make an assessment using the MSAS (Gilbert et al., 1988). These outcomes are consistent with the findings of Ickes (2011), that motivation of perceivers is an important factor. People with increased motivation are more inclined to activate the MSAS. Perceived similarity is such a situational factor (Zaki and Ochsner, 2011), in that it potentially prevents the activation of the MSAS.

3.2.3 Competence perception process

Besides assessing what people are like (people perception process) and what people think of feel (mind perception process), people also assess the competence of others (Fiske et al., 2002; Cuddy et al., 2004; Montoya and Horton, 2014). For reasons of consistency, this process is referred to as the competence perception process in this study. Although neither social psychology nor neuroscience provide a comprehensive overview of the competence perception process, two explanations are given (Fiske et al., 2002; Montoya and Horton, 2014).

**Stereotyping**

The warmth and competence theory (Malone and Fiske, 2013) holds that people assess others, as well as organisations and products, as high or low on competence, based on stereotyping. Competence in this vein of research is defined as “[…] the effective capacity to achieve results and self-profitable ability […].” (Andrei and Zait, 2014:13). The assessment of competence by means of stereotyping is a rapid and automatic heuristic (Fiske, 1998), that places others in categories based on the context of a situation. The fact that stereotyping is
deemed an automatic heuristic makes the process comparable to the ESS in mind perception processing (Zaki and Ochsner, 2011).

Similarity is reported to affect assessments based on stereotyping (Fiske, 1998). However, as this process relies on presumed group characteristics rather than individual characteristics, similarity is defined as being an in-group or an out-group member (Hogg, 1995; Fiske, 1998). Incompetent behaviour of in-group members is attributed to bad luck or task difficulty, while out-group members are considered incompetent (Fiske, 1998).

**Competence Attribution System (CAS)**

In accordance to the MSAS, people can avoid heuristically derived competence perceptions, which is referred to as high-effort processing by Fiske (1998). However, for reasons of consistency, this more elaborate perception process is addressed to as Competence Attribution System (CAS). To be able to activate the CAS, people should be: appropriatelymotivated by social context; in a neutral mood (as overly enthusiastic or negative moods enhance stereotyping); and sufficient information should be available (Fiske, 1998). As with MSAS, the relationship between similarity, attitudes and behaviour is hypothesised to be fully mediated by, in this case, competence assessments (Montoya and Horton, 2014).

**3.2.4 Perception processes in initial sales encounters**

The way people assess others depends on the context and the purpose at hand. A significant amount of research does not take “[…] the thicket of reality […]” (Swann, 1984: 457) into account. Characteristically pursued behavioural mechanisms within the context should be taken into account. One of these specific environments is the initial encounter between a seller and a buyer.

**Person perception process in initial sales encounters**

What is generally referred to as a first impression (DeCormier and Jackson, 1998) or instant affective impression (Tsalkis et al., 1992), is the equivalent of the person perception process (Zaki and Ochsner, 2011). This perception process
precedes any cognitive evaluation (Henthorne et al., 1992), and can influence the buyer based on the salesperson’s physical appearance, product knowledge and presentation skills, and the seller’s company reputation (Tsalikis et al., 1992). In line with the introduction the similarity-attraction effect by Evans (1963), research indicates (LaTour et al., 1989) that the degree of similarity as perceived by the buyer, influences the affection of the buyer regarding the seller during initial encounters.

Attraction of this affective impression is instantaneous and based on cues that are derived from observable characteristic (Lichtenthal and Tellefsen, 2001). It is posited that the person perception process results in the answer to the question “How agreeable will our cooperation be?”, and is related to the social attraction effect and the construct of likeability.

**Mind perception process in initial sales encounters**

The mind perception process, involving two different routes for processing information about other people, is not explicitly mentioned in marketing literature, except for Lichtenthal and Tellefsen (2001). In their paper, it is stated that, if the buying process concerned is deemed important by the buyer, and sufficient information regarding the values of the seller is available, buyers will employ a central route, consisting of cognitive processes. Otherwise, buyers will take a peripheral route, processing and engaging in a heuristic approach.

The description of the central route bears a resemblance to MSAS-processing, and peripheral route processing is similar to ESS-processing. The mind perception process answers the “How willing is he or she to put in the effort necessary?” question (Montoya and Horton, 2014). It is postulated that the mind perception process captures the willingness assessment and is related to task attraction.


**Competence perception process in initial sales encounters**

As with the mind perception process, there is a comparison between stereotyping and the CAS of the competence perception process, and the central and peripheral routes of Lichtenthal and Tellefsen (2001). The outcome of this process is the answer to the question “How good is that person at what I need him or her to do?” (Montoya and Horton, 2014).

No other study in marketing literature has been found that explicitly addresses the way in which the buyers process information to assess the competence of salespeople holistically (Blocker, Houston, et al., 2012). Relationships between cues and competencies are compartmentally researched. Wood, et al (2004; 2008) researched the influence of smiling, handshake, eye contact, and verbal courtesy on credibility and expertise, and the consecutive relationship with trust. Other, partly related, research found relationships between nonverbal styles (Carli et al., 1995), hand gestures (Maricchiolo et al., 2009), and competence perceptions.

**3.2.5 Overview**

During the introduction phase, buyers undergo person perception processes, that lead to instant affective assessments (Tsalikis et al., 1992). However, buyers actively prevent this social attraction related assessment to steer their overall assessment (Dekker and Wright, 2012).

Next, in the medial phase, buyers develop perceptions of the willingness (Montoya and Horton, 2014) of sellers through the mind perception process (Zaki and Ochsner, 2011), and of their capability (Montoya and Horton, 2014), by means of the competence perception process (Fiske et al., 2002). These mind and competence perceptions can be the result of heuristics (e.g. ESS and stereotyping), when there is insufficient information, a lack of external or internal motivation, or when a well-argumented and defensible decision is not required (Fiske, 1998; Zaki and Ochsner, 2011). When buyers manage to overcome these automatic processes, the MSAS is activated to assess willingness (Doré et al.,
2014), and the CAS is activated to assess competence (Fiske, 1998; Fiske et al., 2002).

These three processes answer the questions “How agreeable will our cooperation be?”; “How willing is he or she to put in the effort necessary?”; and “How good is that person at what I need him or her to do?”. These assessments, combined with an assessment of the organization represented and the assessment of the products or services, drive the outcome of the initial sales encounter. The influence of similarity is expected to be more substantial in heuristic assessments than in high-effort assessments (Fiske, 1998; Montoya and Horton, 2014).

3.3 The similarity attraction-effect in initial sales encounters

Based on the synthesis of social psychology and marketing literature, the similarity-attraction effect is a result of the assessment of likeability, willingness, and capability, that can be influenced by similarity. As extant marketing literature on initial business-to-business sales encounters is not underpinned by this conceptual model, an array of constructs is researched that all partly cover the proposed conceptual model.

Eight articles in marketing literature (Busch and Wilson, 1976; Henthorne et al., 1992; Coulter and Coulter, 2002; Leigh and Summers, 2002; Wood, 2004; Wood, Boles, Johnston, et al., 2008; Geigenmüller and Greschuchna, 2011) are identified that specifically cover initial business-to-business initial sales encounters and address buyers’ perceptions. The constructs employed are identified, and categorised according to the taxonomy proposed in the conceptual framework (similarity, likeability, willingness, and capability).

3.3.1 Similarity in initial sales encounters

The concept of similarity is present in all eight articles. A consistent use of the term and relationships to other constructs in initial sales encounters is, however, missing:
Busch and Wilson (1976) address perceived similarity and focus on attitudinal similarity, and state that there is a relation between similarity and power perceptions;

Henthorne et al. (1992) postulate that physical similarity (e.g. gender and race) enhances trustworthiness, power and likeability. It is also argued that the effect of similarity is moderated by any risk reduction sought. If higher levels of risk are perceived, similarity begins to lose significance;

Coulter and Coulter (2002) advance that similarity is assessed by buyers as a part of a set of person related characteristics, and identify perceived similarity as a part of social attraction;

Leigh and Summer (2002) adhere to the stance that similarity is a factor in initial business-to-business sales encounters, but contend that it is unclear whether similarity influences outcomes directly, or whether it affects social attraction, or competence. (Leigh and Summers, 2002);

Wood (2004) holds that similarity leads to likeability;

Wood et al. (2008) do not explicitly address similarity but incorporate one item that depicts gender similarity as one of the cues that are used by buyers;

Wood et al. (2008) include a construct of similarity/likeability in their conceptual model;

Geigenmüller and Gerschuchna (2011) conclude their research with the remark that the concept of similarity is a promising avenue for further research.

This listing lacks consistency, and yet does not contain claims that contradict or hamper the proposed conceptual framework for explaining the similarity-attraction
effect. There is support for the claim that any effect of similarity is mediated (Leigh and Summers, 2002); that relationships between similarity and all three assessment categories (likeability, willingness and capability) are identified; and that the moderation role of risk is depicted (Henthorne et al., 1992).

3.3.2 Likeability in initial sales encounters

A number of studies explicitly use the construct of likeability (Henthorne et al., 1992; Leigh and Summers, 2002; Wood, Boles, Babin, et al., 2008). Coulter and Coulter (2002) identify personal characteristics, as opposed to offer-related characteristics, with the underlying constructs being similarity, empathy and politeness. Here, similarity is identified as a characteristic, although similarity can only be a (perceived) consequence of the buyer-seller dyad and not a characteristic of seller. Besides likeability, Leigh and Summers (2002) employ friendliness, aggressiveness and tactfulness, which can all be attributed to likeability. Another term used is compatibility (Wood, 2004; Wood, Boles, Johnston, et al., 2008), which should be interpreted as a synonym of likeability and as an indication of the agreeableness of cooperation, when looking at the underlying items. The remaining two studies (Busch and Wilson, 1976; Geigenmüller and Greschuchna, 2011) do not take likeability into account.

3.3.3 Willingness in initial sales encounters

The term willingness is not used to identify a construct that explains any aspect of the assessment of sellers by buyers. However, a part of the explanation of the offer-related characteristics of Coulter and Coulter (2002) is the willingness to customize. Similarly, another study explains individual communication as a reflection of the willingness to serve the customer (Geigenmüller and Greschuchna, 2011). In a study by Henthorne, et al (1992) an exploratory factor analysis is performed on a list of aspects that cover perception assessments by buyers. One factor is branded competence/trust, but, in fact, largely reflects the notion of willingness.
Other constructs seem less related to willingness but, under further inspection, actually serve to measure willingness: empathy, explained as the ability and intention to understand the job responsibilities of buyers (Leigh and Summers, 2002); and “consumer understanding”, defined as pursuing the interests of customers (Geigenmüller and Greschuchna, 2011). A more evident dimension of willingness is benevolence (Wood, 2004). Furthermore, dependability (Leigh and Summers, 2002) is a reflection of the result of willingness, as the items reflect the assessment of the buyer of the extent to how much a buyer can count on the salesperson to act in their best interest.

Besides a strict interpretation of willingness or benevolence (Wood, 2004), a second construct related to willingness emerges: integrity (Coulter and Coulter, 2002; Leigh and Summers, 2002; Wood, 2004; Wood, Boles, Johnston, et al., 2008; Geigenmüller and Greschuchna, 2011). It is stated that buyers assess the honesty, integrity and ethical standards (Coulter and Coulter, 2002) of salespeople. Perceived honesty is even used as a synonym for reliability (Geigenmüller and Greschuchna, 2011) in the context of initial sales encounters. Integrity of sellers serves as a safeguard for buyers. Sellers will act with the best interests of their organisation at heart, thus contributing to willingness. Furthermore, trustworthiness can be defined as a synonym for the honesty dimension, given that trustworthiness (Henthorne et al., 1992) is an assessment of the extent to which a subject can be trusted, while trust itself is the extent that the assessor is prepared to trust the other in a specific situation for a specific purpose, which itself is an attitude (Hardin, 2002; Ashraf et al., 2006).

Overall, the answer to the question “How willing is he or she to put in the effort necessary?”, is assessed by two dimensions: benevolence and integrity. One study (Wood, Boles, Johnston, et al., 2008) operationalises credibility based on items that reflect both dimensions.

As with likeability, two studies (Busch and Wilson, 1976; Wood, Boles, Babin, et al., 2008) do not address willingness or a closely-related construct as a variable for assessment.


3.3.4 Capability in initial sales encounters

Capability reflects to what extent a seller is perceived to be good at what the buyer expects the seller to do. Extant literature clearly indicates that this assessment is based on two dimensions: power and expertise. Power is considered a necessity (Busch and Wilson, 1976; Henthorne et al., 1992; Coulter and Coulter, 2002; Leigh and Summers, 2002) and is defined as the ability to change (Busch and Wilson, 1976) or make things happen. Leigh and Summers (2002) emphasise the importance of the ability to serve the account. All eight articles postulate that expertise is essential in order to enhance positive assessments of professional buyers during initial sales encounters.

3.3.5 Overview

When imposing the proposed conceptual framework on current research of initial business-to-business sales encounters, all constructs used can be categorised in one of these three categories. Five (Henthorne et al., 1992; Coulter and Coulter, 2002; Leigh and Summers, 2002; Wood, 2004; Wood, Boles, Johnston, et al., 2008) of the eight studies make use of assessment constructs in all three categories. Similarity is addressed in all eight articles.

It is concluded that there is a clear relationship between extant marketing literature on initial business-to-business sales encounters and the proposed conceptual model, regarding similarity and the three categories of likeability, willingness, and capability. Willingness is understood to have two dimensions: benevolence and integrity. Correspondingly, capability comprises two dimensions: power and expertise.

3.4 Attitudinal and behavioural outcomes of initial sales encounters

In sales related marketing literature, a number of attitudes and behaviours are considered important. Milestone articles on buyer-seller relationships address satisfaction and interdependence (Dwyer et al., 1987); relationship quality and anticipation of future interaction (Crosby et al., 1990); dependence and trust
(Ganesan, 1994); trust, relationship commitment, and propensity to leave (Morgan and Hunt, 1994); performance satisfaction, trust, social bonds, mutuality of goals, power/dependence, and commitment (Wilson, 1995); trust of the firm, trust of the salesperson, and anticipated future interaction (Doney and Cannon, 1997); trust and satisfaction (Selnes, 1998); and relationship quality comprising trust, satisfaction and commitment (Smith, 1998).

However, not all of these attitudinal and behavioural outcomes are relevant in the initial stage of a buyer-seller relationship (Wilson, 1995). The vast majority of initial sales encounters in a business-to-business setting do not end in a sale (Rackham, 1995). The norm in business-to-business selling is four to five meetings and myriad e-mails and phone calls (DeCormier and Jackson, 1998).

The pivotal attitudinal outcome of the similarity-attraction effect in initial business-to-business sales encounters is trust (Busch and Wilson, 1976; Henthorne et al., 1992; Coulter and Coulter, 2002; Leigh and Summers, 2002; Wood, 2004; Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011). This corresponds with the attention that the concept of trust is given in buyer-seller relationship research in general (Ganesan, 1994; Morgan and Hunt, 1994; Wilson, 1995; Doney and Cannon, 1997; Selnes, 1998; Smith, 1998).

Anticipated future interaction (Crosby et al., 1990; Doney and Cannon, 1997) is considered the key behavioural outcome of an initial sales encounter (Busch and Wilson, 1976; Geigenmüller and Greschuchna, 2011), as the goal of the initial meeting is to determine if a next meeting is apposite (DeCormier and Jackson, 1998). Both trust and anticipated future interaction are discussed.

### 3.4.1 Trust in initial sales encounters

In the conclusion phase (Bergeron et al., 2008) of an initial sales encounter, buyers make an overall evaluation of the cues and information presented (Dekker and Wright, 2012). This evaluation consists of their trust in the seller, the organisation represented, and the products or services discussed (Sheth, 1976; Doney and Cannon, 1997; Plank et al., 1999; Dekker and Wright, 2012).
Grounded in the work of Rousseau, et al (1998), in this research, trust is defined as a psychological state or attitude of a buyer, that entails the intention to accept vulnerability based upon positive assessments of multiple aspects of a salesperson, the organisation represented, and anticipated added value by means of products and services. This multilevel approach of trust (Rousseau and Sitkin, 1998) is chosen, as it best represents the current descriptions in marketing literature of trust in initial business-to-business sales encounters (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011; Dekker and Wright, 2012).

**Trust in the salesperson**

As concluded earlier, trust in the salesperson is the result of the similarity-attraction effect and assessments of the other constructs involved (e.g. benevolence, integrity, power, expertise, and likeability). The influence of similarity is mediated by these other constructs (Leigh and Summers, 2002; Montoya and Horton, 2014).

In turn, trust in the salesperson influences trust in the organisation represented (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011). Trust in the anticipated value is also affected by trust in the salesperson. Especially when the salesperson is to be actively involved in delivery of the anticipated value (Dekker and Wright, 2012).

**Trust in the organisation represented**

The second dimension of trust is trust in the organisation represented (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011; Dekker and Wright, 2012). Buyers consider doing business with trusted organisations, even when they lack trust in the salesperson that represents that organisation, specifically when that salesperson is not key in cooperation that results in the anticipated added value (Dekker and Wright, 2012).
Trust in the organisation represented is \textit{a priori} shaped (Henthorne et al., 1992), and is developed by assessments of reputation and service communication (Geigenmüller and Greschuchna, 2011), as well as affected by the interaction in the buyer-sellers’ dyad (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011; Dekker and Wright, 2012). Together with trust in the salesperson, trust in the organisation represented affects the anticipated value (Dekker and Wright, 2012).

\textbf{The salesperson trust – organisational trust relationship}

It is stated that trust in buyer-seller relationships consists of both trust in the salesperson and in the supplier (Zaheer et al., 1998; Seppanen et al., 2007). However, an unambiguous view on the nature of the relationship between these two constructs is missing. Studies operationalise these constructs as unrelated (Plank et al., 1999), as well as recursive (Sun and Lin, 2010). Other researchers posit that salesperson trust precedes organisational trust (Adams et al., 2010; Jena and Guin, 2010; Geigenmüller and Greschuchna, 2011), or that organisational trust is an antecedent of salesperson trust (Doney and Cannon, 1997).

Empirical studies that focussed on the recursive relationship between salesperson trust and organisational trust found that the influence of organisational trust was either limited (Sirdeshmukh et al., 2002) or not significant (Sun and Lin, 2010). The influence of salesperson trust on organisational trust was found to be significant in multiple studies (Sirdeshmukh et al., 2002; Wood, Boles, Babin, et al., 2008; Sun and Lin, 2010; Geigenmüller and Greschuchna, 2011).

\textbf{Anticipated added value in initial sales encounters}

The added value that buyers expect to gain from an exchange, is based on value-in-use (Lemke et al., 2011). This is also referred to as product trust (Sheth, 1976; Doney and Cannon, 1997; Plank et al., 1999). Buyers assess whether doing business will potentially result in higher profits, reduced cost, or in unburdening
their organisation (Briggs and Grisaffe, 2010; Dekker and Wright, 2012). Depending on the type of buying task, a transactional or a holistic assessment is made (Lemke et al., 2011) of the anticipated added value. The difference between transactional or holistic assessment is also explained as the difference between short-term wants or long-term known and unknowns needs (Sujan, 2011).

Trust in the anticipated value is based on the outcome of the assessed future benefits minus the assessed future sacrifices (Lapierre, 2000; Ulaga, 2003). Benefits consist of product related assessments (alternative solutions, product quality, product customisation), service related benefits (responsiveness, flexibility, reliability, technical competence), and relationship related benefits (image, trust, solidarity). Sacrifices comprise price, time, effort, energy, and conflict (Lapierre, 2000). The approach (transactional or holistic) and the type of transaction (product, service, or a combination of both) influence what assessments are made by the buyer.

As value-in-use fluctuates during the course of the customer journey (Lemke et al., 2011), it is sometimes difficult to predict all future benefits and sacrifices. However, buyers compose an overall assessment of the anticipated added value of a possible exchange (Briggs and Grisaffe, 2010; Dekker and Wright, 2012), which is influenced by trust in the salesperson and the organisation he or she represents (Dekker and Wright, 2012).

Also, it is stated that capability and willingness (Blocker, Cannon, et al., 2012: 21) define the capacity of a salesperson to generate added value for customers. In business-to-business exchanges, perceived power and expertise of salespeople are prominent capability attributes of anticipated added value, together with likeability (Liu and Leach, 2001; Echchakoui, 2015). Particularly, salesperson expertise was found (Liu and Leach, 2001) to have a stronger influence on satisfaction than on trust. As in initial encounters, satisfaction is still irrelevant. It is held that expertise perceptions of salespeople by buyers influence anticipated added value. Besides capability perceptions (power and expertise), willingness
perceptions like honesty, believability and integrity (Echchakoui, 2015) increase value perceptions.

3.4.2 Anticipated future interaction

The key behavioural outcome of the similarity-attraction effect in initial business-to-business sales encounters is anticipated future interaction, as business-to-business sales processes commonly entail four to five encounters (Rackham, 1995; DeCormier and Jackson, 1998), and is also referred to as an advance (Rackham, 1995). Busch and Wilson (1976) describe this as the willingness to meet again, while Geigenmüller and Greschuchna (2011) use the term relationship initiation. The anticipation of future interaction is affected by trust in the salesperson, trust in the organisation represented, and sufficient anticipated added value (Dekker and Wright, 2012).

Anticipation of future interaction is a longstanding construct in buyer-seller relationship research (Weitz, 1981; Crosby et al., 1990; Heide and Miner, 1992; Doney and Cannon, 1997; Boles et al., 2000), and still used to date (Alejandro et al., 2011; Goudarzi and Llosa, 2011; Delbufalo, 2012; Yu and Tung, 2014).

3.5 Aims and objectives redefined

On the bases of social psychology, neuroscience, and marketing literature, the proposed similarity-attraction framework is extended in order to fit the context of initial business-to-business sales encounters. Based on this contextual conceptual framework, a reformulation of the aim of this study is provided and the objectives are posited in the form of hypotheses that guide the empirical study.

3.5.1 A similarity-attraction framework in context

Using cues (Wood, 2004) and a priori formed assessments (Henthorne et al., 1992) buyers assess social attraction by means of likeability and task attraction (Leigh and Summers, 2002) through willingness and capability (Montoya and Horton, 2014). Willingness assessments by buyers in initial sales encounters
consist of two sub-dimensions: benevolence and integrity. Also, capability is a two-dimensional construct comprising power and expertise. The processes that enable buyers to assess likeability, willingness and capability are the person perception, mind perception, and competence perception processes (Fiske, 1998; Zaki and Ochsner, 2011).

Likeability, willingness and capability influence trust assessments of the salesperson and, therefore, anticipated added value. Trust in the salesperson influences trust in the organisation represented (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011), and anticipated value is influenced by both (Dekker and Wright, 2012). All three influence anticipated future interaction (Geigenmüller and Greschuchna, 2011; Dekker and Wright, 2012). The relative importance of trust in the salesperson depends on the involvement and importance of the salesperson in realising the anticipated value.

Initial sales encounter literature consistently reports a positive relationship between similarity and likeability (Evans, 1963; Henthorne et al., 1992; Coulter and Coulter, 2002; Wood, Boles, Babin, et al., 2008). The effect of similarity on benevolence, integrity, power and expertise is moderated by situational circumstances and the motivation of buyers to allocate mental firepower to the mind perception process and the competence perception process.

When buyers allocate little cognitive attention to these mind and competence perception processes, this activates the ESS (Zaki and Ochsner, 2011) and competence assessment by means of stereotyping (Fiske et al., 2002), respectively. In these cases, similarity has a larger impact on the assessments of willingness and competence. Buyers will activate the ESS or use stereotyping when they have low risk perceptions (Henthorne et al., 1992), when dependence of the buyers perspective is low (Wilson, 1995), and products instead of services are involved (Dekker and Wright, 2012).
Figure 8: Similarity-attraction effect in initial business-to-business sales encounters
3.5.2 Hypotheses

The overall aim of this study is to understand the role of the similarity-attraction effect in initial business-to-business sales encounters. The rationale behind this aim is to enhance evidence-based sales (Rousseau, 2012) in general, and to evaluate the added worth of actionable tools grounded in the extended similarity-attraction hypothesis (DeCormier and Jackson, 1998). Such tools are considered useful during initial sales encounters in a business-to-business context.

To date, current research on the role of similarity in buyer-seller relationships is inconclusive (Lichtenthal and Tellefsen, 2001) and a deeper understanding of the similarity-attraction effect in initial sales encounters is needed (Geigenmüller and Greschuchna, 2011). After conducting a comprehensive literature review in social psychology and marketing literature, and focussing on literature regarding perception processes and the specific context of initial business-to-business sales encounters, a conceptual framework depicting the similarity-attraction in initial sales encounters is proposed.

The model extends current initial sales encounter research, as it incorporates the influence of both trust of the organisation represented, anticipated added value, and the behavioural construct of anticipated future interaction. Furthermore, it holds that attraction is a process, in which similarity influences likeability, willingness and capability assessments. Direct relationships between similarity and attitudinal or behavioural outcomes are mediated by likeability, willingness and capability.

Redefined aim

Although extant literature does not contradict the model (f.i. Boles et al., 2000), the model as a whole needs to be explored. The redefined aim of this study is to execute an explorative study that tests this similarity-attraction effect framework in the context of initial business-to-business sales encounters.
Hypotheses

By means of an instant affective assessment (Tsalikis et al., 1992), similarity influences likeability (Henthorne et al., 1992; Coulter and Coulter, 2002; Leigh and Summers, 2002) through the person perception process (Zaki and Ochsner, 2011), based on cues (Wood, 2004).

In initial sales encounters, higher similarity perceptions lead to higher salesperson trust, willingness (benevolence and integrity) and competence (power and expertise) perceptions of salespeople by buyers (Busch and Wilson, 1976; Coulter and Coulter, 2002; Leigh and Summers, 2002), under the condition that the mind perception is derived at via the ESS (Zaki and Ochsner, 2011; Doré et al., 2014) influence, and competence perception via stereotyping (Fiske, 1998; Fiske et al., 2002). Willingness (benevolence and integrity), capability (power and expertise) (Montoya and Horton, 2014), and likeability assessments mediate the effect of perceived similarity on salesperson trust. Activation of the ESS and stereotyping, or MSAS and CAS, are moderated by risk perceptions (Henthorne et al., 1992), interdependence and the the proposition’s position on the product-service continuum (Dekker and Wright, 2012). Higher willingness, capability, and likeability assessments will also lead to higher levels of anticipated added value (Liu and Leach, 2001; Blocker, Cannon, et al., 2012; Echchakoui, 2015).

Hypothesis 1: perceived similarity is positively related to benevolence, integrity, power, expertise, and likeability.

Hypothesis 2: benevolence, integrity, power, expertise, and likeability mediate the relationship between perceived similarity and salesperson trust.

Hypothesis 3: risk perception, interdependence, and position on the product-service continuum moderate the relationship between perceived similarity and benevolence, integrity, power expertise, and likeability.

Hypothesis 4: benevolence, integrity, power, expertise, and likeability are positively related to anticipated added value.
The attitudinal outcome component of the similarity-attraction effect, trust of the salesperson, is enhanced through higher perceptions of benevolence (Wood, 2004), integrity (Henthorne et al., 1992; Boles et al., 2000), power (Busch and Wilson, 1976; Henthorne et al., 1992), expertise (Boles et al., 2000; Leigh and Summers, 2002), and likeability (Echchakoui, 2015). In turn, trust of the salesperson enhances trust in the organisation represented (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011), and both influence anticipated added value (Dekker and Wright, 2012).

The possible influence of organisational trust on salesperson trust is omitted from the conceptual framework, as there is limited empirical support of the importance of the organisation trust to salesperson relationship (Sirdeshmukh et al., 2002; Sun and Lin, 2010). Furthermore, data analysis technique of choice does not permit recursive relationships (Hair et al., 2016) and the objective is to research the influence of interpersonal relationships on outcome variables.

*Hypothesis 5*: trust in the salesperson enhances trust in the organisation represented.

*Hypothesis 6*: trust in the salesperson enhances anticipated added value.

*Hypothesis 7*: trust in the organisation represented enhances anticipated added value.

The behavioural outcome strived for by salespeople in an initial business-to-business sales encounter is future interaction (Rackham, 1995; DeCormier and Jackson, 1998). Anticipated future interaction by buyers (Doney and Cannon, 1997) is based on trust in the salesperson, trust in the organisation represented, and trust in the anticipated added value (Wood, Boles, Babin, et al., 2008; Geigenmüller and Greschuchna, 2011; Dekker and Wright, 2012).

*Hypothesis 8*: trust in the salesperson increases anticipated future interaction.

*Hypothesis 9*: trust in the organisation represented increases anticipated future interaction.
Hypothesis 10: trust in anticipated added value increases anticipated future interaction.

The unidirectional relationships in the similarity-attraction effect are disputed (Davis and Silk, 1972; Newcomb, 1978; Weitz, 1981; Morry, 2007). It is regularly stated that similarity does not solely influence attraction, but attraction enhances similarity perceptions.

Hypothesis 11: the relationship between similarity and likeability, benevolence, integrity, power and expertise is stronger when the buyer has decided to cooperate.
Chapter 4

Methodology and research methods:

This chapter focuses on the development and execution of the empirical study. Firstly, the research approach is addressed, followed by instrumentation, description of the sample, data collection method, data management procedure and data analysis. Also, validity and reliability, and ethics are addressed.

This study used a cross-sectional survey design to assess the role of similarity perceptions of Dutch professional buyers with regards to a specific salesperson during an initial business-to-business sales encounter. Multiple samples were aggregated and analysed, utilising variance based structural equation modeling.

4.1 Research approach

The aim of this study was to investigate the relationships between established and validated constructs. Hence, the main issue was not understanding or measuring these constructs themselves, but understanding the way these constructs relate. Therefore, a quantitative research approach was best suited (Saunders et al., 2009).

Exploratory nature

Despite the quantitative nature of this research, the aim was theory building (Barroso et al., 2010), rather than theory testing or conformation. Therefore, this study was of an exploratory nature, focussing on the relationships between perceived similarity and other constructs that were deemed important in earlier studies regarding initial business-to-business sales encounters.

Units of analysis and observation

The outcome of a sales encounter should not be seen as the result of individual qualities of the people involved, but as a product of a particular dyadic interaction (Evans, 1963). As the aim of the study was to make inferences about the influence of similarity perceptions of buyers on the process of attraction. Specifically, initial
sales encounters (e.g. dyads) between salespeople and professional buyers, were chosen as the units of analysis (Blackstone, 2012).

Buyers (Marcus and Lehman, 1999) were chosen as the unit of observation (Blackstone, 2012). Questioning buyers about their assessment of the various constructs involved in an initial sales encounter made it possible to study how their assessments influenced future buying intentions.

**Philosophical stance**

The aim of this study is to improve sales practice by providing an understanding of the similarity-attraction effect, which can be described as a functionalist approach. The underlying assumption of this type of research is that it is possible to explain social reality by uncovering regularities and causal relations between constructs (Burrell and Morgan, 1979).

Despite the fact that functionalism is often regarded with a positivistic stance (Burrell and Morgan, 1979), this research design was based on a pragmatic stance (Alvesson and Sköldberg, 2009). A survey-based design was considered the best option to capture assessments of salespeople by professional buyers, as observation would not reveal the assessments of buyers, but their consequent behaviour. Interviews reveal espoused theories, rather than theories-in-use (Argyris, 1976; Moon, 2013); and an experiment would only have been an option when researching actual similarity, as an *a priori* distinguishable and controllable element. Furthermore, a cross-sectional survey design is a proven and validated design in dyadic perception processes studied in social psychology (Albright et al., 1988; Montoya and Horton, 2013).

**4.2 Instrument development**

In order to capture perceptions of buyers, a survey was developed using a five-point Likert scale for the measurement of the latent constructs. The scales used to measure the core constructs of the conceptual framework were adopted and
translated from Doney and Cannon (1997) and Mayer and Davis (Mayer and Davis, 1999). After translation, the instrument was tested and adjusted.

Firstly, the operationalisation of buyers’ assessment constructs of the conceptual framework are addressed. Next, the operationalisation attitudinal and behavioural outcome variables are depicted, followed by the scales used to measure potential moderating variables and demographics. Lastly, the measurement scale used is discussed.

4.2.1 Measuring the assessments of buyers

The scales developed by Doney and Cannon (1997) were used, as these scales have been developed in the context of purchasing professionals (Swan et al., 1999). These scales are combined with the scales developed by Mayer and Davis in order to comply with the conceptualisation of trust in this study, and to provide scales that were not provided in the study of Doney and Cannon (1997).

Both studies provide a scale with which to measure expertise. Due to the use of mixed-wording (Van Sonderen et al., 2013) in the Doney and Cannon scale, the Mayer and Davis scale was chosen. Based on the literature review, other scales were selected to provide a measurement tool for those constructs that were not deployed in either studies.

When possible, items were replicated verbatim (McEvily and Tortoriello, 2011). Adjustments in the similarity scale were made to ensure that the respondent would assess the items based on his or her own self, in order to focus on the buyer-seller dyad (Evans, 1963). For instance, “people in our firm” was substituted by “me”. Next, the scales were translated by the researcher and the translations were discussed with two Dutch researchers that are familiar with the literature, and two practitioners.

**Similarity, power, and likeability**

The construct of similarity was measured by means of the Doney and Cannon scale (1997). The items were adjusted in order to measure similarity assessments
of buyers within the dyad. The items of the power and likeability scales were adopted unaltered and translated accordingly, with the exception of the first item, as “having the clout” is a colloquial sentence that has no Dutch equivalent. An item was created in Dutch that best covers the essence of what this item is intended to measure.

Table 5: Similarity scale (3 items)

<table>
<thead>
<tr>
<th>Similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Original scale</strong> (Doney and Cannon, 1997):</td>
</tr>
<tr>
<td>– This salesperson shares similar interests with people in our firm.</td>
</tr>
<tr>
<td>– This salesperson has values similar to people in our firm.</td>
</tr>
<tr>
<td>– This salesperson is very similar to people in our firm.</td>
</tr>
</tbody>
</table>

**Adapted scale:**

– This salesperson shares similar interests with me.
– This salesperson has values similar to me.
– This salesperson is very similar to me.

**Translated scale:**

– De verkoper heeft dezelfde interesses als ik.
– De verkoper heeft dezelfde waarden als ik.
– De verkoper lijkt erg op mij.
Table 6: Power scale (3 items)

<table>
<thead>
<tr>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original scale (Doney and Cannon, 1997):</td>
</tr>
<tr>
<td>– This salesperson has the clout to get his/her way with the supplier.</td>
</tr>
<tr>
<td>– This salesperson is one of this supplier’s most important salespeople.</td>
</tr>
<tr>
<td>– This salesperson has power in his/her firm.</td>
</tr>
</tbody>
</table>

Translated scale:
| – De verkoper krijgt zijn/haar zin binnen de eigen organisatie. |
| – De verkoper is een belangrijke verkoper binnen de eigen organisatie. |
| – De verkoper heeft macht in zijn/haar organisatie. |

Table 7: Likeability scale (3 items)

<table>
<thead>
<tr>
<th>Likeability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original scale (Doney and Cannon, 1997):</td>
</tr>
<tr>
<td>– This salesperson is friendly.</td>
</tr>
<tr>
<td>– This salesperson is nice to us.</td>
</tr>
<tr>
<td>– This salesperson is someone we like to have around.</td>
</tr>
</tbody>
</table>

Translated scale:
| – De verkoper is vriendelijk. |
| – De verkoper is aardig tegen mij. |
| – De verkoper is een aangenaam persoon. |

Benevolence, integrity and expertise

Benevolence, integrity and expertise were measured by scales as developed by Mayer and Davis (1999). All three measures were altered, as the original scales were used to measure benevolence, integrity and expertise of top management.
as experienced by employees (Mayer and Davis, 1999). Other than this modification, the items were not altered. Subsequently, the items were translated.

Even though Doney and Cannon (1997) provide a scale that measures expertise, the scale of Mayer and Davis (1999) was used. The rationale for this decision was the mix of positively worded and negative items in the expertise scale of Doney and Cannon (1997). Although the mixed-wording discussion has a “[...] long and controversial history [...]” (Wong et al., 2003: 73), current thinking advises against the use of mixed-wording (Wong et al., 2003; Van Sonderen et al., 2013).

Table 8: Benevolence scale (5 items)

<table>
<thead>
<tr>
<th>Benevolence</th>
</tr>
</thead>
</table>

Original scale (Mayer and Davis, 1999):
- Top management is very concerned about my welfare.
- My needs and desires are very important to top management.
- Top management would not knowingly do anything to hurt me.
- Top management really looks out for what is important to me.
- Top management will go out of its way to help me.

Adapted scale:
- This salesperson is very concerned about our welfare.
- Our needs and desires are very important to this salesperson.
- This salesperson would not knowingly do anything to hurt us.
- This salesperson really looks out for what is important to us.
- This salesperson will go out of its way to help us.

Translated scale:
- Deze verkoper geeft om hoe het met ons gaat.
- Onze behoeften en wensen zijn erg belangrijk voor deze verkoper.
- Deze verkoper zou ons niet met opzet kwaad doen.
- Deze verkoper kijkt echt wat belangrijk is voor ons.
- Deze verkoper zal heel veel moeite doen om ons te helpen.
**Table 9: Integrity scale (6 items)**

**Integrity**

<table>
<thead>
<tr>
<th><strong>Original scale (Mayer and Davis, 1999):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Top management has a strong sense of justice.</td>
</tr>
<tr>
<td>- I never have to wonder whether top management will stick to its word.</td>
</tr>
<tr>
<td>- Top management tries hard to be fair in dealings with others.</td>
</tr>
<tr>
<td>- Top management's actions and behaviors are not very consistent.</td>
</tr>
<tr>
<td>- I like top management's values.</td>
</tr>
<tr>
<td>- Sound principles seem to guide top management's behavior.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Adapted scale:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- This salesperson has a strong sense of justice.</td>
</tr>
<tr>
<td>- I never have to wonder whether this salesperson will stick to his/her word.</td>
</tr>
<tr>
<td>- This salesperson tries hard to be fair in dealings with others.</td>
</tr>
<tr>
<td>- This salesperson's actions and behaviours are consistent.</td>
</tr>
<tr>
<td>- I like this salesperson's values.</td>
</tr>
<tr>
<td>- Sound principles seem to guide this salesperson's behaviour.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Translated scale:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- De verkoper heeft een sterk rechtvaardigheidsgevoel.</td>
</tr>
<tr>
<td>- Ik twijfel er niet aan dat deze verkoper woord houdt.</td>
</tr>
<tr>
<td>- Deze verkoper probeert eerlijk te zijn naar anderen.</td>
</tr>
<tr>
<td>- Het handelen en het gedrag van deze verkoper zijn consistent.</td>
</tr>
<tr>
<td>- De waarden van deze verkoper bevallen mij.</td>
</tr>
<tr>
<td>- De juiste principes leiden het gedrag van deze verkoper.</td>
</tr>
</tbody>
</table>
Table 10: Expertise scale (6 items)

**Expertise**

Original scale (Mayer and Davis, 1999):
- Top management is very capable of performing its job.
- Top management is known to be successful at the things it tries to do.
- Top management has much knowledge about the work that needs done.
- I feel very confident about top management's skills.
- Top management has specialized capabilities that can increase our performance.
- Top management is well qualified.

Adapted scale:
- This salesperson is very capable of performing his/her job.
- This salesperson is successful at the things he/she tries to do.
- This salesperson has much knowledge about the work that needs to be done.
- I feel very confident about this salesperson’s skills.
- The salesperson has specialised capabilities that can increase our performance.
- The salesperson is well qualified.

Translated scale:
- De verkoper is goed in staat om zijn/haar werk te doen.
- De verkoper is succesvol in de dingen die hij/zij doet.
- De verkoper heeft veel relevante kennis.
- Ik heb veel vertrouwen in de vaardigheden van de verkoper.
- De verkoper heeft de juiste kwalificaties.

4.2.2 Measuring attitudinal and behavioural outcomes

Next to the assessment of the willingness, capability and likeability of sellers by buyers, the attitudinal and behavioural outcomes of these assessments were measured. These consisted of salesperson trust, organisational trust, anticipated added value, and (anticipated) future interaction.
**Salesperson trust and organisational trust**

For the purposes of this research, trust is defined as the willingness to be vulnerable due to positive assessment of the other (Rousseau et al., 2008). Also defined as “[...] the decision to expose him/herself to the risk of potentially being harmed by the actions or decisions of the trustee [...]” (McEvily and Tortoriello, 2011: 38). This decision is preceded by assessments of the trustee.

In order to validly capture this operationalisation of trust, it was paramount to avoid scales that incorporate assessments of trustworthiness beliefs (McEvily and Tortoriello, 2011). The trust scale of Doney and Cannon (1997) does contain items that were identified to measure trustworthiness beliefs (McEvily and Tortoriello, 2011), rather than trusting intentions. For instance, one of the items (“this salesperson does not make false claims”) would overlap with the assessment of integrity. Consequently, the Mayer and Davis trust scale (Mayer and Davis, 1999) was selected, as this is deemed the best option to accurately and validly measure trust intentions (McEvily and Tortoriello, 2011).

As with the alterations of benevolence, integrity and expertise, the items were adapted to the context of this research. Furthermore, negatively-worded items were reformulated and then translated.
Table 11: Salesperson and organisational trust (both 4 items)

Salesperson and organizational trust

Original scale (Mayer and Davis, 1999):
- If I had my way, I wouldn’t let top management have any influence over issues that are important to me.
- I would be willing to let top management have complete control over my future in this company.
- I really wish I had a good way to keep an eye on top management.
- I would be comfortable giving top management a task or problem which was critical to me, even if I could not monitor their actions.

Adapted scales:
- I would not mind if this salesperson/organisation had influence over issues that are important to us.
- I would be willing to let this salesperson/organisation have complete control over our cooperation.
- I do not need to keep an eye on this salesperson/organisation.
- I would be comfortable giving this salesperson/organisation a task or problem.

Translated scales:
- Ik vind het niet erg als deze verkoper/organisatie invloed heeft op zaken die belangrijk zijn voor ons.
- Ik ben bereid om de controle tijdens samenwerking met deze verkoper/organisatie uit handen te geven.
- Ik hoef deze verkoper/organisatie niet constant in de gaten te houden.
- Ik durf een taak of probleem uit handen te geven aan deze verkoper/organisatie.

Anticipated added value

Although Doney and Cannon (1997) developed scales in order to measure value perceptions, these are not suited for the aim of this study. Doney and Cannon operationalised delivery performance, relative price/cost, and product/service performance. Firstly, these operationalisations would require specific knowledge and experience that cannot be expected after an initial business-to-business sales encounter. Secondly, is was shown (Dekker and Wright, 2012) that buyers
base their decision and consequent future behaviour not only based on the products and services involved, but also on the organisation involved. In other words, buyers take an approach in line with the service dominant logic approach (Vargo and Lusch, 2004; Sheth and Sharma, 2008).

Validated scales that measure anticipated added value were not found in extant literature. Therefore, a validated two-item scale (Briggs and Grisaffe, 2010), measuring post hoc evaluation of added value was identified and adapted. These items measured whether or not buyers feel that doing business leads to higher profits and/or lower costs.

Given that Lapierre (2000) argues that added value is derived when the accumulated benefits outweigh the sacrifices involved, a third item, capturing this notion, was added. This item was added as a reflective single-scale item that assesses overall cooperation, based on the sacrifices (e.g. price, time, effort, energy and conflict) involved (Lapierre, 2000).
**Table 12: Anticipated added value (3 items)**

**Anticipated added value**

Original scale (Briggs and Grisaffe, 2010):
- Being in a relationship with this service provider has helped my company achieve higher profits.
- Being in a relationship with this service provider has helped my company to attain a lower total cost logistics solution.
- n/a

Adapted scale:
- Cooperation will result in higher profits for our organisation.
- Cooperation will result in lower costs for our organisation.
- Cooperation will result in benefits outweighing sacrifices (Based on Lapierre, 2000).

Translated scale:
- Samenwerking zal leiden tot meer winst.
- Samenwerking zal leiden tot lagere kosten.
- Bij samenwerking zullen de baten voor ons groter zijn dan de lasten

**Anticipated future interaction**

The final construct of the conceptual framework is anticipated future interaction, as a measure to indicate the success of the initial business-to-business sales encounter. For this construct, the Doney and Cannon (1997) two-item scale was adopted. For reasons of consistency, items were changed from questions into statements. Furthermore, making a purchase was altered to cooperation, following the argument as with the operationalisation of anticipated added value (Vargo and Lusch, 2004; Sheth and Sharma, 2008; Dekker and Wright, 2012). Then, the items were translated into Dutch.
### Table 13: Anticipated future interaction scale (2 items)

<table>
<thead>
<tr>
<th>Anticipated future interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original scale (Doney and Cannon, 1997):</td>
</tr>
<tr>
<td>- How likely is it that your firm will make a purchase from this supplier during the next three years?</td>
</tr>
<tr>
<td>- How likely is it that your firm will make a purchase from this supplier during the next year?</td>
</tr>
<tr>
<td>Adapted scale</td>
</tr>
<tr>
<td>- It is likely that we will cooperate during the next three years.</td>
</tr>
<tr>
<td>- It is likely that we will cooperate during the next year.</td>
</tr>
<tr>
<td>Translated scale:</td>
</tr>
<tr>
<td>- Het is waarschijnlijk dat we gedurende de komende drie jaar zullen samenwerken.</td>
</tr>
<tr>
<td>- Het is waarschijnlijk dat we gedurende het komende jaar zullen samenwerken.</td>
</tr>
</tbody>
</table>

#### 4.2.3 Measuring moderating variables and descriptive statistics

In the literature review, a number of possible moderators of the similarity-attraction effect were identified: risk assessment, interdependence, the current status regarding intended future interaction, and position on the product-service continuum. In this section, the operationalisation of these constructs is depicted.

**Risk assessment**

Besides a more holistic operationalisation of risk assessment by buyers (Ellis et al., 2010), supply risk and profit impact were conceptualised as separate variables, based on the Kraljic Matrix (Kraljic, 1983), as these are commonly used by Dutch buyers (Nevi, 2015). This transformation resulted in the following unidimensional scales:

- Overall, cooperation with this organisation is characterised by low levels of risk (Ellis et al., 2010).
- What is your estimation of the supply risk (Kraljic, 1983)?
- What is your estimation of the financial impact (Kraljic, 1983)?
**Interdependence**

Two scales, measuring buyers’ dependency and sellers’ dependency, of the milestone article of Lusch and Brown (1996) were adapted to fit the context of the research and translated.

Buyer dependency (Lusch and Brown, 1996):
- We will be dependent on this organisation.
- It will be difficult for us to replace this organisation.
- This organisation would be costly to lose.

Seller dependency (Lusch and Brown, 1996):
- This organisation will be dependent on us.
- This organisation would find it difficult to replace us.
- This organisation would find it costly to lose us.

**Current Status**

In order to analyse the claim that the similarity-attraction effect is not unidirectional or reverse (Davis and Silk, 1972; Newcomb, 1978; Weitz, 1981; Morry, 2007), the current status of the decision-making process was captured, by probing for a positive outcome (deciding to do business), a negative outcome (deciding not to do business), or if it was still undecided.

**Product-service continuum**

Although the product-service continuum (Oliva and Kallenberg, 2003) is a widely accepted concept (Bharadwaj and Roggeveen, 2008; Sundin et al., 2008; Roy et al., 2009), no validated scales were found in extant literature. Therefore, a scale was developed by means of the C-OAR-SE procedure (Rossiter, 2002). The scale measures the position and offer holds on the product-service continuum, according to professional buyers.

Although professional buyers deal with a variety of different offers, the dimension that defines perception is tangibility. Therefore, the product-service continuum
was defined as a superordinate category object, with concrete singular sub-objects (Rossiter, 2002). Consequently, the product-service measure was operationalised as a single-item construct, asking to position an offer on a unidimensional scale with product on the one end, and service on the other.

**Descriptive statistics**

Aside from the constructs of the conceptual framework and the constructs that were identified as possible moderating variables, a number of descriptive statistics were added. Questions regarding age, gender, job tenure and industry of the buyer, and industry of the seller were included in the questionnaire. For capturing industries, the standard coding of the Dutch Chamber of Commerce (Kamer van Koophandel, 2014) was used.

**4.2.4 Formatting scales**

It is recognized that rating scales influence outcomes. But there is no conclusive manner to determine the optimal number of categories that should be used (Shaftel and Nash, 2012).

Generally, five, seven and ten response categories are most favoured by respondents, and are considered easy to use (Preston and Colman, 2000). Rating scales using lesser categories than five, or over eleven, perform poorly (Preston and Colman, 2000). When every category is labelled, extreme response styles are mitigated (Kieruj, 2012). Current thinking (Preston and Colman, 2000; Saunders et al., 2015) encourages the use of one type of scale in order to avoid confusion.

A fully labelled five-point scale was chosen. This was done because most scales were derived from studies of Doney and Cannon (1997) and Mayer and Davis (1999). The Doney and Cannon study used a seven-point Likert scale, while Mayer and Davis used a five-point scale. When respondents are unfamiliar with a specific questionnaire, a five-point scale is preferred (Kieruj, 2012).
### 4.2.5 Operationalisation table

In this section, a table is provided, which gives an overview of all operationalised core constructs, their respective items, and the scales used. Also, it is indicated when scales were adapted and whether scales are reflective or formative.

*Table 14: Operationalisation table*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Similarity</strong></td>
<td>This salesperson shares similar interests with me</td>
<td>Reflective</td>
</tr>
<tr>
<td>(adapted)</td>
<td>This salesperson has values similar to me</td>
<td>(5 point)</td>
</tr>
<tr>
<td>(Doney and Cannon, 1997)</td>
<td>This salesperson is very similar to me</td>
<td></td>
</tr>
<tr>
<td><strong>Benevolence</strong></td>
<td>This salesperson is very concerned about our welfare</td>
<td>Reflective</td>
</tr>
<tr>
<td>(adapted)</td>
<td>Our needs and desires are very important to this salesperson</td>
<td>(5 point)</td>
</tr>
<tr>
<td>(Mayer and Davis, 1999)</td>
<td>This salesperson would not knowingly do anything to hurt us</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This salesperson really looks out for what is important to us</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This salesperson will go out of its way to help us</td>
<td></td>
</tr>
<tr>
<td><strong>Integrity</strong></td>
<td>This salesperson has a strong sense of justice</td>
<td>Reflective</td>
</tr>
<tr>
<td>(adapted)</td>
<td>I never have to wonder whether this salesperson will stick to his/her word</td>
<td>(5 point)</td>
</tr>
<tr>
<td>(Mayer and Davis, 1999)</td>
<td>This salesperson tries hard to be fair in dealings with others</td>
<td></td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>This salesperson has the clout to get his/her way with the supplier</td>
<td>Reflective</td>
</tr>
<tr>
<td>(adapted)</td>
<td>This salesperson is one of this supplier’s most important salespeople</td>
<td>(5 point)</td>
</tr>
<tr>
<td>(Doney and Cannon, 1997)</td>
<td>This salesperson has power in his/her firm</td>
<td></td>
</tr>
<tr>
<td><strong>Expertise</strong></td>
<td>This salesperson is very capable of performing his/her job</td>
<td>Reflective</td>
</tr>
<tr>
<td>(adapted)</td>
<td>This salesperson is successful at the things he/she tries to do</td>
<td>(5 point)</td>
</tr>
<tr>
<td>(Mayer and Davis, 1999)</td>
<td>This salesperson has much knowledge about the work that needs to be done</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel very confident about this salesperson’s skills</td>
<td></td>
</tr>
<tr>
<td><strong>Likeability</strong></td>
<td>This salesperson is friendly</td>
<td>Reflective</td>
</tr>
<tr>
<td>(adapted)</td>
<td>This salesperson is nice to us</td>
<td>(5 point)</td>
</tr>
<tr>
<td>(Doney and Cannon, 1997)</td>
<td>This salesperson is someone we like to have around</td>
<td></td>
</tr>
</tbody>
</table>
### Salesperson trust (adapted) (Mayer and Davis, 1999)

- I would not mind if the salesperson had influence over issues that are important to us. Reflective (5 point)
- I would be willing to let this salesperson have complete control over our cooperation. Formative (5 point)
- I do not need to keep an eye on this salesperson. Formative (5 point)
- I would be comfortable giving this salesperson a task or problem. Formative (5 point)

### Organisational trust (adapted) (Mayer and Davis, 1999)

- I would not mind if this organisation had influence over issues that are important to us. Reflective (5 point)
- I would be willing to let this organisation have complete control over our cooperation. Formative (5 point)
- I do not need to keep an eye on this organisation. Formative (5 point)
- I would be comfortable giving this organisation a task or problem. Formative (5 point)

### Anticipated added value (Briggs and Grisaffe, 2010)

- Cooperation will result in higher profits for our organisation. Formative (5 point)
- Cooperation will result in lower costs for our organisation. Formative (5 point)
- Cooperation will result in benefits outweighing sacrifices (Based on Lapierre, 2000; added for analysis only). Formative (5 point)

### Anticipated future interaction (adapted) (Doney and Cannon, 1997)

- It is likely that we will cooperate during the next three years. Reflective (5 point)
- It is likely that we will cooperate during the next year. Reflective (5 point)

## 4.3 Data collection

Data collection in business-to-business in general is difficult (Brennan et al., 2014), but collecting data from professional buyers proved to be extremely challenging. This resulted in data collection by means of three different approaches. This section describes the sample, the sampling methods, sought sample size, data collection procedure and data management of this research project.

### 4.3.1 Sampling

**Population**

Since earlier studies focussing on interpersonal perception showed that cultural differences can severely influence causal relationships (Albright et al., 1997), a single cultural context was chosen. In this case the cultural context chosen was the Dutch culture. The number of people involved in professional buying in the Netherlands is estimated at 60,000 (NEVI, 2011).
**Sample frame**

Although the population appears to be large enough to provide a random sample, this was not possible. There was no sampling frame (Heckathorn, 2002; Saunders et al., 2015) available that both covered the population and that was available to the researcher. The membership list of NEVI (the chartered institute of professional buyers in the Netherland) only contains about 10% of the population. Furthermore, this membership list was not at the disposal of the researcher. No other method was available or known to the researcher as a means of construing an inclusive sampling frame.

**Samples**

The inclusion criteria were that respondents were full-time professional buyers (or other similar job descriptions); spend the majority of their job actually buying; were managers of purchasing departments and were actively involved in buying cycles; or consultants that were actively involved in buying cycles. Furthermore, every respondent had to be active in the Dutch business context.

There is a recognised problem with regards to attaining sufficient respondents in business-to-business research (Brennan et al., 2014). Given that buyers are constantly approached by sellers, this was anticipated to be an even greater challenge for this research project. Due to these circumstances, professional buyers were deemed a hidden population (Heckathorn, 2002). In order to overcome this issue, and the lack of a sample frame, three non-probability sampling methods were deployed (Bryman and Bell, 2015; Saunders et al., 2015). The methods used were chain-referral sampling (Goodman, 1961), a LinkedIn campaign driven online survey, and an online survey in cooperation with NEVI.

**Chain-referral survey**

The first sampling technique executed was a chain-referral sampling method, which is also referred to as snowball sampling (Goodman, 1961). Respondent driven sampling (Heckathorn, 1997, 2002) was considered. This method includes
adding secondary incentives, such as rewards for the group, besides any primary incentives. This creates a group pressure which, in turn, minimises the risk of biases as a result of chain-referral sampling (Heckathorn, 1997). However, this approach was discarded, because many Dutch professional buyers are bound by company and individual standards regarding incentives (Daams and Gelderman, 2008). It was concluded that adding a secondary incentive would increase reluctance to participate.

Multiple waves of seeds, or initial respondents (Heckathorn, 2011), were approached until the minimum number of respondents needed was reached in conjunction with the other two sample methods. When potential respondents indicated their informed consent (Cho and LaRose, 1999), they were sent a link to the self-administered online survey (Dillman et al., 2011).

**LinkedIn survey**

Due to the anticipated difficulties concerning the desired number or respondents, paid marketing research services, using business panels, were approached. All three service providers approached indicated that, using the inclusion criteria as stipulated, they would not be able to a comprehensive dataset of 150 completed surveys. None of the service providers was willing to guarantee any minimum of completed surveys, while charging between €6,000 and €13,000. This reemphasised the observation that professional buyers should be considered a hidden population (Heckathorn, 2002).

Another option was recruiting self-selected survey takers (Sibona and Walczak, 2012), using a payed ad campaign on LinkedIn. LinkedIn provided the possibility to ensure that self-selected participants complied with the inclusion criteria by means of in-house filters. The location was set to only include people from The Netherlands, and job function set to exclude anything other than purchasing. Although relatively new, other researchers have also used this data collection tool (Bontcheva et al., 2013; Galster and Tofan, 2014; Nair and Vara, 2015).
**NEVI survey**

Although contact with NEVI did not result in cooperation, a referred contact of the chain-referral sampling was willing to provide access. As a result, a short explanation of this research project and a link to the online survey were posted as a news item on their website, and in the July 2015 edition of the NEVI e-newsletter.

Although, these respondents could also be considered referrals, resulting from a seed of the chain-referral sample, this sample is explicitly mentioned. The reason for this is that respondents of the chain-referral sample were judged individually by the researcher, stated as deliberate sampling (Sibona and Walczak, 2012). The respondents of the NEVI were, however, self-selected (Dillman et al., 2011; Sibona and Walczak, 2012).

**Incentive**

A raffle was held for one hundred respondents that provided contact details. The prize was a €50 bol.com gift voucher. By not providing contact details, respondents were able to opt out, in order to mitigate any negative effects due to individual or company standards (Daams and Gelderman, 2008).

**Sample size**

The desired sample size was determined by defining the type and number of variables, ascertaining the required significance level (Type I error) and statistical power (Type II error), and estimating the expected variance, in relation to the statistical method chosen (Cohen, 1992; Bartlett et al., 2001; Hair et al., 2016).

Partial Least Squares (PLS) structural equation modeling was selected as the primary method of statistical analysis. When using PLS, the larger of either the number of incoming paths to any of the endogenous variables, or the number of items of any of the latent formative constructs, influence the needed number of respondents (Hair et al., 2011). The measurement model consists of one
formative construct with two connections. The largest number of connections in the measurement model is five connections.

As a result, approximately 150 cases would suffice in order to detect significant relations for at least a 5% significance level, and a statistical power over 0.80 (Cohen, 1992) for detecting Type II errors in insignificant relationships, when 10% of the variance of a construct is explained (Hair et al., 2016). For constructs with less than five connections, fewer cases were needed. When 200 cases were to be collected, it was possible to assume that all constructs could be analysed with a significance of 1% and 0.80 statistical power, when 10% of the variance of a latent construct was explained by the model (Hair et al., 2016).

Coefficients of determination between 0.1 and 0.2 are common in this field of research (Gremler and Gwinner, 2008; Eggert and Serdaroglu, 2011; Hair et al., 2016). Furthermore, the anticipated use of multigroup analyses based on segmentation would lead to smaller subgroups. Therefore, the aim was to collect in between 150 and 200 completed surveys.

4.3.2 Data gathering procedures

An online survey, consisting of all the operationalised constructs was built and published with the online survey tool Survey Gizmo. When respondents opened the online survey, they were first asked to recall a recent initial sales encounter in a Dutch business context, and to have that encounter in mind while completing the survey. This ensured that a specific dyad (Evans, 1963) was the unit of analysis. This was critical in order to achieve the aim of measuring assessments and tendencies (conscious or unconscious) within a specific dyad, irrespective of any espoused theories of any theories-in-use (Argyris, 1995).

As early abandonment of respondents was anticipated, the items representing the core constructs of the conceptual framework were presented first, followed by the demographics and identified moderators.
A pilot study was conducted by asking eight academics and five professional buyers to take the survey. Next, the experiences of these pilot respondents were individually discussed, either face-to-face or via e-mail. This resulted in rephrasing of the introduction and some of the directions in the survey, and the detection of a number of typographical errors.

The chain-referral sample respondents were contacted via e-mail and telephone, with only a limited explanation of the aim of the study. This was to prevent respondents from steering their answers in the direction of their opinions or espoused theories regarding the similarity-attraction effect. They were told that the aim of the study was to identify “what influences the decision to continue to do business with a specific supplier after an initial encounter”. Both the LinkedIn advertisement, and the news item on the NEVI website and newsletter, contained a similar general description of the aim of the study.

If potential chain-referral respondents agreed to cooperate, they were sent an e-mail that contained a link to the survey on the SurveyGizmo site. The LinkedIn ad, and the NEVI news item and e-newsletter, also contained a link that redirected respondents to the survey.

The chain-referral respondents were sent an individual invitation. This made it possible to monitor completion. When a respondent did not complete the survey within a week, or the date that was agreed upon, either a reminder was sent or the potential respondent was contacted by telephone. This was repeated until the respondent completed the survey or indicated that he or she no longer wanted to participate. After completion, respondents were contacted again and asked for possible other respondents that were also professional buyers.

4.3.3 Data management

The data of the surveys was collected, held and managed on the SurveyGizmo server until data collection was completed. The surveys and datasets were shielded with a password known only to the researcher. After data collection, the
datasets were exported into an Excel file and stored on the laptop of the researcher, and backed up on servers of HZ University of Applied Sciences.

For the chain-referral sample, a log of who referred who was kept. This was another Excel file collected, stored, and managed on the laptop of the researcher. Again, a backup was stored on the HZ servers. Both the laptop and access to the HZ servers were password protected.

Before data analysis began, the data sets were imported into Excel and coded. Next, the cases were checked for abnormalities, outliers and missing data. Cases that contained the same value for every question were deleted.

4.4 Data analysis

Partial Least Squares was used to analyse the data. The software used were SmartPLS (Ringle et al., 2015) and IBM SPSS (IBM Corp., 2015). The aim was to investigate the similarity-attraction effect holistically, analysing mediation, moderation, and higher-order constructs simultaneously. Therefore, methods that are able to study only a part of the conceptual framework (Preacher and Hayes, 2004; Preacher et al., 2007) were not considered, leaving structural equation modeling as an appropriate option (Hair et al., 2011).

As the aggregated sample of this study is a non-probability sample, and has a relatively small sample size, a statistical approach that has soft distributional assumptions was needed (Hair et al., 2011). Although other structural equation modeling tools are used to handle comparable data just as accurately as PLS-oriented tools (Goodhue et al., 2006) in practice, this theoretically rules out covariance-based approaches, as these require normally distributed data (Esposito Vinzi et al., 2010). Another argument for choosing PLS variance based SEM, instead of covariance based alternatives, is that PLS is most suited for theory development and is best used in an exploratory research context, while covariance based SEM techniques are more suited for testing and confirming existing models (Henseler et al., 2009; Esposito Vinzi et al., 2010). Lastly, PLS-
SEM can handle the presence of single item constructs, as well as combination of reflective and formative constructs (Gefen et al., 2011; Hair et al., 2016).

The application of PLS-SEM is not undisputed (Ringle et al., 2012; Henseler, Dijkstra, et al., 2014). The intial criticism that the PLS-SEM is a technique more suited to smaller sample sizes is a myth (Marcoulides and Saunders, 2006; Rönkkö and Evermann, 2013). However, those at the forefront of recent PLS-SEM development hold that the PLS-SEM algorithm converges more often with smaller samples, than covariance based algorithms (Henseler, Dijkstra, et al., 2014). Furthermore, the complexity (e.g. total number of constructs and items) of the model do not inflate the required sample size (Hair et al., 2011).

An often stated second criticism is that PLS-SEM lacks an overall goodness-of-fit index (Hair et al., 2016). This point is not rebutted by PLS advocates (Henseler and Sarstedt, 2013). Instead, the predictive power of a model should be used as an indication of model validity, and leads to the argument that PLS is better fitted for model development and model-based prediction in specific contexts, rather than model testing. PLS does not aim to reproduce the covariance matrix of a sample, but aims at consistency at large (Esposito Vinzi et al., 2010). In a similar vein, it is posited that PLS-SEM is not suited for null hypothesis significance testing (Rönkkö and Evermann, 2013). When using basic bootstrapping, this could be an issue. However, most PLS software packages do not use basic bootstrapping, but normal bootstrapping (Henseler, Dijkstra, et al., 2014).

The final issue identified is the lack of rigorous and informed use of PLS-SEM, specifically regarding statistical power and the use of higher-order constructs (Ringle et al., 2012; Lee and Cadogan, 2013). This can only be resolved by providing proper guidance and cognisant use (Hair et al., 2012, 2016).

4.4.1 Measurement model analysis

In PLS SEM analysis, the first step was to assess the measurement model (Götz et al., 2010; Hair et al., 2016). During this phase the internal consistency of every scale was tested by means of the composite reliability test and Cronbach’s Alpha.
Next, the outer loadings of the items in relation to their respective scales were tested. Then, the validity of the scales was further established by checking whether the Average Variance Extracted (AVE) in each scale was above threshold level. Until recently, the next step would have been establishing discriminant validity by means of the Fornell Larcker criterion (Fornell and Larcker, 1981). Instead, the more current and accurate HTMT criterion was used (Henseler, Ringle, et al., 2014) to assess discriminant validity. The final measurement model valuation was checking for collinearity between latent constructs through the use of the Variance Inflation Factor test (Hair et al., 2016). Furthermore, a principal components analysis (Leech et al., 2015) was performed to verify or modify the latent constructs that mediate the relationship between salesperson similarity and salesperson trust.

4.4.2 Structural model analysis

After the measurement model was evaluated, the structural model was assessed. Running the PLS algorithm provided path coefficients and the variance explained of the different constructs (Hair et al., 2016). By means of bootstrapping, the significance of the relationships was estimated (Esposito Vinzi et al., 2010).

In case the conceptual framework indicated that multiple constructs influenced an endogenous construct, effect sizes were calculated (Hair et al., 2016). The hypothesised mediating and moderation constructs were checked by rerunning the PLS algorithm and bootstrapping.

**Higher-order constructs**

Furthermore, the hypothesised higher-order constructs of capability and willingness (Montoya and Horton, 2014) were tested using a reflective-formative higher-order construct setup (Becker et al., 2012; Ringle et al., 2012). The Average Variance Extracted within the higher-order constructs was used to assess the fit of the hypothesised hierarchical relationships of the constructs involved (Wetzels et al., 2009).
The higher-order constructs were assessed with a two-stage approach, as salesperson similarity was conceptualised to precede and influence the higher-order constructs (Henseler and Chin, 2010). Firstly, the repeated indicator approach is used to assess the fit of the higher-order construct, without the antecedent salesperson similarity present, in order to eliminate its influence on this assessment (Ringle et al., 2012). When the number of items per lower-order construct differ, the repeated indicator approach could be biased (Becker et al., 2012; Dekker and Snijders, 2014). Therefore, the lowest loading items of the overrepresented lower-order construct were detected and deleted, to identify possible differences in higher-order construct fit or changes in path coefficients (Dekker and Snijders, 2014). If assessed positively, the latent variable scores of the lower-order constructs were then used as manifest variables or items for the higher-order constructs (Ringle et al., 2012; Hair et al., 2016).

**Unobserved heterogeneity**

Given that the assumption that empirical samples are homogeneous is considered unrealistic (Ringle et al., 2010), whether or not the dataset contained segments based on significant differences of the structural model estimates was carefully investigated. This is also referred to as a model-based clustering technique.

As opposed to conventional segmentation, this procedure does not use a combination of a priori identified variables, because these “[…] observable characteristics often gloss over the true sources of heterogeneity.” (Ringle et al., 2010: 26). Also, clustering techniques were considered inappropriate, as these techniques cannot identify differences in the relationships between latent variables (Ringle et al., 2010).

Finite Mixture Partial Least Squares (FIMIX-PLS) was employed to identify possible unobserved heterogeneity (Ringle et al., 2010; SmartPLS, 2016). The significance of differences in path coefficients was tested by means of a multigroup analysis (Sarstedt, Henseler, et al., 2011; Hair et al., 2016). Next, a
priori established variables, that were identified during the literature review as potential explanations of heterogeneity, were imposed on the model-based segments. Possible significant differences between the segments based on these variables were analysed by means of Chi-Square testing in IBM SPSS (IBM Corp., 2015).

4.4.3 Mediation and moderation

Full mediation was indicated when the relationship between the two mediated constructs was significant, without the mediating construct or constructs present, and resulting in an insignificant relationship after adding the mediation constructs or constructs, provided that the relationships between the mediated constructs and the mediator or mediators were significant (Baron and Kenny, 1986; Hair et al., 2016). Partial mediation was indicated when adding the mediator or mediators still resulted in a significant relationship between the mediated constructs, but reduced the magnitude of the similarity-salesperson trust relationship significantly (Preacher and Hayes, 2004; Preacher et al., 2007). The significance and size of mediation effects were tested by means of bootstrapping, as the product-of-coefficients approach of Sobel (1982) does not meet normality requirements (Preacher and Hayes, 2008). Moderation was inferred when the interaction effect on an endogenous construct of an exogenous construct, and a moderator proved to be significant (Hair et al., 2016). All significance levels were tested through a bootstrapping procedure using five-thousand subsamples of the original dataset (Hair et al., 2016).

4.5 Validity, reliability and endogeneity

Validity of the study was optimised by using validated scales. Adaptations were only made when the items were not fitting the context of the study. Furthermore, the survey was checked by both praxis representatives, as well as academics that were familiar with the theoretical concepts involved, before executing a pilot study. Post hoc, validity was checked by means of statistical procedures, as prescribed for Partial Least Squares analysis.
Through qualifying questions in the chain referral sample, making use of the e-newsletter of NEVI, and selective exposure of the advertisement on LinkedIn by only including the job description of purchasing; the chances of people not fitting the inclusion criteria were kept to a minimum. As the chances of members of the population participating in the study differed, the sample was treated as a non-probability sample (Saunders et al., 2015). Reliability of the study should therefore be judged accordingly, because unknown biases could have been introduced (Rivers et al., 2003). Self-selection in the NEVI e-newsletter sample and the LinkedIn sample were also identified as a possible bias (Sills and Song, 2002). However, combining three different sample strategies could also have increased reliability as more subgroups of the targeted populations were engaged (Heckathorn, 1997). Significance levels and power (Cohen, 1992) were calculated and reported, for post hoc analysis purposes.

It is probable that this research suffers from endogeneity due to omitted variables, simultaneous causality, or error-in-variables (Hamilton and Nickerson, 2003; Bascle, 2008), as observational cross-sectional data is used (McIntosh et al., 2014). As with many studies in sales (Albers et al., 2015), an experiment was deemed not feasible, as the core independent variable (perceived similarity) cannot be controlled with regards to a priori knowledge. Therefore, the risk of inconsistent results due to endogeneity (Antonakis et al., 2010) was considered an explicit limitation of this exploratory research.

4.6 Ethics

Ethics approval was granted for this study by the Humanities, Social and Health Sciences Research Ethics Panel at the University of Bradford on 12th March 2013, based on a research proposal outlining the research method of this study. Moreover, the researcher adhered to the code of conduct of Dutch universities of applied sciences (Andriessen et al., 2010). Procedures of data collection, data management, and reporting were aimed at preventing harm to either respondents or the salespeople that were the object of their analysis. All results were reported
in such a way that preserved the anonymity of participants. Respondents were briefed beforehand in order to ensure informed consent. Furthermore, it was indicated that respondents could contact the researcher in order to revoke their cooperation, which did not happen. In no instance was it known to the researcher which salesperson or supplier the respondents had in mind when filling out the survey.
Chapter 5

Results:

The aim of this study was to better understand the role of the similarity-attraction effect in initial business-to-business sales encounters. Sales practitioners and trainers hold that engaging in similarity enhancing behaviour will result in more favourable outcomes. However, empirical evidence was inconclusive on this point. A survey was compiled and held, based on extant social psychology and marketing literature. Firstly, the sampling results are described, and descriptive statistics are provided, in order to depict the respondents of this study. This was followed by an outlier analysis, check for normality, and principal components analysis of the proposed mediating variables.

Based on current thinking in social psychology, this study examined if similarity influenced attitudinal (salesperson trust, organisational trust, and anticipated added value) and behavioural outcomes (future interaction) of a sample of 165 professional buyers in the Netherlands as a result of an initial face-to-face meeting, and, if so, whether this relationship was mediated by willingness (benevolence and integrity), capability (power and expertise), and likeability assessments of salespeople by these buyers.

Two approaches were developed. The first approach treated benevolence, integrity, power, and expertise as separate constructs. The second approach held that benevolence and integrity were lower-order constructs of the higher-order construct of willingness, and power and expertise of capability.

Next, it was assessed whether an unobserved heterogeneity analysis provided more insight. Based on these results, it was investigated whether risk perception, interdependence, and the position on the product-service continuum of the offer concerned moderated the relationships between similarity and the proposed mediators. Additional analysis comprised the assessment of the competing attraction-similarity hypothesis. The aggregated findings were used to address the hypotheses.
5.1 A description of the sample

In total, 259 professional buyers from the Netherlands started the online survey on SurveyGizmo. Respondents were included in the aggregated sample if they at least filled in all items that measured the core constructs of the conceptual framework. Answers were not taken into account if respondents aborted earlier than this stage, or if their answers were all identical. This resulted in an aggregated sample of 163 cases from the three samples. However, two respondents abandoned the survey, missing only the items concerning the last construct of the conceptual framework (e.g. anticipated future interaction). As two missing values out of 165 was well within the limits of the advised threshold level of 5% (Hair et al., 2016), these three cases were included in the sample. The remainder of the respondents that abandoned before answering the future interaction items, were all discarded. This resulted in an aggregated sample of 165 cases: the chain-referral sample consisted of seventy-six cases, the LinkedIn sample of fifty-three cases, and the NEVI sample of thirty-six cases.

Table 15: Aggregated sample

<table>
<thead>
<tr>
<th>Sample</th>
<th>Respondents</th>
<th>Discarded</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain-referral sample</td>
<td>92</td>
<td>16</td>
<td>76</td>
</tr>
<tr>
<td>LinkedIn sample</td>
<td>97</td>
<td>44</td>
<td>53</td>
</tr>
<tr>
<td>NEVI sample</td>
<td>71</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td><strong>Aggregated sample</strong></td>
<td><strong>259</strong></td>
<td><strong>94</strong></td>
<td><strong>165</strong></td>
</tr>
</tbody>
</table>

The chain-referral data was collected between April and August 2015. The LinkedIn campaign started on 4th May 2015, and was stopped on 1st September 2015. In total the LinkedIn campaign resulted in 375,438 impressions. Of 297 clicks, ninety-seven filled in at least one question. In total, €626.76 was invested in the campaign by the researcher. The NEVI newsletter was sent out on 1st July 2015, the last survey was completed on 10th July 2015.
**Missing data**

The core constructs were compulsory questions; the remaining questions of the survey were not. Therefore, the extent of missing data per question differed. The most avoided questions were the industry of the respondent and the industry of the seller. Of the 165 included cases, forty respondents did not answer either of these questions. Respondents were asked to choose from twenty-one answers, covering the official SBI (Standard Business Index), as used by the Dutch Chamber of Commerce (Kamer van Koophandel, 2014). Two respondents even contacted the researcher with comments about these questions, stating that a simpler set-up would have been appreciated. Due to the possible biases introduced by these questions, moderating effects caused by industry differences were not analysed.

Three respondents did not answer whether they already had decided to do business or not. Twenty respondents abandoned when age was probed. One additional respondent left the survey, when gender was queried. Apart from the industry questions, this totalled twenty-two cases with missing data for the remainder of the questions, with the exception of one person not answering the questions measuring perceived market risk and financial risk. These questions were answered by 142 respondents.

The moderating effects of constructs consisting of more than three cases with missing data were calculated by means of pairwise deletion of missing data treatments (Hair et al., 2016). The number of cases involved was reported.

**Descriptive statistics**

The average age of the respondents was forty-five years, with a standard deviation of ten years. The majority of the respondents were male. 13.2% of the buyers were female. On average, respondents had sixteen years of experience as a buyer. The most inexperienced buyer was still in his first year. The most experienced respondent had forty years of experience as a professional buyer.
The largest group of respondents were full-time buyers (41%). 14% indicated employment where buying constituted the most important part of the job. Managers that were actively engaging with sellers comprised 37%. The remaining group were self-employed consultants, who provided operational buying services.

Table 16: Nominal demographics of the sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (N = 144)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>125</td>
<td>86.8 %</td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>13.2 %</td>
</tr>
<tr>
<td>Job description (N = 165)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time buyer</td>
<td>67</td>
<td>40.6 %</td>
</tr>
<tr>
<td>Buying is the most important task</td>
<td>23</td>
<td>13.9 %</td>
</tr>
<tr>
<td>Manager with operational buying tasks</td>
<td>61</td>
<td>37.0 %</td>
</tr>
<tr>
<td>Other (mainly self-employed buyers)</td>
<td>14</td>
<td>8.5 %</td>
</tr>
</tbody>
</table>

Table 17: Scale demographics of the sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average</th>
<th>S.D.</th>
<th>Lowest</th>
<th>Highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (N = 145)</td>
<td>45 years</td>
<td>10.14</td>
<td>23</td>
<td>64</td>
</tr>
<tr>
<td>Buying experience (N = 142)</td>
<td>16 years</td>
<td>9.57</td>
<td>0.5</td>
<td>40</td>
</tr>
</tbody>
</table>

Based on 125 respondents that completed the industry questions, it was found that 32% of the respondents were employed in manufacturing; 15.2% in wholesale and retail; 12% in services; 11.2% in construction; 7.2% in Healthcare 6.2% in governmental organisations; 6.2% in energy and 9.6% in various other industries. While filling in the survey, 40% of the respondents had a seller in mind that was active in the same industry. The most common industries of the seller, when buyers had a seller in mind, that was dissimilar to their own industry, were services, manufacturing, and information and communication technology.
Buyer-seller relationships were visualised based on perceived financial risk and market risk (Kraljic, 1983), and buyer-seller interdependency (Caniëls and Gelderman, 2007). Most types of buyer-seller relationships were represented in the sample and spread evenly.

![Kraljic matrix (1983) representation of the dyads in the sample](image)

*Figure 9: Kraljic matrix (1983) representation of the dyads in the sample*

![Buyer-seller interdependency representation of the dyads in the sample](image)

*Figure 10: Buyer-seller interdependency representation of the dyads in the sample (Caniëls and Gelderman 2007)*
5.2 Model assessment preparation

The dataset was coded and prepared in Excel and imported as a CSV-file in SPSS 23 (IBM Corp., 2015), after exporting all data from SurveyGizmo. Before a full model assessment was performed, additional dataset and model preparation was executed. This comprised an outlier analysis, a distribution analysis, a check for formative measures, and a principal components analysis. Based on these checks, the dataset and model were adjusted.

5.2.1 Dataset preparation

Before assessing the measurement model, the dataset was checked for outliers (Hair et al., 2016), distribution normality (Esposito Vinzi et al., 2010), and the model was assessed for formative measures.

Outliers

For every item that was used to measure the conceptual model, a box plot was created in SPSS 23 (IBM Corp., 2015). Three cases were identified and deleted from the dataset, as these cases were identified as outliers in several items. The first item of the salesperson likeability measure “this salesperson is friendly” stood out, as only eleven respondents of the 162 remaining cases deviated from the answer "agree". In sixteen instances, a case was identified as an outlier in one item. As all constructs were measured with multiple items, it was decided to refrain from deletion of these cases.

Normal distribution

Normality of the data distribution was analysed with graphical methods (e.g. histograms and QQ-plots), skewness and kurtosis calculations, and formal testing in SPSS 23 (IBM Corp., 2015). Shapiro-Wilk testing was used as a formal test, as this test performs best with a sample size of 162 cases (Razali and Wah, 2011).

In total, three items in expertise and likeability had skewness scores over -1 and 1. Five items had kurtosis scores that deviated more than 1.0 from zero:
expertise, likeability salesperson trust and organisational trust. Twenty-one items of the remaining six constructs all had scores between -1.0 and 1.0. Although, in number of items normal distribution was approximated in the graphical representations, none of the distributions passed the required levels of the Shapiro-Wilk test. Therefore, it was concluded that the data of the items was not normally distributed, and a statistical method with soft distributional assumptions was required (Henseler et al., 2009).

**Source consistency**

In order to verify consistency between the three samples, an ANOVA test was performed. To prevent introducing problems due to chance, a Bonferroni correction was applied. Of the thirty-seven items of the nine constructs of the conceptual framework, there were two instances in the benevolence construct where the samples differed significantly. For the first benevolence item, a significant difference between the LinkedIn and Nevi sample (p-value = 0.03) was found. Concerning the second item of benevolence, a significant difference was identified between the chain-referral sample and Nevi sample (p-value = 0.43).

As both were part of the benevolence construct, an overall assessment of the benevolence construct was performed, incorporating all five items and using Bonferroni correction. This showed acceptable scores. Therefore, it was concluded that source consistency over the three samples was established.
The subsequent step was to determine whether items reflected constructs, or whether items and constructs had a formative relationship. None of the scales used were explicitly identified as formative scales by the authors (Lusch and Brown, 1996; Doney and Cannon, 1997; Mayer and Davis, 1999; Briggs and Grisaffe, 2010).

However, concluding that all of the scales were reflective, based on these findings alone, was insufficient as many disputable calls have been made in the past.
regarding reflective and formative measures (Jarvis, 2003; Diamantopoulos and Siguaw, 2006). All of the scales were re-examined in order to assess if the items reflect the latent construct, or form/cause the latent construct. With the exception of the anticipated added value scale (Briggs and Grisaffe, 2010), all of the scales within the conceptual framework were assessed to be reflective in nature.

The adapted anticipated added value scale comprises two items: “cooperation will result in higher profits for our organisation”; and “cooperation will result in lower costs for our organisation” (Briggs and Grisaffe, 2010). Although Briggs and Grisaffe treated their two-item scale as reflective (Briggs and Grisaffe, 2010), it was argued that higher profits or lower costs are two distinct causes that form added value perceptions. A third item (“cooperation will result in benefits outweighing sacrifices”, based on Lapierre (2000)) was used to able to establish convergent validity (Hair et al., 2016).

### 5.2.2 Principal components analysis

A principal components analysis was performed, as to evaluate the congruence between hypothesised scales and post hoc inductively defined scales, regarding the proposed mediators of the similarity-salesperson trust relationship.

A multi-mediator model (Preacher and Hayes, 2008), consisting of benevolence, integrity, power, expertise, and likeability was hypothesised to mediate the relationship between similarity and salesperson trust. The PLS procedure provided results comparable with a confirmatory factor analysis (Brown, 2015), stating whether all items were correctly assigned to their respective scales, within the proposed model. As a result, it did not check whether the dataset contained an alternative explanation. Therefore, a principal components analysis (Leech et al., 2015) was performed.

The extraction method employed was a principal components analysis because the normality assumption was considered violated (Leech et al., 2015). Also, a principal components analysis suited the exploratory nature of this study in that it included every variance, as opposed to exploratory factor analysis (Brown, 2015).
Furthermore, this was in line with the PLS approach, which was used for model assessment. In order to achieve an interpretable outcome, the oblique rotation method promax was used (Tabachnick and Fidell, 2013), as the literature review indicated possible correlation between the factors.

All twenty-two items of the five a priori operationalised mediating constructs were used. The overall fit of the principal components analysis was deemed satisfactory, with a Kaiser-Meyer-Olkin (KMO) measure over 0.70, and a significance level under 0.05, according to the Bartlett test. The use the oblique promax rotation was considered justified when correlations higher than 0.32 occurred (Tabachnick and Fidell, 2013). Components with an eigenvalue higher than 1.0 were reported. Loadings lower than 0.30 were suppressed, as these were considered too low (Leech et al., 2015). When items loaded on more than one component, the item was assigned to the component with the highest related loading.

**Results**

Correlations over 0.32 were identified in the component correlation matrix. The solution provided six components with an eigenvalue higher than 1.0, as opposed to the initial five scales in the conceptual model. The KMO score was considered good (0.84) and significant (Bartlett test p-value: 0.000). In total, these six components explained over 70% of the variance within the 22 items.

Table 19: Overview factors principal component analysis of mediators

<table>
<thead>
<tr>
<th>Components</th>
<th>Initial Eigenvalues</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td>7.530</td>
<td>34.225</td>
<td>34.225</td>
</tr>
<tr>
<td>Component 2</td>
<td>2.245</td>
<td>10.203</td>
<td>44.428</td>
</tr>
<tr>
<td>Component 3</td>
<td>1.924</td>
<td>8.747</td>
<td>53.175</td>
</tr>
<tr>
<td>Component 4</td>
<td>1.447</td>
<td>6.577</td>
<td>59.751</td>
</tr>
<tr>
<td>Component 5</td>
<td>1.239</td>
<td>5.633</td>
<td>65.385</td>
</tr>
<tr>
<td>Component 6</td>
<td>1.054</td>
<td>4.793</td>
<td>70.178</td>
</tr>
</tbody>
</table>
Under the condition that loadings below 0.30 were discarded, the items of power and likeability only loaded on their respective latent construct. One item of expertise had a high loading on the expertise component (0.715) and a marginal loading on the newly identified component (0.303). As the item was assigned to the construct with the highest related loading, all proposed expertise items were considered relevant for the that construct.

Benevolence had the lowest eigenvalue (1.054) and had one uniquely-related item. Two other benevolence items had two relevant loadings, but loaded more on the benevolence component than on any other. Two items did not. Four of the proposed integrity items loaded only on the integrity component. One item loaded only on the new component. One item loaded more (0.554) on the integrity component than on the new component (0.379), and was assigned to the integrity component.

As a result, the new component consisted of two items that were initially assigned to the benevolence scale, and one item of the integrity scale. Three other items, originating from the benevolence, integrity, and expertise scales, also loaded on this component, but not as much as on their respective components. Consequently, these were assigned to their components of origin. Based on these findings, a third willingness construct was identified as willingness behaviour and included in the model (see 6.2 for a detailed discussion).
### Table 20: Pattern matrix of item loading per component

<table>
<thead>
<tr>
<th>Components</th>
<th>Integrity</th>
<th>Expertise</th>
<th>Likeability</th>
<th>Power</th>
<th>Willingness</th>
<th>Behaviour</th>
<th>Benevolence</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI6</td>
<td>0.863</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI5</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI1</td>
<td>0.765</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI4</td>
<td>0.701</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI3</td>
<td>0.554</td>
<td></td>
<td></td>
<td></td>
<td>0.379</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE5</td>
<td></td>
<td>0.824</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE2</td>
<td></td>
<td>0.795</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE4</td>
<td></td>
<td>0.775</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE3</td>
<td></td>
<td>0.715</td>
<td></td>
<td></td>
<td>0.303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE1</td>
<td></td>
<td>0.615</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SL2</td>
<td></td>
<td></td>
<td>0.983</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SL1</td>
<td></td>
<td></td>
<td>0.911</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SL3</td>
<td></td>
<td></td>
<td>0.639</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP3</td>
<td></td>
<td></td>
<td></td>
<td>0.880</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP2</td>
<td></td>
<td></td>
<td></td>
<td>0.746</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP1</td>
<td></td>
<td></td>
<td></td>
<td>0.741</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SB3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.837</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.714</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SB4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.525</td>
<td>0.379</td>
<td></td>
</tr>
<tr>
<td>SB1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.839</td>
</tr>
<tr>
<td>SB5</td>
<td>0.305</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.621</td>
</tr>
<tr>
<td>SB2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.437</td>
<td>0.478</td>
<td></td>
</tr>
</tbody>
</table>

### 5.2.3 Summary

An outlier analysis was performed, resulting the removal of three cases from the dataset. Furthermore, the dataset proved not to adhere to the requirements of a normal distribution. Hence, model assessment was performed by means of soft distributional assumption methods.

The conceptual model underpinning the operationalisation of this study contained five mediators of the similarity-salesperson trust relationship. A principal components analysis provided a sixth mediator, that was identified as willingness behaviour. The model was adjusted accordingly.
5.3 Measurement model assessment

The PLS algorithm was run, deploying a path weighting scheme. The number of iterations maximised was set at three hundred, and the stop criterion set on $10^{-7}$ (Hair et al., 2016), for all PLS calculations.

The PLS SEM algorithm (2014) first normalised the data of the items, and then an iterative process was started. Firstly, the latent constructs were estimated, based on the subsequent items. The inner weights were then estimated, followed by a renewed estimation of the latent constructs, based on their relationship with the other latent constructs (e.g. inner weights). Next, the outer weights between the latent constructs and their related items were approximated again. These steps were repeated until the model converged or the maximum number of iterations was reached (Hair et al., 2016). When the model converged, final
estimations of the outer loading and outer weights, and path coefficients, were calculated by means of ordinary least squares regressions (Henseler et al., 2012).

Two measurement models were assessed. The first model was without hierarchical components. The second measurement model treated benevolence, integrity, and willingness behaviour as lower-order constructs of willingness and expertise, and power as lower-order constructs of capability.

5.3.1 Non-hierarchical measurement model assessment

The non-hierarchical model comprised: salesperson similarity as assessed by the buyer; the assessments of benevolence, integrity, willingness behaviour, expertise, power, and likeability of the salesperson as perceived by the buyer; subsequent trust in the salesperson; the organisation the salesperson represented; anticipated added value of the offer concerned; and anticipated future interaction.

In total, this consisted of eleven latent constructs and thirty-seven items or indicators. Apart from anticipated added value, each construct was measured reflectively. Of the reflective constructs, anticipated future interaction had the lowest number of items assigned (two items), and salesperson integrity and salesperson expertise were measured through five items. The formatively measured construct of anticipated added value was captured by means of two items.
Table 21: number of items, mean, and standard deviation per construct (five-point scale)

<table>
<thead>
<tr>
<th>Constructs</th>
<th># items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesperson similarity (SS)</td>
<td>3</td>
<td>2.938</td>
<td>0.617</td>
</tr>
<tr>
<td>Salesperson benevolence (SB)</td>
<td>3</td>
<td>3.496</td>
<td>0.632</td>
</tr>
<tr>
<td>Salesperson integrity (SI)</td>
<td>5</td>
<td>3.435</td>
<td>0.555</td>
</tr>
<tr>
<td>Salesperson willingness behaviour (WB)</td>
<td>3</td>
<td>3.455</td>
<td>0.664</td>
</tr>
<tr>
<td>Salesperson power (SP)</td>
<td>3</td>
<td>3.461</td>
<td>0.686</td>
</tr>
<tr>
<td>Salesperson expertise (SE)</td>
<td>5</td>
<td>3.574</td>
<td>0.585</td>
</tr>
<tr>
<td>Salesperson likeability (SL)</td>
<td>3</td>
<td>3.716</td>
<td>0.675</td>
</tr>
<tr>
<td>Salesperson trust (ST)</td>
<td>4</td>
<td>3.225</td>
<td>0.599</td>
</tr>
<tr>
<td>Organisational trust (OT)</td>
<td>4</td>
<td>3.239</td>
<td>0.600</td>
</tr>
<tr>
<td>Anticipated added value (AAV)*</td>
<td>2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Anticipated future interaction (AFI)</td>
<td>2</td>
<td>3.384</td>
<td>0.860</td>
</tr>
</tbody>
</table>

* formative scale

Before assessing the relationships between the latent constructs, it was ensured that each item, and also every set of items, measured the constructs correctly. For the reflective measurement scales, internal consistency reliability, indicator reliability, convergent validity, and discriminant validity were analysed. Next, the formative scale of anticipated added value was assessed.

**Internal consistency reliability**

Cronbach’s alpha and composite reliability were used to assess internal consistency reliability (Esposito Vinzi et al., 2010; Hair et al., 2016) of the reflective measures. Both tests were used to assess if the combination of items consistently measured the latent construct that the items load on. Cronbach’s
alpha was considered a more conservative measure, as it underestimates internal consistency reliability by assuming equal outer loadings. As PLS prioritises items on the basis of their respective individual reliability, composite reliability was considered a more suited test; although, it was indicated that composite reliability overestimates (Hair et al., 2016).

The outcomes of both tests were considered acceptable between 0.6 and 0.7, and between 0.9 and 0.95, and satisfactory between 0.7 and 0.9. Scores below 0.6 or above 0.95 were considered problematic (Hair et al., 2016).

Composite reliability scores of salesperson similarity, benevolence, integrity, willingness behaviour, power, expertise, salesperson trust, and organisational trust were satisfactory (e.g. between 0.7 and 0.9). Of these constructs, salesperson similarity had the lowest score (0.784) and integrity had the highest score (0.895). The outcomes of likeability (0.917) and anticipated future interaction (0.933) were assessed acceptable, as the assigned items scored a composite reliability between 0.90 and 0.95. This indicated possible overlapping of the items. The outcomes of the Cronbach’s alpha test were satisfactory for the items measuring all of the constructs (e.g. between 0.7 and 0.9) except salesperson similarity (0.651), benevolence (0.693), and salesperson trust (0.696), which had acceptable scores.

It was indicated (Hair et al., 2016) that Cronbach’s alpha score are too conservative, and that composite reliability scores have a tendency to be too high. Thus, the balance between the two tests compensated for the low Cronbach’s alpha score of similarity, benevolence and salesperson trust, and the high composite reliability score of likeability and anticipated future interaction. Also, none of the constructs had a problematic score. Therefore, it was concluded that all reflective scales fulfilled the internal consistency reliability criterion.

**Indicator reliability**

The outer loadings of the items on their respective latent constructs were checked in order to establish indicator reliability. This measures whether an item has
sufficient communality with the intended latent construct. Levels above 0.708 were considered satisfactory (Hair et al., 2016). Levels between 0.4 and 0.708 were deemed acceptable.

None of the items scored below the threshold level of 0.4. The items of benevolence, integrity, willingness behaviour, power, likeability, and anticipated future interaction all had values over 0.708. The other four reflective latent construct contained one or more items with outer loadings between 0.4 and 0.7. The items with the lowest outer loading were the first two items of the salesperson trust scale “I would not mind this salesperson to have influence over issues that are important to us”; outer loading: 0.553 and “I would be willing to let this salesperson to have complete control over our cooperation”; outer loading: 0.550).

Considering that none of the latent reflective constructs containing one or more acceptable items did not meet the composite threshold level, or had an AVE lower than 0.5 (Hair et al., 2016), it was decided not to eliminate any of the items. Every scale concerned was theoretically underpinned and empirically validated by earlier research. Content validity could have been compromised when dropping one or more of these items. The new willingness construct of willingness behaviour also had satisfactory scores.
**Table 22: Outer loadings**

<table>
<thead>
<tr>
<th>Items</th>
<th>WB</th>
<th>AFI</th>
<th>OT</th>
<th>SB</th>
<th>SE</th>
<th>SI</th>
<th>SL</th>
<th>SP</th>
<th>SS</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Willingness Behaviour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WB (SI2)</td>
<td>0.871</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WB (SB3)</td>
<td>0.821</td>
<td></td>
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</tbody>
</table>

* acceptable score

**Convergent validity**
Convergent validity was evaluated through checking if the AVE was above the threshold level of 0.5 (Fornell and Larcker, 1981). This indicated that less than half of the information provided by the underlying items consists of erroneous information, and more than half is used to explain the variance in the related latent construct (Fornell and Larcker, 1981; Hair et al., 2016).

Convergent validity of all reflective latent constructs within the model was established. Salesperson trust had the lowest AVE (0.512) and anticipated future interactions had the highest AVE score of 0.874.

*Table 23: Internal consistency reliability and convergent validity of reflective constructs*

<table>
<thead>
<tr>
<th>Latent construct</th>
<th>Composite reliability</th>
<th>Cronbach’s Alpha</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesperson similarity</td>
<td>0.784</td>
<td>0.651*</td>
<td>0.553</td>
</tr>
<tr>
<td>Salesperson benevolence</td>
<td>0.829</td>
<td>0.693*</td>
<td>0.618</td>
</tr>
<tr>
<td>Salesperson integrity</td>
<td>0.895</td>
<td>0.854</td>
<td>0.631</td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.860</td>
<td>0.757</td>
<td>0.672</td>
</tr>
<tr>
<td>Salesperson power</td>
<td>0.876</td>
<td>0.787</td>
<td>0.701</td>
</tr>
<tr>
<td>Salesperson expertise</td>
<td>0.882</td>
<td>0.834</td>
<td>0.602</td>
</tr>
<tr>
<td>Salesperson likeability</td>
<td>0.917*</td>
<td>0.868</td>
<td>0.786</td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.801</td>
<td>0.696*</td>
<td>0.512</td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.803</td>
<td>0.713</td>
<td>0.514</td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>0.933*</td>
<td>0.855</td>
<td>0.874</td>
</tr>
</tbody>
</table>

* acceptable score
**Discriminant validity**

In order to establish if the reflective latent constructs were capturing a unique phenomenon in comparison to other constructs, discriminant validity was assessed. In PLS SEM analysis literature, two measures were advised: checking cross loadings (Hair et al., 2011), and the Fornell-Larcker criterion (Henseler et al., 2009). However, it has been argued recently (Henseler, Ringle, et al., 2014) that both statistical tests are not sufficiently capable of detecting discriminant validity violations. Hence, a new test, referred to as HeteroTrait-MonoTrait ratio (HTMT) was developed and proposed.

The SmartPLS software calculated the ratio between the average heterotrait-heteromethod correlations of the items of other latent constructs, and the average monotrait-heteromethod correlations of items designated to a specific construct (SmartPLS, 2015). The outcomes were considered satisfactory with a score under 0.85 (Henseler, Ringle, et al., 2014; Kline, 2016), and acceptable with a score between 0.85 and 0.9 (Gold and Malhotra, 2001; Henseler, Ringle, et al., 2014).

Except for the comparison between salesperson trust and organisational trust (0.857), every comparison of the reflective constructs scored less than 0.85. This indicated that discriminant validity was established for all reflective latent constructs, but that respondents did not distinguish between the constructs of salesperson trust and organisational trust as much as they did between other constructs. As expected, each construct also complied with the Fornell-Larcker criterion and cross loading requirements.
Table 24: Discriminant validity of reflective constructs (HTMT)

<table>
<thead>
<tr>
<th>Latent constructs</th>
<th>SS</th>
<th>SB</th>
<th>SI</th>
<th>WB</th>
<th>SP</th>
<th>SE</th>
<th>SL</th>
<th>ST</th>
<th>OT</th>
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<tbody>
<tr>
<td>Salesperson similarity (SS)</td>
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<tr>
<td>Salesperson benevolence (SB)</td>
<td>0.433</td>
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<td>Salesperson integrity (SI)</td>
<td>0.505</td>
<td>0.625</td>
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<tr>
<td>Willingness behaviour (WB)</td>
<td>0.449</td>
<td>0.720</td>
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<td>Salesperson power (SP)</td>
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<td>0.310</td>
<td>0.353</td>
<td>0.386</td>
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<td>Salesperson expertise (SE)</td>
<td>0.376</td>
<td>0.614</td>
<td>0.542</td>
<td>0.488</td>
<td>0.577</td>
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<tr>
<td>Salesperson likeability (SL)</td>
<td>0.236</td>
<td>0.480</td>
<td>0.511</td>
<td>0.249</td>
<td>0.267</td>
<td>0.592</td>
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<tr>
<td>Salesperson trust (ST)</td>
<td>0.418</td>
<td>0.405</td>
<td>0.383</td>
<td>0.483</td>
<td>0.346</td>
<td>0.469</td>
<td>0.383</td>
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<tr>
<td>Organisational trust (OT)</td>
<td>0.266</td>
<td>0.219</td>
<td>0.278</td>
<td>0.244</td>
<td>0.254</td>
<td>0.288</td>
<td>0.269</td>
<td>0.857*</td>
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<tr>
<td>Anticipated future interaction (AFI)</td>
<td>0.216</td>
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<td>0.186</td>
<td>0.396</td>
<td>0.508</td>
<td>0.516</td>
<td>0.280</td>
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* acceptable score

**Formative scale assessment**

Given that anticipated added value was judged a formative scale, the reflective measurement model assessment procedure did not apply to this particular scale. In formative scales, items are assumed to be error free, and to fully contribute to the latent construct (Hair et al., 2016). Therefore, content validity, based on the literature review (Lapierre, 2000; Briggs and Grisaffe, 2010) and operationalisation, was considered most important.

The first step to assess the appropriateness of a formative scale is to calculate the variance explained of a reflective scale measuring the same construct (Hair et al., 2016) in order to establish convergent validity. For this purpose, the Lapierre (2000) item was used as a reflective single item that most captures the essence of the construct (Hair et al., 2016). A model of one latent construct, containing the Briggs and Grisaffe items, and the single item Lapierre (2000) construct, was specified and run. When the path coefficient was above 0.8, and the variance explained ($R^2$) was above 0.64, convergent validity could be established (Chin, 1998; Hair et al., 2016). As the path coefficient was 0.795, and
R² was 0.632, it was concluded that the anticipated added value scale marginally complied with convergent validity threshold levels of formative scales.

As the two items were expected to capture different causes of anticipated added value by buyers, it was essential that (multi)collinearity was not an issue. The measure used to assess possible (multi)collinearity was the Variance Inflation Factor (VIF), which signals the degree to which the standard error is inflated because of collinearity between the items of the latent construct (Hair et al., 2016). (Multi)collinearity was considered problematic when the items had a VIF of over 5.0 (Hair et al., 2011). The relationship of the items had a VIF score of 1.492, which was below the indicated level. Hence, (multi)collinearity was not considered an issue.

When one considers that the formative measures for all items fully contribute to the explanation of the latent construct, the absolute and relative importance of the different items were assessed. If an item had a significant relationship with the latent construct, it was considered to be of absolute importance. If the outer weight was above 0.5, it was considered of high relative importance (Hair et al., 2016). Both formative items were significantly (p-value: 0.000) related to anticipated added value (based on a bootstrapping procedure, with five thousand resamples). The item that scored higher (0.634) was “cooperation will result in lower costs for our organisation”. The first item “cooperation will result in higher profits for our organisation” had a weight of 0.491, which is lower than, but adjacent to, the 0.5 threshold level.

Summary

The measurement model of the conceptual framework complied with all threshold levels necessary (Esposito Vinzi et al., 2010; Hair et al., 2016), although it was noted that a number of items had an acceptable score in conjunction with a satisfactory AVE-score of the respective construct. Furthermore, the discriminant validity between the salesperson trust and organisational trust items was not satisfactory, but acceptable. A last issue detected was the assessment of the
formative anticipated added value scale, which had near satisfactory scores. Overall, it was concluded that, based on the post hoc statistical analysis, the measurement model was valid and reliable from a statistical point of view.

5.3.2 Hierarchical measurement model assessment

Montoya and Horton (2014) stated that the similarity-attraction effect is mediated by willingness and capability. Therefore, a second measurement model was specified, incorporating two higher-order constructs. The hierarchical model contained willingness as a higher-order construct of benevolence (integrity and willingness behaviour), and capability as a higher-order construct of expertise and power. For the remaining constructs, the hierarchical model was identical to the non-hierarchical model.

In order to analyse a possible mediating role of willingness and capability, a two-stage approach was implemented (Henseler and Chin, 2010; Ringle et al., 2012). A model that excluded similarity was assessed, using the item-reuse approach in order to assess the validity and reliability of the higher-order constructs.
If the first stage model was assessed as valid and reliable, the latent variable scores of the five lower-order constructs were reused as indicators for the two higher-order constructs. This was a requirement in order to specify a path between similarity and the higher-order constructs of willingness and capability (Ringle et al., 2012; Hair et al., 2016), as this allowed similarity to explain the variance in the higher-order constructs (Ringle et al., 2012).
First stage analysis

The two hierarchical component models were defined as reflective-formative. This entailed that the relationships between the constructs were formative, and the items reflected the latent construct (Ringle et al., 2012). As a result, all reliability and validity criteria of reflectively measured constructs were assessed, apart from discriminant validity between the higher-order constructs and their assigned lower-order counterparts.

Indicator reliability of the higher-order constructs of willingness and capability were evaluated and deemed satisfactory. Neither did any of the outer loadings have a score under 0.40. However, willingness had an AVE (0.446) that was under the required 0.5 threshold. A similar score was found for the AVE of capability (0.479). Dropping low-scoring items, and balancing the number of items per lower-order construct (Becker et al., 2012; Dekker and Snijders, 2014), did not result in a satisfactory solution. Consequently, the higher-order constructs
were both assessed not valid or reliable and further assessment of the hierarchical model was halted.

**Summary**

During the first stage of the two-stage approach assessment, it was found that both higher-order constructs willingness and capability did not comply with the minimum requirements regarding AVE scores. As a consequence, the higher-order construct approached, as proposed by Montoya and Horton (2014) and represented in the hierarchical model, was dismissed from further analysis.

**5.4 Structural model assessment**

After the measurement models were evaluated, the structure of the non-hierarchical model was assessed (Hair et al., 2016). This structural model depicts the relationships between the latent constructs.

Firstly, it was checked whether there was collinearity between the latent constructs (Esposito Vinzi et al., 2010). Then, the path coefficients were evaluated, including significance testing by means of bootstrapping. The levels of variance explained were evaluated and the effect sizes were calculated and reported. Lastly, the predictive relevance of the model was assessed.

**Collinearity**

As with the items of the formative scales in the measurement model, collinearity was assessed through calculating VIF. Again, scores over 0.5 indicated problematic levels of collinearity. None of the constructs had a VIF score higher than 5.0 (Hair et al., 2016). The highest score reported was 2.062 between salesperson integrity and salesperson trust. It was therefore concluded that collinearity was not an issue.

**Path assessment**

The path coefficients were calculated by the PLS algorithm (Ringle et al., 2015), followed by a bootstrapping procedure in order to test for significance of the
identified path coefficients. As advised (Henseler et al., 2009; Hair et al., 2016), five thousand resamples of the original dataset were taken, for the bootstrapping procedure.

The largest path coefficient in the model was found between salesperson trust and organisational trust (0.658). The smallest positive path coefficient between expertise and salesperson trust was 0.072. Five path coefficients were negative: between benevolence and salesperson trust (-0.043); between integrity and salesperson trust (-0.066); between willingness behaviour and salesperson trust (-0.014); between salesperson trust and anticipated added value (-0.002); and between organisational trust and anticipated future interaction (-0.187).

In total, twenty-five relationships were assessed. The bootstrapping procedure showed that nine relationships were significant at a 0.01 level, three at a 0.05 level, and three at a 0.10 level. Eleven relationships were assessed as not significant. Of the five negative relationships, only that between organisational trust and anticipated future interaction was significant (p-value: 0.051).

Similarity was both positively and significantly related to all attraction constructs in the model, except for likeability and power. Aside from similarity, likeability and willingness behaviour were both significantly and positively related to salesperson trust. The other attraction mediators were not.

Likeability was both significantly and positively related to anticipated added value. Benevolence was marginally significant (p-value: 0.094) and positively related to anticipated added value. The expertise-anticipated added value relationship was found to be marginally insignificant (p-value: 0.121).

An unexpected finding was the negative and significant relationship between organisational trust and anticipated future interaction. Considering that negative paths in a PLS-model assessment occur when the endogenous variable lowers if the exogenous variable increases under the condition that all other variables are constant (Henseler and Ringle, 2011), the negative path could indicate that higher levels of perceived organisational trust would lead to lower future interaction
intentions. But it was recognised that this could also indicate that, when a higher level of organisational trust was not accompanied by higher levels of anticipated added value and salesperson trust, anticipated future interaction decreased. This would indicate that the effect of organisational trust was conditional.

The latter explanation was supported by the data. The relationship between organisational trust and anticipated future interaction was positive and significant (p-value: 0.014) for the full dataset (path coefficient: 0.310) when a model that only contained organisational trust and anticipated future interaction was assessed.

Table 25: Path assessments (path coefficients and p-values)

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Path coefficient</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similarity-benevolence</td>
<td>0.343</td>
<td>0.000***</td>
</tr>
<tr>
<td>Similarity-integrity</td>
<td>0.447</td>
<td>0.000***</td>
</tr>
<tr>
<td>Similarity-willingness behaviour</td>
<td>0.367</td>
<td>0.000***</td>
</tr>
<tr>
<td>Similarity-power</td>
<td>0.120</td>
<td>0.160 n.s.</td>
</tr>
<tr>
<td>Similarity-expertise</td>
<td>0.286</td>
<td>0.000***</td>
</tr>
<tr>
<td>Similarity-likeability</td>
<td>0.090</td>
<td>0.346 n.s.</td>
</tr>
<tr>
<td>Similarity-salesperson trust</td>
<td>0.187</td>
<td>0.034**</td>
</tr>
<tr>
<td>Benevolence-salesperson trust</td>
<td>-0.043</td>
<td>0.661 n.s.</td>
</tr>
<tr>
<td>Integrity-salesperson trust</td>
<td>-0.066</td>
<td>0.592 n.s.</td>
</tr>
<tr>
<td>Willingness behaviour-salesperson trust</td>
<td>0.282</td>
<td>0.012**</td>
</tr>
<tr>
<td>Power-salesperson trust</td>
<td>0.115</td>
<td>0.135 n.s.</td>
</tr>
<tr>
<td>Expertise-salesperson trust</td>
<td>0.072</td>
<td>0.501 n.s.</td>
</tr>
<tr>
<td>Likeability-salesperson trust</td>
<td>0.238</td>
<td>0.010***</td>
</tr>
<tr>
<td>Benevolence-anticipated added value</td>
<td>0.155</td>
<td>0.094*</td>
</tr>
<tr>
<td>Integrity-anticipated added value</td>
<td>0.102</td>
<td>0.266 n.s.</td>
</tr>
<tr>
<td>Willingness behaviour-anticipated added value</td>
<td>-0.014</td>
<td>0.889 n.s.</td>
</tr>
<tr>
<td>Power-anticipated added value</td>
<td>0.078</td>
<td>0.315 n.s.</td>
</tr>
<tr>
<td>Expertise-anticipated added value</td>
<td>0.131</td>
<td>0.121 n.s.</td>
</tr>
<tr>
<td>Likeability-anticipated added value</td>
<td>0.234</td>
<td>0.009***</td>
</tr>
<tr>
<td>Salesperson trust-organisational trust</td>
<td>0.658</td>
<td>0.000***</td>
</tr>
<tr>
<td>Salesperson trust-anticipated added value</td>
<td>-0.002</td>
<td>0.984 n.s.</td>
</tr>
<tr>
<td>Salesperson trust-anticipated future interaction</td>
<td>0.376</td>
<td>0.000***</td>
</tr>
<tr>
<td>Organisational trust-anticipated added value</td>
<td>0.206</td>
<td>0.023**</td>
</tr>
<tr>
<td>Organisational trust-anticipated future interaction</td>
<td>-0.187</td>
<td>0.051*</td>
</tr>
<tr>
<td>Anticipated added value-anticipated future interaction</td>
<td>0.549</td>
<td>0.000***</td>
</tr>
</tbody>
</table>
Apart from the negative relationship between organisational trust and anticipated future interaction, all relationships between salesperson trust, organisational trust, anticipated added value, and anticipated future interaction were significant and positive (path coefficient: 0.187).

**Variance Explained**

The variance explained of the endogenous constructs was determined by analysing the $R^2$ values. Salesperson similarity explained 0.117 of the variance of benevolence, 0.200 of integrity, 0.134 of willingness behaviour, 0.014 of power, 0.082 of expertise, and 0.008 of likeability. All antecedents of salesperson trust had a combined $R^2$ value of 0.274. In turn salesperson trust explained 0.433 of the variance of organisational trust. In the model, the variance of anticipated added value by all eight antecedents was 0.376. In total, salesperson trust, organisational trust, and anticipated added value accounted for 45.9% of the variance in anticipated future interaction.

Although there are no unambiguous rules with which to evaluate $R^2$ values (Hair et al., 2016), a rule of thumb is to consider low scores (lower than 0.1) not significant (Reisinger, 1997). Furthermore, it was stated that $R^2$ values in the field of marketing are low (Reisinger, 1997; Hair et al., 2016), as human behaviour in context is difficult to predict. With this in mind, it was concluded that there was insignificant statistical proof that salesperson similarity explained variance in the constructs of power, expertise, and likeability, and that conclusions regarding the effect of salesperson similarity on expertise should be made with caution, despite the significant relationship between the two constructs.

**Effect sizes**

When more than one construct accounted for the variance explained, effect sizes were calculated in order to analyse the relative effect of the separate constructs (Huberty, 1994; Hair et al., 2016). For these occurrences, effect sizes were calculated by rerunning the PLS algorithm after eliminating those constructs. Next, the $R^2$ value of the related endogenous construct that excluded the
The exogenous construct under scrutiny was subtracted from the $R^2$ value, including the exogenous construct. Afterwards, this outcome was divided by one minus the $R^2$ value included (Huberty, 1994; Esposito Vinzi et al., 2010).

The model contained three endogenous constructs that had multiple antecedents: salesperson trust; anticipated added value; and anticipated future interaction. Effects sizes around 0.02 were considered small effects. Effect sizes of approximately 0.15 and 0.35 were assessed as medium and large effects, respectively.

Regarding salesperson trust, the effect sizes of benevolence (0.002), integrity (0.003), and expertise (0.004) were close to non-existent. Similarity (0.035) and power (0.014) had a small effect size; and willingness behaviour (0.064), and likeability (0.035) had effect sizes closer to medium.

Table 26: Variance explained and effect sizes

<table>
<thead>
<tr>
<th>Construct</th>
<th>$R^2$</th>
<th>ST</th>
<th>AAV</th>
<th>AFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesperson similarity</td>
<td>N/A</td>
<td>0.035</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salesperson benevolence</td>
<td>0.117</td>
<td>0.002</td>
<td>0.024</td>
<td></td>
</tr>
<tr>
<td>Salesperson integrity</td>
<td>0.200</td>
<td>0.003</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.134</td>
<td>0.064</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Salesperson power</td>
<td>0.014</td>
<td>0.014</td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td>Salesperson expertise</td>
<td>0.082</td>
<td>0.004</td>
<td>0.015</td>
<td></td>
</tr>
<tr>
<td>Salesperson likeability</td>
<td>0.008</td>
<td>0.048</td>
<td>0.058</td>
<td></td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.274</td>
<td>0.000</td>
<td>0.144</td>
<td></td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.433</td>
<td>0.037</td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>Anticipated added value</td>
<td>0.376</td>
<td></td>
<td>0.472</td>
<td></td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>0.459</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For anticipated added value, the effect sizes of willingness behaviour (0.000), integrity (0.009), power (0.007), and salesperson trust (0.000) were considered non-existent. Small effect sizes were detected for benevolence (0.024), expertise
(0.015), and organisational trust (0.037). A medium effects size was found for likeability (0.058).

There was a small effect of organisational trust (0.035) on anticipated future interaction. The effect sizes for salesperson trust and anticipated added value were medium (0.144), and large (0.472), respectively.

**Predictive relevance**

In order to assess predictive relevance (Esposito Vinzi et al., 2010; Hair et al., 2016), a blindfolding procedure was executed (Chin, 1998). With this procedure, data was omitted and then a value for the omitted data was calculated, based on both the measurement model and the structural model. Next, the outcomes were compared with the actual values of the omitted data. This was repeated, until every data point in the dataset was predicted. The predictive capability of the model was tested by means of the cross-validated redundancy approach (Hair et al., 2016) with omission distances of five to ten cases, except for distances of six and nine cases. This is because the procedure will not cover all cases when the sample size divided by the omission distance is an integer (Hair et al., 2016).

Stone Geisser’s $Q^2$ (Stone, 1974; Geisser, 1975) scores of 0.0 or lower were considered indications of lack of predictive capability (Hair et al., 2016). $Q^2$ scores can vary between -1 and 1. No $Q^2$ scores were assessed (Hair et al., 2016) for salesperson similarity (as this is a purely endogenous construct in both models), and anticipated added value (as this is a formatively measured scale).

Average Stone Geisser’s $Q^2$ scores, as well as the scores of all five resample procedures, were higher than zero, except for likeability, which scored a borderline -0.002. Also, the score of power (0.005) was close to zero. The outcome for the variable of anticipated future interaction had a high score (0.395). Overall, the model was assessed as free of issues regarding predictive relevance. However, the predictive relevance of power and likeability were considered limited.
Table 27: Stone Geisser's Q2 scores

<table>
<thead>
<tr>
<th></th>
<th>Omission Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Salesperson benevolence</td>
<td>0.065</td>
</tr>
<tr>
<td>Salesperson integrity</td>
<td>0.117</td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.087</td>
</tr>
<tr>
<td>Salesperson power</td>
<td>0.007</td>
</tr>
<tr>
<td>Salesperson expertise</td>
<td>0.045</td>
</tr>
<tr>
<td>Salesperson likeability</td>
<td>-0.002</td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.105</td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.202</td>
</tr>
<tr>
<td>Anticipated added value</td>
<td>n/a</td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>0.404</td>
</tr>
</tbody>
</table>

Summary

The structural model of the accepted measurement model was assessed. Collinearity was considered not an issue. All relationships with similarity were both positive and significant, except for power, and likeability, which had positive but nonsignificant relationships with similarity. Similarity, willingness behaviour, and likeability were both positively and significantly related to salesperson trust. Benevolence and likeability were both positively and significantly related to anticipated added value.

The relationship between salesperson trust and anticipated added value was not significant. Together with the conditional relationship between organisational trust and anticipated future interaction, these were the only two relationships between salesperson trust, organisation trust, anticipated added value, and anticipated future interaction of the model that were not both significant and positive.

Effects sizes for the antecedents of salesperson trust were small or non-existent, except for similarity, willingness behaviour, and likeability. The effect sizes of the antecedents of anticipated added value were small to medium for benevolence, expertise, likeability, and organisational trust. Concerning the relationship with
anticipated future interaction, the effect size of salesperson trust was medium and the effect size of anticipated added value was large. Overall, the model had satisfactory predictive relevance scores for the reflectively measured endogenous constructs. The predictive relevance of power and likeability was considered limited.

5.5 Unobserved heterogeneity

Before assessing a priori determined heterogeneity based on possible moderating effects identified in the literature review, the model was first tested for unobserved heterogeneity (Hair et al., 2011). FIXIM-PLS analysis was used (Sarstedt and Ringle, 2010; Hair et al., 2016) to do so. This model-based clustering technique was chosen because other techniques for PLS are still in early stages of development (Ringle et al., 2010). As opposed to traditional segmentation techniques, segments were not identified through a combination of a priori determined variables, but based on heterogeneity in the structural model relationships (Ringle et al., 2010). This analysis provided solutions based on a pre-set number of segments. Of these solutions, the solution with the best fit was selected.

This was followed by a measurement model assessment and structural model assessment per segment. A multigroup analysis of the preferred solution was performed in order to compare the outcomes of the structural models (Sarstedt, Henseler, et al., 2011). Additionally, a power analysis was executed to identify possible Type II errors. Lastly, it was assessed whether the analysis per segment offered better outcomes than the full dataset analysis, by means of comparing the average of the variance explained per construct of the combined segments and the full dataset solution.

5.5.1 Heterogeneity analysis

The evaluation criterion used to assess the quality of the model-based segment separation was a normed entropy statistic (EN) of 0.5 or over (Sarstedt and
Segments with fewer than ten cases assigned to it were considered too small (Sarstedt, Becker, et al., 2011). Given that the algorithm randomly chose the data points, the FIMIX-PLS algorithm was performed ten times per pre-set number of segments in order to determine the consistency of the estimations.

Literature suggests an array of criteria with which to assess segmentation solutions. It was stated (Sarstedt, Becker, et al., 2011) that, when comparing FIMIX-PLS solutions, those with the lowest consistent Akaike information criterion (CAIC) in conjunction with the lowest Akaike information criterion factor 3 (AIC₃) provide the best solutions. When the combination of these two criteria was inconclusive, the CAIC score was used to determine the best solution (Sarstedt and Ringle, 2010).

**Model exploration**

For the two-segment iterations, all ten instances provided an identical solution. Of the three-segment iterations, only two out of ten provided an identical solution, while the other eight iterations all differed. With four- and five-segment, all ten iterations differed. Furthermore, all four- and five-segment solutions contained one or multiple segments with too few (fewer than ten) cases assigned respectively. All iterations with more than five pre-set segments contained segments that were considered too small. The two-segment solution, and the least inconsistent three-segment solution, were both assessed in more depth.

Both the two- and most consistent three-segment solutions had an EN value of higher than 0.5. The two-segment solution scored 0.787, and the three-segment solution EN score was 0.823. The two-segment FIMIX-PLS solution had a CAIC value of 4,376.892, and an AIC₃ score of 4,157.673. The three-segment solution CAIC value was 4,446.179, and the AIC₃ score was 4,115.806. The combined CAIC and AIC₃ evaluation proved to be inconclusive. Further analysis of less suited (Sarstedt, Becker, et al., 2011) assessment criteria also provided mixed results. Therefore, the lowest CAIC score was used to determine the best FIMIX-PLS solution, which, in this case, was the two-segment solution.
Table 28: FIMIX-PLS segmentation comparison

<table>
<thead>
<tr>
<th>S</th>
<th>Normed entropy statistic (EN)</th>
<th>Consistent AIC (CAIC)</th>
<th>AIC factor 3 (AIC_{3})</th>
<th>segment sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.787</td>
<td>4,376.892</td>
<td>4,157.673</td>
<td>83 79</td>
</tr>
<tr>
<td>3</td>
<td>0.823</td>
<td>4,446.179</td>
<td>4,115.806</td>
<td>70 62 30</td>
</tr>
</tbody>
</table>

5.5.2 Segmentated measurement model assessment

In order to establish differences between the two segments of the preferred two-segment solution, a multigroup analysis was performed (Sarstedt and Ringle, 2010; Hair et al., 2016) after the measurement model assessment of for both segments.

In the first segment (segment A), consisting of eighty-three cases, all composite reliability scores were above 0.7. Low Cronbach’s alpha scores were accompanied by high composite reliability scores. The reverse was found for high composite reliability scores. Indicator reliability was not violated. The first item, salesperson similarity, had the lowest outer loading (0.616). All AVE scores were over 0.5 and under 0.90. All other scores indicated that the model was valid and reliable for this segment. One relationship between constructs was assessed problematic. The HTMT score for benevolence and willingness behaviour was 0.934. All other HTMT scores were lower than 0.80, including the score for the latent constructs of salesperson trust and organisational trust.

In the measurement model for the seventy-nine cases of the second segment (segment B), the scales of salesperson trust and organisational trust proved problematic. In both scales, the first two items had an outer loading under 0.4. In salesperson trust, the outer loading was 0.307 for the first item, and 0.229 for the second item. In organisational trust, the first item had an outer loading of 0.271, and the second item a score of 0.091.
Deletion of these two items resulted in validation of the entire measurement model, except for discriminant validity between salesperson trust and organisational trust (HTMT score: 1.057 before deletion; 1.175 after deletion). The path coefficients and bootstrapping results from both before and after this deletion were compared (appendix II). Although the outcomes differed slightly, all path coefficients did not alter in relative importance when compared to other path coefficients, except for the negative relationship between organisational trust and anticipated added value. This relationship was marginally significant (p-value: 0.080) when the four-item scale was used, and not significant in the two-item scale structural model assessment. Otherwise, the significance levels of all paths remained constant, and no collinearity issues were detected in the structural model.

As none of the antecedents of salesperson trust were assigned to organisational trust, the model was accepted for segment B, under the condition that conclusions were to be drawn with caution when salesperson trust, organisation trust, and anticipated added value were involved.

Another finding was that anticipated added value in segment A was predominantly driven by anticipated lower costs (weight 0.689), and less by the prospect of higher profits (weight 0.444). In segment B, anticipated added value expectations regarding higher profits (weight 0.574) were marginally more important than lower cost expectations (weight 0.537).

5.5.3 Multigroup analysis

In order to evaluate the differences between the structural models of the full dataset, and both segments, a multigroup analysis was executed (Hair et al., 2016). Differences were considered significant with a p-value lower that 0.1 and higher than 0.9 (Sarstedt, Henseler, et al., 2011).
Path coefficients and significance

In five out of twenty-six path coefficients, the multigroup analysis identified significant differences between the path models in both segments. In one instance, this still meant that both paths were highly significant (anticipated added value-anticipated future interaction). Two of the other significant differences resulted in significant relationships in segment A and not in segment B (similarity-benevolence, and benevolence-anticipated added value). Conversely, two significant differences meant significant relationships in segment B and not segment A (expertise-anticipated added value, and organisational trust-anticipated added value).

Furthermore, there were five instances where differences were not assessed as significant, but path coefficients were significant in one segment and not in the other (similarity-likeability; similarity-expertise; likeability-anticipated added value; and organisational trust-anticipated added value). There were four instances where the level of significance differed, although this was not assessed as an important difference. These were similarity-integrity; similarity-willingness behaviour; likeability-salesperson trust; and salesperson trust-anticipated future interaction. Segment A deviated from the complete dataset assessment in seven occurrences; the more profit oriented segment in twelve.
### Table 29: MGA results: path coefficients, significance levels and differences

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Complete</th>
<th>Segment A</th>
<th>Segment B</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS → SB</td>
<td>0.343***</td>
<td>0.502***</td>
<td>0.207</td>
<td>0.294**</td>
</tr>
<tr>
<td>SS → SI</td>
<td>0.447***</td>
<td>0.555***</td>
<td>0.347*</td>
<td>0.208</td>
</tr>
<tr>
<td>SS → WB</td>
<td>0.367***</td>
<td>0.462***</td>
<td>0.278*</td>
<td>0.184</td>
</tr>
<tr>
<td>SS → SP</td>
<td>0.120</td>
<td>0.125</td>
<td>0.149</td>
<td>0.025</td>
</tr>
<tr>
<td>SS → SE</td>
<td>0.286***</td>
<td>0.386***</td>
<td>0.200</td>
<td>0.186</td>
</tr>
<tr>
<td>SS → SL</td>
<td>0.090</td>
<td>0.271**</td>
<td>-0.060</td>
<td>0.331</td>
</tr>
<tr>
<td>SS → ST</td>
<td>0.187**</td>
<td>0.076</td>
<td>0.256</td>
<td>0.180</td>
</tr>
<tr>
<td>SB → ST</td>
<td>-0.043</td>
<td>-0.043</td>
<td>-0.107</td>
<td>0.063</td>
</tr>
<tr>
<td>SI → ST</td>
<td>-0.066</td>
<td>-0.041</td>
<td>-0.042</td>
<td>0.001</td>
</tr>
<tr>
<td>WB → ST</td>
<td>0.282**</td>
<td>0.392***</td>
<td>0.135</td>
<td>0.257</td>
</tr>
<tr>
<td>SP → ST</td>
<td>0.115</td>
<td>0.113</td>
<td>0.190</td>
<td>0.077</td>
</tr>
<tr>
<td>SE → ST</td>
<td>0.072</td>
<td>0.111</td>
<td>0.100</td>
<td>0.011</td>
</tr>
<tr>
<td>SL → ST</td>
<td>0.238***</td>
<td>0.245*</td>
<td>0.281**</td>
<td>0.036</td>
</tr>
<tr>
<td>SB → AAV</td>
<td>0.155*</td>
<td>0.300*</td>
<td>0.036</td>
<td>0.264*</td>
</tr>
<tr>
<td>SI → AAV</td>
<td>0.102</td>
<td>0.114</td>
<td>0.005</td>
<td>0.109</td>
</tr>
<tr>
<td>WB → AAV</td>
<td>-0.014</td>
<td>-0.099</td>
<td>0.072</td>
<td>0.171</td>
</tr>
<tr>
<td>SP → AAV</td>
<td>0.078</td>
<td>0.058</td>
<td>-0.033</td>
<td>0.091</td>
</tr>
<tr>
<td>SE → AAV</td>
<td>0.131</td>
<td>0.077</td>
<td>0.367***</td>
<td>0.291*</td>
</tr>
<tr>
<td>SL → AAV</td>
<td>0.243***</td>
<td>0.171</td>
<td>0.267**</td>
<td>0.096</td>
</tr>
<tr>
<td>ST → OT</td>
<td>0.658***</td>
<td>0.649***</td>
<td>0.737***</td>
<td>0.087</td>
</tr>
<tr>
<td>ST → AAV</td>
<td>-0.002</td>
<td>0.052</td>
<td>-0.204</td>
<td>0.257</td>
</tr>
<tr>
<td>OT → AAV</td>
<td>0.206**</td>
<td>0.123</td>
<td>0.458***</td>
<td>0.335*</td>
</tr>
<tr>
<td>ST → AFI</td>
<td>0.376***</td>
<td>0.471***</td>
<td>0.321**</td>
<td>0.151</td>
</tr>
<tr>
<td>OT → AFI</td>
<td>-0.187*</td>
<td>-0.211</td>
<td>-0.268*</td>
<td>0.056</td>
</tr>
<tr>
<td>AAV → AFI</td>
<td>0.549***</td>
<td>0.487***</td>
<td>0.665***</td>
<td>0.178**</td>
</tr>
</tbody>
</table>
**Variance explained**

In segment A, the variance explained of benevolence was higher than the complete model or segment B. The same applied to integrity, willingness behaviour, expertise, likeability, and salesperson trust. Organisational trust and anticipated added value had lower scores than the complete model and segment B. In segment A, for anticipated future interaction the $R^2$ value scored higher than the $R^2$ values in the complete model, but lower than the values of segment B.

With the exception of power, the $R^2$ values of the mediating constructs of the similarity-salesperson trust relationship were substantially higher in segment A. Also, salesperson trust was better explained in segment A, while anticipated added value was better explained in segment B. In segment B, the variance of organisational trust explained by salesperson trust was the highest of all three solutions. This was in line with the collinearity issues detected.

*Table 30: Multigroup explained variance comparison*

<table>
<thead>
<tr>
<th>Construct</th>
<th>$R^2$ Complete</th>
<th>$R^2$ Segment A</th>
<th>$R^2$ Segment B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesperson benevolence</td>
<td>0.117</td>
<td>0.252</td>
<td>0.043</td>
</tr>
<tr>
<td>Salesperson integrity</td>
<td>0.200</td>
<td>0.308</td>
<td>0.120</td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.134</td>
<td>0.213</td>
<td>0.077</td>
</tr>
<tr>
<td>Salesperson power</td>
<td>0.014</td>
<td>0.016</td>
<td>0.022</td>
</tr>
<tr>
<td>Salesperson expertise</td>
<td>0.082</td>
<td>0.149</td>
<td>0.040</td>
</tr>
<tr>
<td>Salesperson likeability</td>
<td>0.008</td>
<td>0.074</td>
<td>0.004</td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.274</td>
<td>0.354</td>
<td>0.289</td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.433</td>
<td>0.422</td>
<td>0.543</td>
</tr>
<tr>
<td>Anticipated added value</td>
<td>0.376</td>
<td>0.332</td>
<td>0.533</td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>0.459</td>
<td>0.474</td>
<td>0.481</td>
</tr>
</tbody>
</table>

**Statistical power**

A power analysis was performed for all three model assessments, as the segment models were assessed with different sample sizes than the full dataset. If a nonsignificant relationship in a path model had insufficient power, possible Type
II errors were identified (Cohen, 1992; Hair et al., 2016). The post hoc statistical power calculator of Soper (2015) was used to calculate the power scores for all constructs. A score of 0.800 was considered sufficient (Hair et al., 2016) for Type I significance levels of 0.01 and 0.05. In this exploratory study, power scores over 0.80, with significance levels of 0.10 were regarded as acceptable.

In total, six out of twenty-seven power assessments revealed insufficient power to guard against Type II errors. The highest related $R^2$ value was 0.040. When variance explained was under 0.1, this was evaluated as a nonsignificant value (Hair et al., 2016). Therefore, the lack of statistical power under these circumstances was not considered problematic.

Two instances were identified with an acceptable value. In segment A, likeability scored 0.830 and, in the other segment, willingness behaviour scored 0.827 with an associated significance level of 0.10. Furthermore, in segment A, similarity was significantly (p-value: < 0.01) related to expertise. As a result, a possible Type II error was not relevant. In segment B, the relationship between similarity and willingness behaviour was marginally significant (p-value: < 0.10). The combination of a lack of power and a lower significance level indicated that conclusions based on this relationship were tentative.

Table 31: Power analysis

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Full dataset</th>
<th></th>
<th></th>
<th>Segment A</th>
<th></th>
<th></th>
<th>Segment B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R²</td>
<td>Power</td>
<td>R²</td>
<td>Power</td>
<td>R²</td>
<td>Power</td>
<td></td>
</tr>
<tr>
<td>Benevolence</td>
<td>1</td>
<td>0.117</td>
<td>0.979*</td>
<td>0.252</td>
<td>0.996*</td>
<td>0.043</td>
<td>0.605*</td>
</tr>
<tr>
<td>Integrity</td>
<td>1</td>
<td>0.200</td>
<td>1.000*</td>
<td>0.308</td>
<td>1.000*</td>
<td>0.120</td>
<td>0.906*</td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>1</td>
<td>0.134</td>
<td>0.992*</td>
<td>0.213</td>
<td>0.982*</td>
<td>0.077</td>
<td>0.827*</td>
</tr>
<tr>
<td>Power</td>
<td>1</td>
<td>0.014</td>
<td>0.463c</td>
<td>0.016</td>
<td>0.324c</td>
<td>0.022</td>
<td>0.388c</td>
</tr>
<tr>
<td>Expertise</td>
<td>1</td>
<td>0.082</td>
<td>0.887a</td>
<td>0.149</td>
<td>0.881a</td>
<td>0.040</td>
<td>0.578c</td>
</tr>
<tr>
<td>Likeability</td>
<td>1</td>
<td>0.008</td>
<td>0.319c</td>
<td>0.074</td>
<td>0.830c</td>
<td>0.004</td>
<td>0.151c</td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>7</td>
<td>0.274</td>
<td>1.000a</td>
<td>0.354</td>
<td>0.995a</td>
<td>0.289</td>
<td>0.950a</td>
</tr>
<tr>
<td>Organisational trust</td>
<td>1</td>
<td>0.433</td>
<td>1.000a</td>
<td>0.422</td>
<td>1.000a</td>
<td>0.543</td>
<td>1.000a</td>
</tr>
<tr>
<td>Anticipated added value</td>
<td>8</td>
<td>0.376</td>
<td>1.000a</td>
<td>0.332</td>
<td>0.986a</td>
<td>0.533</td>
<td>1.000a</td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>3</td>
<td>0.459</td>
<td>1.000a</td>
<td>0.474</td>
<td>1.000a</td>
<td>0.481</td>
<td>1.000a</td>
</tr>
</tbody>
</table>

a for Type I significance of 0.01; b for Type I significance of 0.05; c for Type I significance of 0.10
**Effect sizes**

For the complete dataset and both segments, effects sizes for salesperson trust, anticipated added value, and anticipated future interaction were reported and compared. Effects sizes of 0.02 were considered small effects. Effect sizes that approximated 0.15 were assessed as medium, and scores around 0.35 were considered large.

For salesperson trust, insignificant or small effect sizes were found, except for willingness behaviour (0.116) in segment A. Regarding anticipated added value, medium effects were reported for organisational trust (0.178), and, to a lesser extent, for expertise (0.109), and likeability (0.090) in segment B. Other effect sizes were evaluated as not significant or small. Small negative effect sizes were found for integrity and willingness behaviour on salesperson trust in segment A, and of salesperson trust on anticipated added value in all three model assessments.

Salesperson trust had a medium effect on anticipated future interaction in the complete dataset and segment A, and a smaller effect in segment B. Organisational trust had a small effect on anticipated future interaction in all three. Anticipated added value had the largest effect size in all three model assessments.

<table>
<thead>
<tr>
<th></th>
<th>Salesperson trust</th>
<th>Anticipated added value</th>
<th>Anticipated future Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full A B</td>
<td>Full A B</td>
<td>Full A B</td>
</tr>
<tr>
<td>Similarity</td>
<td>0.035 0.003 0.048</td>
<td>0.024 0.058 0.002</td>
<td></td>
</tr>
<tr>
<td>Benevolence</td>
<td>0.002 0.002 0.006</td>
<td>0.000 0.006 0.006</td>
<td></td>
</tr>
<tr>
<td>Integrity</td>
<td>0.003 0.003 -0.021</td>
<td>0.009 0.010 0.000</td>
<td></td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.064 0.116 -0.006</td>
<td>0.007 0.003 0.000</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>0.014 0.017 0.038</td>
<td>0.015 0.004 0.109</td>
<td></td>
</tr>
<tr>
<td>Expertise</td>
<td>0.004 0.014 0.015</td>
<td>0.058 0.020 0.090</td>
<td></td>
</tr>
<tr>
<td>Likeability</td>
<td>0.048 0.060 0.055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.000 0.000 0.000</td>
<td>0.144 0.230 0.079</td>
<td></td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.030 0.004 0.178</td>
<td>0.035 0.048 0.060</td>
<td></td>
</tr>
<tr>
<td>Anticipated added value</td>
<td></td>
<td>0.472 0.392 0.663</td>
<td></td>
</tr>
</tbody>
</table>
**Segment exploration**

In order to investigate the underlying causes of the distinct segments, descriptive statistics of buyers and moderator variables were examined. These were used to identify significant differences between the two segments by means of Chi-Square tests in SPSS 23 (IBM Corp., 2015).

The descriptive statistics used were: job description, age, gender, and job tenure. The moderator variables were: overall risk, financial risk, market risk, buyer dependency, seller dependency, and the product-service continuum. To obtain cells that contained sufficient observations for analysis, the variables of age, job, and tenure were transformed into ordinal data, using categories with a time span of ten years for age, and for job tenure. Congruently, categories one and two, and four and five of overall risk, market risk, financial risk, buyer and seller dependency and product-service continuum were combined.

The outcome was that none of the distributions proved significantly different for both segments. All *a priori* identified possible segmentation variables did not account for the heterogeneity found in the model-based segments.

**5.5.4 Mediation assessment**

The causal steps strategy (Baron and Kenny, 1986) was used to identify possible mediating effects between the proposed mediators of the similarity-salesperson trust relationship. Next, the significance of identified mediation effects was evaluated by means of a bootstrapping procedure (Preacher et al., 2007; Preacher and Hayes, 2008; Hair et al., 2016). The extent of possible mediation was evaluated by means of calculating Variance Account For (VAF), when support for significant mediation was found.

**Mediation identification**

The outcomes of the causal steps strategy indicated mediation when both paths were significant between similarity and the mediator, and the mediator and salesperson trust. Exclusion of the mediator led to a diminished path coefficient
for the similarity-salesperson trust relationship for partial mediation (Baron and Kenny, 1986). Possible full mediation was indicated when the similarity-salesperson trust relationship was insignificant, when the mediator was included, and insignificant when that mediator was included.

In segment B, no indications of moderation were identified. When the full dataset was used, willingness behaviour was identified as a possible partial mediator. The path between similarity and salesperson trust was significantly higher without willingness behaviour present, than when willingness behaviour was included. In segment A, willingness behaviour and likeability signalled possible mediation. The relationship between similarity and salesperson trust was significant without willingness behaviour present, and was insignificant with willingness behaviour present in the model. This consequently indicated possible full mediation.

**Mediation significance**

Variance accounted for (VAF), grounded in the work of Preacher and Hayes (2004), and recommended by Hair et al. (2016), was employed to assess the significance of the identified mediation effects. For significance testing through bootstrapping, the product of the path coefficients of the moderating paths were dived by the standard deviation of the product of the bootstrapping results of indirect effects. This resulted in a significant indirect path for willingness behaviour in both the full dataset assessment (t-value: 2.473) and segment A (t-value: 2.587). Possible mediation through likeability proved not significant (t-value: 1.361).

**Extent of mediation**

As tests indicated mediation by willingness behaviour in the full dataset, and in segment A, the extent of mediation for willingness behaviour was assessed with VAF analysis (Sarstedt et al., 2014; Hair et al., 2016). VAF scores were calculated by dividing the indirect effect by the total effect. Scores between 0.200 and 0.800 indicated partial mediation, and above 0.800 indicated full mediation (Hair et al., 2016). In both assessments, partial mediation through willingness behaviour was
indicated. The full dataset VAF score was 0.356. In segment A, the VAF score for willingness behaviour mediation was 0.704, which was considered close to full mediation.

**Summary**

In the full dataset, and in segment A, willingness behaviour was identified as a possible mediator. Likeability was also a possible mediator in segment A. For segment B, no mediation effects between similarity and salesperson trust were identified.

Based on a bootstrapping procedure, support was found for mediating effects by willingness behaviour assessment in the full dataset assessment, and in the cost-oriented segment. Mediation by likeability was assessed as not significant. Support for partial mediation by willingness behaviour was found in the full dataset assessment. In segment A, the outcomes suggested near full mediation.

**5.5.5 Predictive relevance**

Based on the number of cases in the full dataset, and in both segments, it was determined that omissions of the fifth, eighth, and tenth data points could be calculated. Again, scores lower than 0.000 were considered problematic.

*Table 33: Average Stone Geisser’s Q² scores*

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Average Stone Geisser’s Q²</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Salesperson benevolence</td>
<td>0.065</td>
<td>0.134</td>
<td>0.016</td>
</tr>
<tr>
<td>Salesperson integrity</td>
<td>0.117</td>
<td>0.184</td>
<td>0.064</td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.084</td>
<td>0.121</td>
<td>0.042</td>
</tr>
<tr>
<td>Salesperson power</td>
<td>0.005</td>
<td>0.000</td>
<td>-0.003</td>
</tr>
<tr>
<td>Salesperson expertise</td>
<td>0.045</td>
<td>0.077</td>
<td>0.019</td>
</tr>
<tr>
<td>Salesperson likeability</td>
<td>-0.002</td>
<td>0.026</td>
<td>-0.010</td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.103</td>
<td>0.150</td>
<td>0.036</td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.201</td>
<td>0.231</td>
<td>0.165</td>
</tr>
<tr>
<td>Anticipated added value</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>0.395</td>
<td>0.405</td>
<td>0.381</td>
</tr>
</tbody>
</table>
The Stone Geisser’s scores derived for these three analyses were averaged. Marginally negative scores were found in segment B for power and likeability. All other scores were considered satisfactory. Power did not have a significant path in segment B. However, the paths of likeability to salesperson trust, and anticipated added value, were assessed as significant. The predictive relevance of these paths was considered marginal.

5.5.6 Model fit

Contrary to CB-SEM, the Partial Least Squares analysis did not provide an absolute goodness-of-fit index, that would have made it possible to compare different models (Hair et al., 2012). Therefore, the variance explained in the full dataset model estimation is compared with the weighted average variance explained of the two segments. The averages were weighted based on the number of cases assigned to the respective segments.

For all dependent latent constructs, the weighted average variance explained of the two-segments model estimations were larger than the variance explained of the latent constructs of the full dataset structural model estimation. In three instances (salesperson power, salesperson trust, and anticipated future interaction), both segment $R^2$ scores were larger than the full model estimation score. This indicated that segmentation evaluations provided more accurate results than the complete dataset analysis.

Table 34: Explained variance comparison of the full dataset and the combined segments

<table>
<thead>
<tr>
<th>Construct</th>
<th>$R^2$ Complete</th>
<th>$R^2$ Segment A (n=83)</th>
<th>$R^2$ Segment B (n=79)</th>
<th>A/B $R^2$ weighted average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesperson benevolence</td>
<td>0.117</td>
<td>0.252</td>
<td>0.043</td>
<td>0.150</td>
</tr>
<tr>
<td>Salesperson integrity</td>
<td>0.200</td>
<td>0.308</td>
<td>0.120</td>
<td>0.216</td>
</tr>
<tr>
<td>Willingness behaviour</td>
<td>0.134</td>
<td>0.213</td>
<td>0.077</td>
<td>0.147</td>
</tr>
<tr>
<td>Salesperson power</td>
<td>0.014</td>
<td><strong>0.016</strong></td>
<td><strong>0.022</strong></td>
<td>0.019</td>
</tr>
<tr>
<td>Salesperson expertise</td>
<td>0.082</td>
<td>0.149</td>
<td>0.040</td>
<td>0.096</td>
</tr>
<tr>
<td>Salesperson likeability</td>
<td>0.008</td>
<td>0.074</td>
<td>0.004</td>
<td>0.040</td>
</tr>
<tr>
<td>Salesperson trust</td>
<td>0.274</td>
<td><strong>0.354</strong></td>
<td><strong>0.289</strong></td>
<td>0.322</td>
</tr>
<tr>
<td>Organisational trust</td>
<td>0.433</td>
<td>0.422</td>
<td>0.543</td>
<td>0.481</td>
</tr>
<tr>
<td>Anticipated added value</td>
<td>0.376</td>
<td>0.332</td>
<td>0.533</td>
<td>0.430</td>
</tr>
<tr>
<td>Anticipated future interaction</td>
<td>0.459</td>
<td><strong>0.474</strong></td>
<td><strong>0.481</strong></td>
<td>0.477</td>
</tr>
</tbody>
</table>
5.5.7 Summary

Based on the heterogeneity evaluation, a multigroup analysis provided two segments. Segment A consisted of eighty-three cases (51%), and segment B of seventy-nine cases (49%). In segment A, anticipated added value was found to be based on anticipated lower costs, and segment B more driven by higher profits. Comparing variance explained showed that both segments better fit the model than the complete dataset. None of the a priori identified descriptive statistics and moderators significantly explained segment membership. Except for two marginal outcomes for segment B, the predictive relevance of the models was confirmed.

In the measurement model, discriminant validity between benevolence and willingness behaviour did not meet the required threshold level. This did not result in collinearity at construct level. Also, the relationship between benevolence and salesperson trust was not significant, while the relationship between willingness behaviour and salesperson trust was. The scales of salesperson trust and organisational trust were problematic in segment A, as was discriminant validity between these two constructs. After deleting two items per scale, the scales were assessed as reliable, and a comparison of both the full scales and the adjusted scales did not result in content validity changes. Therefore, it was concluded that the measurement model was sufficiently valid and reliable, but assessment of the personal trust-organisational trust relationship was to be treated tentatively.

The multigroup analysis, and comparison of significance levels of the paths and variance explained, showed that the complete dataset model and the two segments differed. The variance explained in segment A was higher for the mediators of the similarity relationship and salesperson trust itself, while in segment B, added value and its antecedents were better explained. Overall, statistical power was sufficient. When lack of power was found, this coincided with very low $R^2$ values.

Effect sizes of salesperson trust were strongest for willingness behaviour in segment A and the full dataset. In segment B, this was likeability. Support was
found for partial mediation of the similarity-salesperson trust relationship in the full dataset analysis, and near full mediation in segment A. The highest effect size for the antecedents of anticipated added value in the full dataset evaluation was found for likeability. In segment A, this was benevolence. In segment B, this was both expertise and likeability.

5.6 Moderation analysis

Based on the literature review, risk perception, interdependence of both the buyer and the seller, and position on the product-service continuum were all identified as possible moderators of the relationships between similarity and benevolence, integrity, willingness behaviour, power, expertise, likeability, and salesperson trust.

Through calculating the interaction effects of these moderators and similarity, their moderating effect on these respective relationships were assessed. As PLS SEM is not capable of providing insight in the nature of the relationship (Hair et al., 2016), only the existence of moderation was evaluated. Firstly, a moderator was added to the model, followed by a bootstrapping procedure (five thousand resamples) to assess significance of the moderation effect.

Moderaters of the attraction mediators were only considered relevant when a mediator had a significant relationship with both similarity and either salesperson trust or anticipated added value. If moderators were significant and relevant, the nature of the interaction effect was evaluated by means of interaction plots in SPSS.

Risk perceptions

Three different operationalisations of risk perceptions were measured: overall risk, financial impact, and market risk. All three constructs were measured by means of a single item. Consequently, further validity and reliability assessments were not performed. Overall risk contained twenty-one missing cases. Financial impact and market risk had twenty-two missing cases. A pairwise deletion
procedure was followed, as this is the middle-ground between mean replacement and casewise deletion (Hair et al., 2016).

The direct relationship between similarity and willingness behaviour, power, expertise, likeability, and salesperson trust were not moderated by any of the risk operationalisations. Overall risk was found to moderate the similarity-integrity relationship. However, integrity was not identified to have a significant relationship with either salesperson trust or anticipated added value. Market risk and financial risk were found to moderate the similarity-benevolence relationship, in both the full dataset and in segment A. Market risk moderation had a p-value of 0.061 in the full dataset, and 0.015 in the segment A analysis. Financial risk moderation had an identical p-value in the full dataset, and a p-value of 0.019 in segment A.

Interaction plots (see appendix III) showed that the levels of perceived similarity were positively correlated with benevolence perceptions, when market risk and financial risk were considered low. When market risk and financial risk were high, benevolence perceptions were far less influenced by similarity perceptions.

**Interdependence**

Interdependence was operationalised with two three-item scales, measuring seller and buyer dependence. Both scales were added to the model, and checked for validity and reliability issues. All threshold criteria were met. There were twenty-one missing values in all items.

Three significant moderation effects were detected. The relationship between similarity and expertise (p-value: 0.088), and likeability (p-value: 0.067), were moderated by buyer dependency in the full dataset. Also, seller dependency moderated the similarity-integrity relationship. However, in all of these instances, such attraction mediators have significant relationships with both similarity and salesperson trust or anticipated added value.
**Product-service continuum**

The product-service continuum was also measured by means of a single item. Consequently, no assessment of the validity or reliability of this scale was provided. As with the dependence scales, this item had twenty-one missing values. There was one interaction effect of the product-service continuum that was significant in segment A: the similarity-integrity relationship (p-value 0.007). Based on the same premise as earlier assessments, this relationship moderation was not considered relevant.

<table>
<thead>
<tr>
<th>Table 35: P-values of interaction effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderators</td>
</tr>
<tr>
<td>Overall risk</td>
</tr>
<tr>
<td>Complete dataset</td>
</tr>
<tr>
<td>Segment A</td>
</tr>
<tr>
<td>Segment B</td>
</tr>
<tr>
<td>Market risk</td>
</tr>
<tr>
<td>Complete dataset</td>
</tr>
<tr>
<td>Segment A</td>
</tr>
<tr>
<td>Segment B</td>
</tr>
<tr>
<td>Financial risk</td>
</tr>
<tr>
<td>Complete dataset</td>
</tr>
<tr>
<td>Segment A</td>
</tr>
<tr>
<td>Segment B</td>
</tr>
<tr>
<td>Buyer dependency</td>
</tr>
<tr>
<td>Complete dataset</td>
</tr>
<tr>
<td>Segment A</td>
</tr>
<tr>
<td>Segment B</td>
</tr>
<tr>
<td>Seller dependency</td>
</tr>
<tr>
<td>Complete dataset</td>
</tr>
<tr>
<td>Segment A</td>
</tr>
<tr>
<td>Segment B</td>
</tr>
<tr>
<td>Product-service continuum</td>
</tr>
<tr>
<td>Complete dataset</td>
</tr>
<tr>
<td>Segment A</td>
</tr>
<tr>
<td>Segment B</td>
</tr>
</tbody>
</table>

n.s: not significant; a no significant relationship with similarity and salesperson trust or anticipated added value
Summary

There were no moderators that were supported unambiguously by the outcomes of the three analyses. Of the 126 interaction effects tested for, nine significant interaction effects were detected. The direct relationship between similarity and salesperson trust was not moderated by any of the proposed moderators.

Of those nine interaction effects, there were four relationships that were based on a significant correlation between perceived salesperson similarity and the mediating construct, and a significant relationship with the mediating attraction construct and salesperson trust or anticipated added value. This were market risk and financial risk in both the full dataset, and segment A. Benevolence perceptions were less influenced when buyers perceived market risk and financial risk as high.

5.7 The attraction-similarity hypothesis

It was posited that if attraction would lead to higher levels of perceived similarity (Morry, 2007), then the relationships between similarity and the other constructs needed to be significantly higher for dyads in which the buyer had decided to do business. Therefore, a multigroup analysis (Hair et al., 2016) was performed of the complete dataset. No evaluation of the separate segment samples was executed, as the sample sizes were considered too small for this analysis. One group contained all dyads in which the buyer had already decided to do business with the seller. The other group contained all dyads in which the buyer decided not to do business with that particular seller, or had not decided yet. All p-values of these differences in relationships were considerably higher than 0.10 and lower that 0.90 (Sarstedt, Henseler, et al., 2011).

The multigroup analysis showed that the relationships between similarity and benevolence, power, expertise, and salesperson trust did not differ significantly. Support was found for the difference in the relationship between similarity and integrity (p-value: 0.954). The difference in path coefficients was 0.239. Also, support was found for the difference between the two groups, regarding the
similarity-likeability relationship (p-value: 0.950). The difference in path coefficients was 0.612. In both cases, perceived similarity was higher for those dyads that had decided to do business.

Marginal (p-value: 0.093) support was found for a difference in the relationship between similarity and willingness behaviour, but this did not support the rationale that similarity perceptions were enhanced by attraction. The multigroup analyses indicated that the path coefficient of the relationship between similarity and willingness behaviour was lower (path difference: 0.176) for buyers that had decided to do business.

**Summary**

The results of the attraction-similarity analysis indicated that higher integrity and likeability perceptions led to higher similarity perceptions, when buyers had decided to engage in future interaction. Thus, supporting the attraction-similarity hypothesis. Concerning willingness, the outcomes contradicted the attraction-similarity hypothesis. No significant differences were found for benevolence, power, and expertise.

**5.8 Hypotheses evaluation**

Based on the measurement and structural model assessments of the proposed conceptual framework, and the heterogeneity evaluation, three distinct lenses were postulated: the full dataset, and both segments. As these three lenses represented a valid and reliable view, every hypothesis was evaluated according to them. Thus, a multifaceted analysis per hypothesis was provided.

**5.8.1 Similarity, salesperson trust, mediation and moderation**

The first two hypotheses stipulate that similarity is positively related to the task and social attraction constructs, and that these constructs mediate the similarity-attraction relationship. The third hypothesis stated that risk perceptions, interdependence, and the assessed position on the product-service-continuum,
moderated the relationship between similarity and the attraction constructs. Lastly, it was hypothesised that benevolence, integrity, willingness behaviour, power, expertise, and likeability enhanced anticipated added value.

**Similarity as an antecedent**

In the full dataset, similarity was positively related to all task attraction constructs, except for power. Also, the similarity-likeability relationship was not assessed to be significant. These outcomes were comparable to the evaluation in segment A, apart from the fact that the similarity-likeability relationship was found to be significant. In contrast, similarity was only found to be positively and marginally significant in relation to integrity and willingness behaviour. All other relationships with similarity were not significant.

**Mediation of the similarity-salesperson trust relationship**

Given that benevolence, integrity, power, and expertise were not significantly related to salesperson trust in all three assessments, these constructs did not mediate the similarity-salesperson trust relationship. In segment B, likeability was significantly related to salesperson trust. However, the similarity-likeability relationship was not significant in this segment. Furthermore, the relationship between willingness behaviour and salesperson trust was not significant in segment B.

The full dataset assessment indicated a path coefficient between salesperson similarity and salesperson trust of 0.187 with a p-value under 0.05. The effect size of this direct effect was 0.030. Aside from this direct effect, support for partial mediation by willingness behaviour was found (VAF score: 0.356). The variance explained of willingness behaviour was 0.134. The segment A analysis resulted in a path coefficient of 0.076, which was not significant. However, the path between similarity and salesperson trust in this segment was nearly fully mediated (VAF score: 0.704) by willingness behaviour. The variance explained of willingness behaviour by similarity was 0.213. No support for mediation was found in segment B.
**Moderating the similarity-attraction effect**

When one takes into account that moderation effects only steer the similarity-attraction effect when attraction mediators have a significant relationship with similarity, as well as salesperson trust or anticipated added value, overall risk, interdependency (buyer and seller dependence), and the assessed position on the product-service-continuum do not moderate the similarity-attraction effect. For the similarity-benevolence relationship, support was found for moderation by both market risk and financial risk perceptions of buyers, in both the full dataset and segment A analyses.

**Anticipated added value and attraction assessments**

The hypothesised model contained relationships between the six attraction constructs and anticipated added value. Together with salesperson trust, and organisational trust, these constructs explained 0.376 of variance in the full dataset, 0.332 in segment A, and as much as 0.533 in segment B.

Benevolence was positively and marginally significant in relation to anticipated added value, for both the full dataset and segment A. In segment B, this relationship was not significant. The likeability-anticipated added value relationship was highly significant in segment B and in the full dataset. However, no significant relationship for likeability was identified in segment A. Expertise had a positive and highly significant relationship in segment B. No support was found for positive relationships with anticipated added value for integrity, willingness behaviour, or power.

**5.8.2 Trust and anticipated added value**

It was hypothesised that higher levels of salesperson trust caused higher levels of both organisational trust and anticipated added value. Furthermore, it was stipulated that organisational trust enhanced anticipated added value.
Salesperson trust – organisational trust

For the purpose of this study, salesperson trust was hypothesised as an antecedent of organisational trust, although reviewed literature indicated that this is a complex relationship. Such complexity was underlined in this study, irrespective of the operationalisation chosen. Collinearity scale issues were identified, which were underlined by high and significant path coefficients in all assessments.

Despite the fact that all three assessments provided a positive and significant relationship between salesperson trust and organisational trust, no conclusion was provided for the hypothesis regarding the salesperson trust-organisation trust relationship.

Influence of trust on anticipated added value

Besides the attraction constructs, salesperson trust and organisational trust were also hypothesised to enhance anticipated added value. Despite collinearity issues that were detected between the salesperson trust and organisational trust scales, distinct differences were found in the way these constructs related with anticipated added value in the full dataset and in segment B analyses. The outcomes did not support a positive relationship between salesperson trust and anticipated added value in any of the three analyses. However, a positive relationship between organisational trust and anticipated added value was supported by the full dataset, and segment B analysis.

5.8.3 Anticipated future interaction explained

The model explained nearly half of the variance of anticipated future interaction. The $R^2$ value in the full dataset analyses was 0.459. In the cost-oriented segment, 0.474 of variance was accounted for, and in the other segment, an $R^2$ value of 0.481 was found.

Most of the variance of anticipated future interaction was explained by anticipated added value. A high significance level was found in all three model assessments,
in combination with high path coefficients and effect sizes. Salesperson trust and anticipated added value had a positive and significant relationship with anticipated future interaction in all three model assessments.

Smaller and negative path coefficients were found for the relationship between organisational trust and anticipated added value. These were the only two path coefficients that were assessed as both negative and significant in all model assessments. In segment A, this path was assessed as negative but not significant. Assessment of a model that only contained organisational trust and anticipated future interaction provided a positive and significant relationship between the two. This indicated a positive relationship under the condition of increased salesperson trust and anticipated added value levels.

Consequently, the hypothesis that salesperson trust and anticipated added value are positively related to anticipated future interaction were fully supported. Partial support was found for the positive organisational trust-anticipated future interaction hypothesis, but it was also found that this relationship is conditional.

5.8.4 Attraction-similarity effect

No support for the reverse attraction-similarity hypothesis (Morry, 2007) was found in the relationships between benevolence, power, or expertise and similarity. Marginal support was found in the relationships between integrity and similarity, and likeability and similarity. Integrity was not significantly related to salesperson trust or anticipated added value.

Conversely, the outcomes of the willingness behaviour-similarity relationship provided contradict the evidence. Based on these marginal and contrary findings, it was concluded that no support for the attraction-similarity hypothesis was found for task attraction, and limited support for social attraction.
Table 36: Hypotheses overview

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Full dataset</th>
<th>Segment A</th>
<th>Segment B</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1:</strong> perceived similarity is positively related to benevolence, integrity, willingness behaviour, power, expertise, and likeability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Similarity-benevolence</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>partial support</td>
</tr>
<tr>
<td>Similarity-integrity</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>supported</td>
</tr>
<tr>
<td>Similarity-willingness behaviour *</td>
<td>supported</td>
<td>Supported</td>
<td>supported</td>
<td>supported</td>
</tr>
<tr>
<td>Similarity-power</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Similarity-expertise</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Similarity-likeability</td>
<td>not supported</td>
<td>Supported</td>
<td>not supported</td>
<td>partial support</td>
</tr>
<tr>
<td>Similarity-salesperson trust</td>
<td>supported</td>
<td>not supported</td>
<td>not supported</td>
<td>partial support</td>
</tr>
<tr>
<td><strong>H2:</strong> benevolence, integrity, willingness behaviour*, power, expertise, and likeability mediate the relationship between perceived similarity and salesperson trust</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediation by benevolence of SS-ST</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Mediation by integrity of SS-ST</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Mediation by willingness behaviour of SS-ST *</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>supported</td>
</tr>
<tr>
<td>Mediation by power of SS-ST</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Mediation by expertise of SS-ST</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Mediation by likeability of SS-ST</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td><strong>H3:</strong> risk perception, interdependence, and position on the product-service continuum moderate the relationship between perceived similarity and benevolence, integrity, power expertise, and likeability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderation by overall risk</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Moderation by market risk (benevolence)</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>partial support</td>
</tr>
<tr>
<td>Moderation by financial risk (benevolence)</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>partial support</td>
</tr>
<tr>
<td>Moderation by seller dependency</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Moderation by buyer dependency</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Moderation by product-service continuum</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td><strong>H4:</strong> benevolence, integrity, willingness behaviour*, power, expertise, and likeability are positively related to anticipated added value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benevolence-anticipated added value</td>
<td>supported</td>
<td>Supported</td>
<td>not supported</td>
<td>partial support</td>
</tr>
<tr>
<td>Integrity-anticipated added value</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Willingness behaviour-anticipated added value</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Power-anticipated added value</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td>Expertise-anticipated added value</td>
<td>not supported</td>
<td>not supported</td>
<td>supported</td>
<td>partial support</td>
</tr>
<tr>
<td>Likeability-anticipated added value</td>
<td>supported</td>
<td>not supported</td>
<td>supported</td>
<td>partial support</td>
</tr>
<tr>
<td><strong>H5:</strong> trust in the salesperson enhances trust in the organisation represented</td>
<td>not provided</td>
<td>not provided</td>
<td>not provided</td>
<td>not provided</td>
</tr>
<tr>
<td><strong>H6:</strong> trust in the salesperson enhances anticipated added value</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
<td>not supported</td>
</tr>
<tr>
<td><strong>H7:</strong> trust in the organisation represented enhances anticipated added value</td>
<td>supported</td>
<td>not supported</td>
<td>supported</td>
<td>partial support</td>
</tr>
<tr>
<td><strong>H8:</strong> trust in the salesperson increases anticipated future interaction</td>
<td>supported</td>
<td>Supported</td>
<td>supported</td>
<td>supported</td>
</tr>
<tr>
<td><strong>H9:</strong> trust in the organisation represented increases anticipated future interaction</td>
<td>supported</td>
<td>not supported</td>
<td>supported</td>
<td>partial support</td>
</tr>
<tr>
<td><strong>H10:</strong> trust in anticipated added value increases anticipated future interaction</td>
<td>supported</td>
<td>Supported</td>
<td>supported</td>
<td>supported</td>
</tr>
<tr>
<td><strong>H11:</strong> the relation between similarity and likeability, benevolence, integrity, power and expertise is stronger when the buyer has decided to cooperate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benevolence-similarity</td>
<td>not supported</td>
<td>N/A</td>
<td>N/A</td>
<td>not supported</td>
</tr>
<tr>
<td>Integrity-similarity</td>
<td>supported</td>
<td>N/A</td>
<td>N/A</td>
<td>supported</td>
</tr>
<tr>
<td>Willingness behaviour-similarity</td>
<td>contradicted</td>
<td>N/A</td>
<td>N/A</td>
<td>contradicted</td>
</tr>
<tr>
<td>Power-similarity</td>
<td>not supported</td>
<td>N/A</td>
<td>N/A</td>
<td>not supported</td>
</tr>
<tr>
<td>Expertise-similarity</td>
<td>not supported</td>
<td>N/A</td>
<td>N/A</td>
<td>not supported</td>
</tr>
<tr>
<td>Likeability-similarity</td>
<td>supported</td>
<td>N/A</td>
<td>N/A</td>
<td>supported</td>
</tr>
</tbody>
</table>

* Willingness behaviour added after principal components analysis (see 5.2.2).

b Under the condition that salesperson trust and/or anticipated added value increase.
5.9 Summary

With a combination of chain-referral and self-selected sampling, 165 valid cases were collected. The sample consisted of around 85% percent male and 15% female respondents, and was comprised of fulltime buyers (40%); people with a focus on buying (14%); managers with operational buying tasks (37%); and self-employed with operational buying tasks (9%). The data was not normally distributed. Three cases were omitted as a result of an outlier analysis. Willingness behaviour was established as a sixth possible mediator of the similarity-salesperson trust relationship, after performing a principal component analysis.

Two segments were found through an unobserved heterogeneity analysis, that both approximated half the sample. The only significant distinction found was that segment A contained cost-oriented dyads, and segment B consisted of more profit-oriented dyads.

A discriminant validity issue was detected in segment A, between the measurement scales of benevolence and willingness behaviour. Consequences were limited, as no collinearity at construct level was found. In segment B, two items of the scales of salesperson trust and organisational trust were not reliable and lacked discriminant validity. A comparative structural model analysis, with two-item scales that met all the requirements, showed that content validity was not harmed by the lack of discriminant validity. However, tentative assessment of the salesperson trust-organisation trust relationship and organisational trust and anticipated future interaction was warranted.

Predictive relevance of power and likeability proved limited in all three model assessments. Despite the smaller sample sizes, both segments had acceptable levels of statistical power, and explained more variance than the full dataset.

No support was found for the hypothesis that integrity, power and expertise were involved in the similarity-attraction effect. Furthermore, no relevant moderation effects were detected for overall risk, interdependency, and assessed product-
service continuum position. Support was found for the moderation of the similarity-benevolence relationship by market risk and financial risk in both the full dataset and segment A.

Benevolence and the construct of willingness behaviour, which was added to the model as a result of a principal components analysis, proved important in both the full dataset and segment A model assessments. Likeability was identified as an influential antecedent in all model assessments. This coincided with limited support for the attraction-similarity hypothesis. Expertise was a highly significant antecedent of anticipated added value in segment B. Support was found for mediation of the similarity-salesperson trust relationship by willingness behaviour in the full dataset, as well as in segment A.

Salesperson trust was both positively and significantly related to organisational trust, but not with anticipated added value. Organisational trust was positively related with anticipated added value in the full dataset and segment B assessments. Both salesperson trust and anticipated added value were positively related with anticipated future interaction. For the hypothesis that organisational trust is positively related to anticipated added value, partial support was found in the full dataset and segment B analyses, but under the condition that this coincides with higher assessments of salesperson trust and anticipated added value.

As a result of marginal and ambivalent outcomes, it was concluded that no support was found for the alternative attraction-similarity hypothesis, regarding task attraction and limited support for social attraction. Based on the results, an overview was provided of the outcomes per hypothesis. These findings were used for further discussion in the next chapter.
Chapter 6

Discussion:

Firstly, the outcomes of the empirical study are given and the similarity-attraction effect within the context of this study is discussed. Then the proposed similarity-attraction framework is reviewed, both at construct level as well as at model level. Finally, the use of systematic literature reviews in marketing research is addressed, followed by a discussion of the limitations the this study.

6.1 Understanding the role of the similarity-attraction effect

Based on the results of the empirical study, it is illustrated how the similarity-attraction effect drives future interaction in initial business-to-business encounters with Dutch professional buyers. Then, the similarity-attraction effect in this specific context is discussed in more detail.

6.1.1 Initial encounters with Dutch professional buyers

Firstly, the outcomes, based on a homogeneous view are presented, followed by a representation of the outcomes based upon a heterogeneous view, as a result of the unobserved heterogeneity analysis.

Homogeneous view

Similarity perceptions increase trust in salespeople, which, in turn, has a positive effect on their intentions to do business with those salespeople. Positive similarity assessments also increase assessed willingness behaviour of salespeople, which, in turn, increases trust in salespeople (Montoya and Horton, 2014).

Although these significant and positive relationships are present, their explanation of the assessment of trust in salespeople is limited. Over 70% of the variance of salesperson trust is not explained by the antecedents. Despite the fact that a mediating effect is present through willingness behaviour, just 13% of the variance of willingness behaviour is explained by similarity perceptions. Lastly,
the effect sizes of willingness behaviour and likeability, though not significantly related to similarity, are both larger.

Perceiving salespeople as similar causes higher levels of perceived benevolence, which has a positive but marginal effect on how buyers assess the anticipated added value of an offer. Although this a marginal effect, it is still relevant because anticipated added value is the most important driver of future interaction for buyers. When buyers consider the market risk and financial risk to be high, the influence of perceived similarity on benevolence assessments decreases.

![Diagram](image)

Figure 14: Relevant significant relationships of the homogeneous model assessment

**Heterogeneous view**

An important finding of this study is that overall evaluation obscures the relationships (Ringle et al., 2010; Hair et al., 2016) of two distinct groups of dyads, which are equal size. This study shows that these segments do not differ based on descriptive statistics like gender, job tenure, or age. Nor do they differ on moderating variables such as risk perception, interdependency, or product-
service continuum. In one group of dyads, buyers mainly focus on lowering costs, and, in the other group, buyers deem higher profits more important.

**Cost-oriented dyads** differ from the overall sample, in that higher similarity perceptions do not directly lead to enhanced trust levels. Apart from a marginal indirect effect on salesperson trust through likeability, the main effects of similarity perceptions on salesperson trust are nearly fully mediated (Montoya and Horton, 2014) by the expectations of buyers that salespeople will exhibit behaviour that is in line with their interests (willingness behaviour).

Even though similarity is identified as a significant antecedent of willingness behaviour, it accounts for a relatively small portion of how buyers assess the willingness behaviour of salespeople. Regarding the relationship between perceived similarity and salesperson likeability, the outcomes result from the attraction-similarity effect, rather than the similarity-attraction effect. This conclusion is supported by the low predictive relevance of the model for salesperson likeability.

Anticipated added value is influenced by the benevolence perceptions of buyers, which in turn are influenced by similarity. In line with the homogenous view, the influence of similarity perceptions on perceived benevolence are larger when buyers consider market and financial risk irrelevant.

In this segment, buyers are much more inclined to engage in future business when they trust a salesperson. The effect size of salesperson trust on anticipated future interaction is much higher than in the homogeneous view, or the more profit-oriented segment, as is the path coefficient. Trust in the organisation that the salesperson represents does not influence this decision.
In more profit-oriented dyads, there is no evidence of the similarity-attraction effect. In this group, trust in salespeople is not significantly driven by any of the antecedents of the conceptual framework, except for likeability. Perceived expertise of salespeople is the most important driver of expectations regarding added value, together with likeability perceptions and trust in the organisation that the salesperson represents. Both expertise and likeability assessments are not influenced by similarity perceptions in more profit oriented dyads.
Additional findings contend that power assessments of buyers are not relevant in the similarity-attraction effect during initial business-to-business sales encounters. Furthermore, integrity assessments are strongly influenced by similarity perceptions. However, integrity assessments do not influence either trust in salespeople or anticipated added value. Trusting the seller’s organisation only leads to higher intentions to do business in the future if this is backed up by high perceptions of trust in salespeople and anticipated added value.

### 6.1.2 The similarity-attraction effect

An overall conclusion of the empirical study is that when Dutch professional buyers assess a salesperson as similar to themselves, this will more often lead to future interaction than with salespeople that are perceived dissimilar (Evans, 1963).

However, this inference assumes that the dyads can be analysed as a homogeneous sample. The effects of similarity on attraction are better explained when analysed as segments, based on cost-oriented and profit-oriented dyads, as the variance explained in the combined segmented model assessments exceeds that of the full dataset. When adopting this view, the similarity-attraction
effect is not present in half of the dyads, and nearly fully mediated in the remainder.

Contiguous with earlier research (Lichtenthal and Tellefsen, 2001), this study reflects the complexity of the effects of similarity perceptions in a sales context. Lichtenthal and Tellefsen (2001) argue that this is caused by measuring either deep or surface similarity. The outcomes of this study do not underpin this stance, as this study employs an overall similarity operationalisation or non-componential approach (Doney and Cannon, 1997; Kenny et al., 2006), and does not provide consistent results, regarding similarity-attraction effects.

The results of this study show that an alternative explanation for this inconsistency is heterogeneity, as two groups of dyads are identified: cost-oriented and profit-oriented. It was found that in cost-oriented dyads, willingness (benevolence and willingness behaviour) facilitate the similarity-attraction effect, while capability (expertise) is an important antecedent in more profit-oriented dyads. Due to the limited sample size, and the characteristics of the sample, it is not argued that this is a universal explanation of all inconsistencies in sales research on the similarity-attraction effect. However, it is postulated that checking for unobserved heterogeneity (Hair et al., 2016) is a necessity in order to further general understanding of complex social processes in sales research, and for the similarity-attraction effect in particular.

A question that arises is: what causes the occurrence or absence of the similarity-attraction effect in the respective segments? A possible explanation is that the cost-oriented segment is comprised of dyads where buyers that activated heuristics to evaluate the initial encounter; while the more profit-oriented segment represent dyads in which buyers use high effort processing (Fiske, 1998; Zaki and Ochsner, 2011; Doré et al., 2014). Anticipating profit involves generating hypotheses based on the context and the information, while comparing costs is considered a less complex task.
This can also explain that in cost-oriented dyads, trusting the seller’s organisation does not influence future interaction, as buyers base their decision upon information readily available at that time. Although this is an appealing explanation, there are many other possible explanations, such as: business psychographics (Barry and Weinstein, 2009), strategic typologies (Miles et al., 1978), personal traits (Nicholson et al., 2005), or type of buying task (Lemke et al., 2011).

Another view that explains the ambiguous results of studies in this field is the attraction-similarity hypothesis (Weitz, 1983; Morry, 2007). Regarding social attraction (Leigh and Summers, 2002; Michinov and Monteil, 2002), this study supports the notion that, in social attraction processes, the attraction-similarity effect, or at least a recursive relation, is present. The fact that the predictive relevance (Hair et al., 2016) of similarity for likeability is judged as insufficient only compounds this further. This is in line with findings in social psychology (Morry, 2007; Morry et al., 2013). Therefore, it is stated that, although likeability enhances both salesperson trust and anticipated added value, enhancing similarity perceptions will not result in consistent higher perceptions of likeability by professional buyers.

Only the similarity-benevolence relationships in the full dataset and segment A analyses are moderated by market and financial risk perceptions (Kraljic, 1983). One would also expect (Dekker and Wright, 2012; Nevi, 2015) that Dutch professional buyers would opt for cost- or profit-orientation based on market and financial risk perceptions. As this is not the case, it is postulated that defining a sourcing approach based on this theory (Nevi, 2015) is predominantly an espoused theory, rather than a theory-in-use (Moon, 2013).

6.2 The similarity-attraction framework

Before merits and caveats of the employed similarity-attraction framework are addressed, a more detailed discussion of two possibly controversial constructs (willingness behaviour and trust) is appropriate.
### Willingness behaviour

The principal components analysis shows that the constructs of benevolence and integrity are confirmed. However, a new component emerges comprised of two items from the benevolence scale and one from the integrity scale. The interpretation of the difference between these three items, and the remaining items of benevolence and integrity, is a prediction of salesperson behaviour relevant to the context of the buyer versus a general assessment of an attitude of the salesperson by the buyer.

If we look at the items: salespeople have high willingness behaviour scores if they are perceived to not knowingly hurt buyers; keep interests of buyers at heart; and keep their promises. A possible rationale is that these items reflect specific behaviours buyers appreciate, and are a result of benevolence and integrity of salespeople.

#### Table 37: Reformulation of willingness scales

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salesperson benevolence</strong></td>
<td></td>
</tr>
<tr>
<td>SB1</td>
<td>This salesperson is very concerned about our welfare.</td>
</tr>
<tr>
<td>SB2</td>
<td>Our needs and desires are very important to this salesperson.</td>
</tr>
<tr>
<td>SB5</td>
<td>This salesperson will go out of its way to help us.</td>
</tr>
<tr>
<td><strong>Salesperson integrity</strong></td>
<td></td>
</tr>
<tr>
<td>SI1</td>
<td>This salesperson has a strong sense of justice.</td>
</tr>
<tr>
<td>SI3</td>
<td>This salesperson tries hard to be fair in dealings with others.</td>
</tr>
<tr>
<td>SI4</td>
<td>This salesperson’s actions and behaviours are consistent.</td>
</tr>
<tr>
<td>SI5</td>
<td>I like this salesperson’s values.</td>
</tr>
<tr>
<td>SI6</td>
<td>Sound principles seem to guide this salesperson’s behaviour.</td>
</tr>
<tr>
<td><strong>Salesperson willingness behaviour</strong></td>
<td></td>
</tr>
<tr>
<td>WB1</td>
<td>This salesperson would not knowingly do anything to hurt us (SB3).</td>
</tr>
<tr>
<td>WB2</td>
<td>This salesperson really looks out for what is important to us (SB4).</td>
</tr>
<tr>
<td>WB3</td>
<td>I never have to wonder whether this salesperson will stick to his/her word (SI2).</td>
</tr>
</tbody>
</table>

In service marketing literature, similar items are used to describe service quality in a business-to-business context. These items reside under the dimension of hard process quality (Gounaris and Venetis, 2002; Gounaris, 2005), and prove to
have the highest impact on trust and future interaction (Papur et al., 2013). Another theoretical underpinning of willingness behaviour is the importance of salesperson service behaviour (Ahearne et al., 2007), in contrast to attitudes of salespeople. Studies show that diligence, which comprises reliability and responsiveness (Ahearne et al., 2007; Amyx and Bhuian, 2009), is related to salesperson success, and is reflected by willingness behaviour items. It is also possible that buyers do not care about the underlying benevolence and integrity attitudes of salespeople, as long as they deliver (Blocker, Houston, et al., 2012).

Although there are compelling similarities between hard process quality and salesperson service behaviour on the one hand, and willingness behaviour on the other, it is possible that buyers do not base their trust on expected salesperson willingness behaviour. It has to been taken into account that the three items do not reflect a latent construct or signal omitted constructs, but are simply caused by correlation of error terms (Bascle, 2008).

**Measuring trust**

Though not intended as a major focal point of this study, the search for an operationalisation of salesperson and organisational trust, that did not contain elements of the assessments that were proposed to instil trust, led to an ongoing discussion of measuring trust in management research (McEvily and Tortoriello, 2011). It is posited that trustworthiness beliefs are assessments of capability or willingness that lead to trust (the intention to accept vulnerability), which, in turn, leads to trusting behaviours (in this case future interaction). McEvily and Tortoriello (2011) state that most scales intended to measure trust actually measure trustworthiness beliefs. Such beliefs are referred to as assessments in this study.

By combining scales for specific assessments with an operationalisation of trust, including items that measure trustworthiness beliefs, the influence of a specific assessment is obscured as the relationship between the assessment and trust is most probably overestimated. This can even lead to models where trust is
subdivided into competency trust, integrity trust, and benevolence trust (Dowell et al., 2014). In order to mitigate for this issue, the trust scale of Mayer and Davis (1999) is adapted and used.

In this study, organisational trust and, to a lesser extent, salesperson trust measurement proved marginally consistent. Although, at construct level, collinearity was not an issue, at item level it was problematic. Furthermore, the first two items “I would not mind this salesperson/organisation to have influence over issues that are important to us” and “I would be willing to let this salesperson/organisation to have complete control over our cooperation” have an acceptable but low indicator of reliability. A possible explanation is that these statements are fitting for measuring trust within an organisation (Mayer and Davis, 1999), but do not capture trust in salespeople and suppliers.

**The conceptual framework**

An important finding of the systematic literature review is that there are two schools of thought regarding attraction: attraction as a construct, or attraction as a process. Mortensen (2012) explicitly calls for definition and use of an attraction construct. It is posited that this paradigm would result in a construct that approximates likeability (Zimmer and Hugstad, 1981). This research project advocates conceptualising attraction as a complex social process (Campbell et al., 1988), in which positive assessments of others influences attitudes and behaviours (Caballero and Resnik, 1986), as this is more in line with current thinking in social psychology (Montoya and Horton, 2014). Identifying these two paradigms, makes it possible for future researchers to explicitly state the paradigm they hold.

The conceptual framework of this study is predominantly informed by the work of Montoya and Horton (2008; 2013, 2014). They state that similarity effects are fully mediated by perceived willingness and capability. When we adhere to the homogeneous interpretation of the data, we conclude that there is only partial support for their two-dimensional model. In the full dataset analysis, a significant
direct relationship between similarity and salesperson trust is present, and willingness behaviour partially mediates this relationship. However, when we adopt a heterogeneous view, we find that, in those dyads where the similarity-attraction effect is present (e.g. the cost oriented segment), near full mediation through willingness behaviour is present.

The assumption that willingness and capability are higher-order constructs of their respective assessments is not supported. Furthermore, there are no indications that capability assessments are involved in the similarity-attraction process. The addition of social attraction (Leigh and Summers, 2002; Michinov and Monteil, 2002), represented by likeability, is considered appropriate in order to explain the similarity-attraction effect as an indirect effect of similarity present in the cost-oriented segment.

The most radical contribution of the proposed similarity-attraction framework is that a similarity assessment is an antecedent of other attraction assessments (Montoya and Horton, 2014), contrary to extant marketing literature on initial sales encounters in a business-to-business context (Busch and Wilson, 1976; Henthorne et al., 1992; Coulter and Coulter, 2002; Leigh and Summers, 2002; Wood, 2004; Wood, Boles, Babin, et al., 2008; Wood, Boles, Johnston, et al., 2008; Geigenmüller and Greschuchna, 2011). Given the mediation effects of willingness behaviour, and the indirect effect through likeability, this contribution furthers our understanding of the role of similarity.

Although the model incorporates all of the constructs associated with the similarity-attraction effect in relevant extant marketing and social psychology literature, it is possible that constructs are omitted. As a limited portion of the variance in salesperson trust is explained by the model, and willingness behaviour is central in the similarity-attraction effect, it is proposed that other salesperson behaviour constructs (Ahearne et al., 2007), like information communication, inducements, empathy, and sportsmanship, can also play a role in the similarity-attraction effect.
6.3 Systematic literature review in marketing

A secondary aim of this research project is addressing the use of systematic literature reviews in marketing research. In this study, two systematic literature reviews were executed and synthesised. Both systematic literature reviews aim to identify, evaluate, and synthesise all relevant literature on the similarity-attraction effect (Okoli and Schabram, 2010). The first review is situated in the field of social psychology, and the second review in marketing research.

Marketing is interdisciplinary. Its existence depends on the ability to integrate behavioural and social sciences, communication, and economics (Kimmel, 2012). The main issue of narrative literature reviews is that it is often impossible to identify whether a review is mainly construed based on the biases of the researcher (Rousseau et al., 2008; Denyer and Tranfield, 2009), or it it fully covers all main schools of thought and current thinking of a discrete discipline. Based on the comparative reviews in this study, it is posited that such a criticism is relevant. Although there are some exceptions (Jones et al., 1998; Smith, 1998; Ellegaard, 2012; Mortensen, 2012), many literature reviews of the marketing studies on the similarity-attraction effect restrict themselves to references from within marketing, or refer to other multidisciplinary fields, like management, without any reference to the source discipline. Many of the studies that reference social psychology could be considered opportunistic in that a limited number of references is used, all of which complement the narrative.

Based on these findings, systematic literature reviews are identified as a possible improvement for the interdisciplinary nature of sales and marketing research. The main downside of a systematic literature review is that it is time consuming. Furthermore, multidisciplinary researchers are not experts in the disciplines they cover. Therefore, effectiveness and efficiency depend upon the focus of the question that guides a systematic literature review (Cronin et al., 2008; Bettany-Saltikov, 2010). This research project started out with the role of perceived similarity. An initial search in the sixty-one social psychology journals of Journal Citation Reports of Thomas Reuters comprised over ten thousand articles. When
the similarity-attraction hypothesis was identified as the core topic, a manageable number of articles remained.

As sales and marketing academics are not experts in (all) the disciplines they cover, defining the question upon which that the systematic literature review focuses is pivotal, and should be addressed as an iterative process. Application of the Goldilocks’ principle (Saunders et al., 2015) is key. Given that there is a trade-off between rigour and relevance (Grant and Booth, 2009), it is advisable to address the key construct, process, or relationship of the study by means of a systematic literature review. This review should cover both literature in the researcher’s discipline of origin, as well as in marketing research; all embedded in a narrative literature review providing a broad perspective on the topic (Bettany-Saltikov, 2010).

6.4 Limitations

The choices in research design, measurement instrument, and sample collection method have their effect on the validity, reliability and generalisability of the outcomes of this study.

Research design

In order to better understand the role of the similarity-attraction effect, it is necessary to capture similarity perceptions, assessment of willingness, capability, and the resulting attitudes and intentions of buyers. This begs the question of the possibility of success when utilising a cross-section survey design. In other words: does post hoc measurement, by means of a questionnaire, capture such complex constructs accurately?

Although this is a fair question, two arguments that support this research design can be offered. Firstly, measuring perceptions, attitudes, and intentions is the domain of social phycology. In this domain, the cross-sectional survey has a long standing history (Albright et al., 1988; Kenny et al., 2006; Montoya and Horton, 2013) and is the most used research design to date. Secondly, one should ask:
what is the alternative? As the influence of perceived similarity is a subconscious process, interviewing is not an option (Dekker and Wright, 2012), and (quasi-) experiments only capture actual behaviour, or would be based on actual similarity instead of perceived similarity (Montoya et al., 2008). A promising research design is neuroscience (Zaki and Ochsner, 2011). In the near future, it will be possible to design and execute real-world neuroscience studies (Kasai et al., 2015). Until this is a reality, a cross-sectional survey design is a reasonable and feasible alternative.

Another reason to criticize the post hoc cross-sectional design of this study, is the direction of the causal relationship between similarity and attraction. Do buyers trust salespeople due to similarity perceptions (Evans, 1963; Montoya and Horton, 2014), or do they perceive them as similar, as a result of trust in salespeople (Newcomb, 1978; Morry et al., 2013)? To control for this issue, buyers were asked to indicate whether they already had decided in favour or against future interaction, or had not decided yet. This lead to the conclusion that the attraction similarity effect was present in the similarity-likeability relationship.

For benevolence, power, expertise, and salesperson trust, no significant differences are present between dyads that resulted in future interaction and those in which the buyer rejected future interaction or had not decided yet. Support for the attraction-similarity hypothesis is present in the relationship between perceived salesperson integrity and perceived similarity, However, perceived salesperson integrity is not identified as a significant factor in the similarity-attraction effect in this study. Furthermore, willingness behaviour perceptions show a reverse effect, in that perceived willingness behaviour is significantly lower in dyads that resulted in future interaction.

Support for the attraction-similarity effect hypothesis is present in the relationship between salesperson likeability and perceived similarity. Considering that attraction-similarity effect research in social psychology is in the context of friendship (Morry, 2007), it is inferred that the attraction-similarity effect is present
in social attraction, but not in task attraction. The attraction-similarity effect, as well as the issues that were found regarding the relationship between salesperson trust and organisational trust, can also be attributed to possible simultaneity issues (Antonakis et al., 2010). This emphasises the limitation of uncontrolled endogeneity present in this study (Hamilton and Nickerson, 2003; Bascle, 2008; Albers et al., 2015).

**Measurement instrument**

The question arises: does this conceptual framework and the scales involved validly and reliably measure the similarity-attraction effect in initial business-to-business sales encounters? It is posited that, in order to validly research the role of the similarity-attraction effect, a new conceptual framework was a necessity. Extant marketing literature regarding initial sales encounters has not yet fully adopted the differentiation between social attraction and task attraction (Leigh and Summers, 2002; Michinov and Monteil, 2002), and the three underlying person, mind, and competence perception processes (Zaki and Ochsner, 2011; Malone and Fiske, 2013). This is the case even considering readily available explanations in social psychology and neuroscience (Fiske et al., 2002; Zaki and Ochsner, 2011; Montoya and Horton, 2014) and the correlation between existing literature and the proposed salesperson attraction model.

Although this conceptual framework is new and not validated, this study uses validated scales for the core constructs of the conceptual framework (Doney and Cannon, 1997; Mayer and Davis, 1999; Briggs and Grisaffe, 2010), as well as the moderating variables of risk assessment (Ellis et al., 2010), and buyer and seller dependency (Lusch and Brown, 1996). New scales were created for market and financial risk (Kraljic, 1983), and the product-service continuum (Oliva and Kallenberg, 2003). As these three scales are all unidimensional, there is no statistical evidence that supports the claim that these scales accurately and measure what they intend to measure. Therefore, these scales are identified as a possible issue. However, during the conception of these scales, the pilot study,
and data collection and analysis, there were no incidents that hinted at issues in validity or reliability.

When possible, the items of the scales are verbatim translations of the original scales. However, adaptations were made to fit the context of this study. In the similarity scale (Doney and Cannon, 1997), the organisational perspective was changed into an individual perspective of the buyer. The scales of Mayer and Davis (1999) referred to ‘top management’. This was replaced by ‘salesperson’. In the anticipated added value scale (Briggs and Grisaffe, 2010), two adaptations were needed. Firstly, the term ‘service provider’ was excluded, as this study is not limited to services. Secondly, the original items had an evaluative nature, while, in this study, a predictive nature was required. With the exception of the two trust scales, there were no indications in the conception phase, pilot study, or data collection and analysis, that the adaptation and translation hampered the usability of these scales in the context of this study. Additionally, the measurement model analyses (Hair et al., 2016) proved sound.

Another issue is the reconceptualisation of benevolence and integrity into benevolence, integrity, and willingness behaviour, as a result of the outcomes of the principal components analysis. It is acknowledged that this decision is disputable. However, since the introduction of willingness behaviour is support by both principal component analyses; the significant role it takes in the analyses of the full dataset and cost-oriented dyads; and the support in current literature, it cannot be ignored. Another argument for the incorporation of willingness behaviour as a construct in the conceptual model is the exploratory nature of this research project.

The questions regarding the industry of the buyer and the seller contain the most absent values. Furthermore, respondents actively contacted the researcher to indicate that this was a relevant question, but that the set of possible answers was too elaborate. Therefore, an analysis based on industries is not provided.
Sample

The sample of this study consists of 162 professional buyers in the Netherlands, collected though three different methods. Sample size, missing data treatment, respondent profile, cultural context, and data collection methods are all identified as limitations of this study.

The sample size of 162 is not considered large. This limits the reliability of the research herein. Specifically, weak relationships which are now deemed insignificant, could have been identified as significant, when a larger sample size was obtained. However, the statistical power (Cohen, 1992) of all constructs with a significant amount of variance explained (Hair et al., 2016) is sufficient. Furthermore, it is stated that professional buyers can be considered a hidden population (Heckathorn, 2002). As professional buyers are constantly approached by others, they are sceptical and reluctant. Many buyers indicated that they would not cooperate, as they feared that the information provided would be used for other purposes.

Missingness of data was mainly caused by respondents that dropped out before the end of the test, and the complexity of the questions regarding the industry of the buyer and the seller. Only the information from two respondents that dropped out contained missing data regarding a single construct of the core conceptual framework (anticipated future interaction). Pairwise deletion was used during analysis. Analysis of the industry variables was not undertaken. However, a substantial amount of missing values was present in all controlling variables. Casewise deletion was used due to the large extent of missing data. The number of cases used was reported. A limitation of this research is that no tests (Schafer and Graham, 2002) were executed to ensure that this data was missing (completely) at random.

A clear shortcoming of this study is that the sample only contains professional buyers. Therefore, the outcomes of this study provide insight in the role of the similarity-attraction effect in initial sales encounters of salespeople in this specific
group. Given that the members of this group are most aware of their role, and the role of salespeople (Blocker, Houston, et al., 2012; Dekker and Wright, 2012), other outcomes are naturally anticipated when members of other decision making units are incorporated into the sample.

Another undisputed limitation is the cultural setting of this research. No claims are made regarding the generalisability of the outcomes of this research beyond the context of the Dutch culture, as past studies have shown that culture can gravely impact assessments of people (Albright et al., 1997).

A last issue identified is aggregating the results of three data collection methods. Research on mixed model surveys shows that, when different data collection methods are used, biases are caused, but responses overall are increased (Kaplowitz et al., 2004; Dillman et al., 2011). Biases are reported when the way respondents complete the survey differs (i.e. face-to-face, telephone, and web). In this study, respondents of all three samples completed an identical web-based survey. A remaining possible issue in this study is that respondents filled in the survey multiple times. Given the reluctance of professional buyers to participate, this is considered highly unlikely.
Chapter 7

Conclusion:

The substantive aim of this study is to further the understanding the role of the similarity-attraction effect in initial business-to-business sales encounters. Although, sales research in this area is scant and inconclusive, many sales practitioners hold that the use of similarity enhancing techniques are effective during initial encounters. A secondary aim is identifying the usability of systematic literature reviews in marketing literature. Seven objectives were formulated to fulfil these aims:

1. Provide an overview of the social psychology literature on the similarity-attraction effect, using a systematic literature review approach;
2. Deliver an overview of the marketing literature on the similarity-attraction effect, using a systematic literature review approach;
3. Contrast social psychology literature and marketing literature on positions, schools of thought, and recent development on the subject of the similarity-attraction effect;
4. Provide an overview of the academic literature concerning the constructs and causal relationships that drive future interaction in initial business-to-business sales encounters, using a narrative literature review approach;
5. Propose a conceptual model that establishes the way these constructs and their relations drive future interaction; and specify the indirect or direct impact of similarity on future interaction;
6. Empirically test the conceptual model in the Netherlands, and analyse the data using variance-based structural equation modeling;
7. Discuss the impact of the outcome of the empirical research on the justification of the use of actionable tools that aim to enhance similarity perceptions of buyers.

Addressing the first five objectives resulted in a conceptual framework, which was empirically tested by means of hypotheses, as formulated in chapter 3. After
presenting the results in chapter 5, the contribution of this study to our understanding of the role of the similarity-attraction effect in initial business-to-business sales encounters, and the use of systematic literature reviews and narrative reviews in marketing research were addressed. Limitations were also discussed in chapter 6.

In this chapter, the conclusion of this research project is presented, offering a terse summary of the outcomes. Finally, contributions to practice and suggestions for future research are addressed.

7.1 The similarity-attraction effect in initial B2B sales encounters

The similarity-attraction effect in initial business-to-business sales encounters is a complex process. Overall, similarity perceptions of salespeople by buyers seem to enhance buyers’ trust in salespeople. This effect is partly mediated by the assessment of buyers that salespeople will act in their best interest (willingness behaviour). Perceived benevolence of salespeople enhances anticipated added value. However, a segmented analysis shows a different outcome.

In cost-oriented dyads, the similarity-attraction effect is present, but limited and restricted to task attraction. The influence of perceived similarity is nearly fully mediated by willingness behaviour, especially in dyads that involve selling services. Similarity perceptions and salesperson likeability are related, but this is a reverse (attraction-similarity effect) or at least a recursive relationship. High perceived similarity results in higher perceived benevolence of salespeople, which, in turn, leads to a marginal increase of anticipated added value. In more profit-oriented dyads, perceived similarity by buyers does not drive attraction.

This study shows that the impact of the similarity-attraction effect is limited, and even nonsignificant, in the more profit-oriented segment. This could be deemed a negative result and, therefore, listed as less informative (Hubbard and Armstrong, 1992). However, the substantive aim of this thesis is to contribute to the notion of evidence-based sales, by testing the underlying rationale of a set of actionable tools.
It is posited that, when dealing with professional buyers in the Netherlands, there is insufficient ground for training and use of actionable tools like mimicking, mirroring, NLP, or similarity-based customer segmentation, as these rely on the similarity-attraction effect. This stresses the importance of questioning common sales practices and beliefs, and calls for a joint effort of both sales practitioners and academics (Fogel et al., 2012) to invest time and resources in developing a more evidence-based approach (Rousseau, 2012) towards sales.

### 7.2 Contribution to practice

The rationale of this study is to identify whether the influence of the similarity-attraction effect justifies training and the use of similarity-enhancing techniques and similarity-based customer segmentation in an effort to increase the chances of “getting a foot in the door” during an initial business-to-business encounter.

The outcomes of this research indicate that this is not the case. In more profit-oriented dyads, which cover half of the initial business-to-business sales encounters with Dutch professional buyers, the similarity-attraction effect does not influence the chances of a next sales call in any way. In the cost-oriented dyads, the similarity-attraction effect is present during sales encounters, but the influence on future interaction is limited. Under specific circumstances, the similarity-attraction effect is larger. If salespeople are dealing with professional buyers that are cost-oriented, and are selling a service that is perceived difficult to source by these buyers, the similarity-attraction effect has the largest influence. Still, there are more effective ways to influence anticipated future interaction than enhancing similarity perceptions.

In all initial sales encounters, the expected added value of cooperation is the main reason for professional buyers to initiate further contact. In more profit-oriented dyads, the assessment of the level of expertise of the salesperson has a large influence on added value perceptions. In cost-oriented dyads, salespeople who come across as benevolent enhance the expected added value of the products or services they sell. If a buyer trusts a salesperson, this also increases chances
of future interaction. Anticipated willingness behaviour increases trust levels in cost-oriented dyads. Also, when salespeople come across as likeable, this increases trust. However, likeability is not determined by similarity perceptions. Assumptions of buyers regarding integrity of salespeople, or their ability to get things done in their own organisation, are not relevant during initial encounters.

So, what should salespeople do during initial business-to-business sales encounters with Dutch professional buyers? The priority of salespeople is to get across the added value that can be offered to that specific customer. The second most important goal in more profit-oriented dyads, is to signal expertise. In cost-oriented dyads, it is more important to convince the buyers that you will not be doing anything that harms the interests of the buyer (willingness behaviour). In all dyads, it helps to be assessed as likeable and benevolent.

Identifying whether a buyer has a cost-oriented, or follows a more profit-oriented approach, would also be helpful. If this orientation is correctly identified, salespeople can adjust their approach on how to present their added value, and can either focus more on signalling expertise or willingness behaviour. However, this study shows that such orientation is not based upon risk perceptions; interdependency; whether it concerns a product or a service; gender; or the experience of the buyers. Therefore, it is advisable to assume that the orientation can be either, unless one is certain that the buyer is cost-oriented or more-profit oriented.

An important finding from a marketing perspective is that building the aspired positioning and brand image are only beneficial if these are aligned with trust in the salesperson and a positive assessment of the expected added value during the initial encounter. When Dutch professional buyers perceive a gap, this will reduce the chances of future interaction. This means that a myopic concern for brand image, or positioning, can be detrimental.
7.3 Future research

This study is exploratory in nature, as it proposes a new framework to explain the role of the similarity-attraction effect in a business-to-business context. In order to investigate the generalisability of this conceptual framework, two possibilities for future research are identified. The robustness of this framework could be tested by using it in different cultural settings (Albright et al., 1997; Hofstede, 2011), and by expanding the sample frame beyond professional buyers (Ghingold and Wilson, 1998; Rapp et al., 2014).

Willingness behaviour, and its mediating role in the similarity-attraction effect, hints that predicted salespeople behaviour (Ahearne et al., 2007) plays a more important role than person, mind, or competence assessment of salespeople by buyers. Therefore, it is necessary to replace or extend the similarity-attraction model in this regard.

Another question that resulted from this research is: what causes Dutch professional buyers to be either cost-oriented or profit-oriented? This study shows that circumstances, as identified in theory under review, do not explain whether buyers are more cost or profit driven. Possible other explanations that were not covered by this study include business psychographics (Barry and Weinstein, 2009), strategic typologies (Miles et al., 1978), personal traits (Nicholson et al., 2005), and type of buying task (Lemke et al., 2011).

The extent of potential impact of endogeneity due to, for instance, omitted variables, errors-in-variables, or simultaneity, needs to be assessed in order to ensure the correctness of the inferred causal relations in this study (Antonakis et al., 2010; McIntosh et al., 2014). Because of the nature of the phenomena under research, a true experiment design is considered an unlikely research strategy (Albers et al., 2015). It is suggested to identify suitable exogenous instrumental variables (Bascle, 2008; Albers et al., 2015), to control for endogeneity.

Although the adapted Mayer and Davis scale (1999) for measuring salesperson and organisational trust is considered promising, the first two items of the scale
are not satisfactory. Further development and improvement of these two trust scales, that are free of trustworthiness beliefs or assessments, is essential. A result of this new approach of measuring salesperson trust is that all of the antecedents of that trust, which have been identified in literature, account for a limited portion of the variance of salesperson trust in initial business-to-business sales encounters. Together with anticipated added value, salesperson trust is an important driver of future interaction. More investigation into what constitutes salesperson trust is required. The new construct of willingness behaviour signals that anticipated behaviour (Ahearne et al., 2007) is a promising avenue to determine the antecedents of salesperson trust in initial sales encounters.

When real-world neuroscience has developed to a point that the assessment of people by others can be measured in situ (Kasai et al., 2015), it would be advisable to revisit this study. With this future approach, the hypothesis that the influence of perceived similarity on interpersonal assessments varies due to either assessing by means of automated heuristics or high-effort processing, could be properly addressed (Fiske, 1998; Zaki and Ochsner, 2011; Doré et al., 2014).

Furthermore, this study does not address similarity perceptions by salespeople. These might also influence the outcomes of initial sales encounters (LaTour et al., 1989). This perspective renders new possibilities for research (Mullins et al., 2014; Hall et al., 2015).
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Appendix I: Survey

Geachte heer, mevrouw,

Hartelijk dank voor het meewerken aan dit onderzoek. Het invullen zal ongeveer 10 minuten van uw tijd vragen.

Dit onderzoek is goedgekeurd door de ethische commissie van de University of Bradford op 12 maart 2013 en valt onder de gedragscode praktijkgericht onderzoek voor het HBO. De gegevens worden anoniem gerapporteerd. U kunt te allen tijde uw medewerking opzeggen door een bericht te sturen naar j.j.dekker@hz.nl.

Het onderzoek richt zich op de meest invloedrijke factoren tijdens een eerste ontmoeting met een verkoper van een nieuwe leverancier. Het verzoek is om een recente eerste ontmoeting met een verkoper van een organisatie waar u daarvoor nog geen zaken mee deed voor de geest te halen en deze ontmoeting in gedachte te houden terwijl u de vragen beantwoordt. Dit onderzoek richt op zich op de Nederlandse bedrijfscultuur. Om die reden wordt gevraagd om een Nederlandse verkoper/organisatie in gedachte te houden.

Er worden vragen gesteld over de verkoper, de organisatie en uw inschatting over de mogelijke toegevoegde waarde en toekomstige relaties met de betreffende leverancier.

Bij iedere 100 reacties wordt er een bol.com bon van 50 euro verloot onder de respondenten.

Als u de recente eerste ontmoeting met een Nederlandse verkoper van een organisatie waar u voor deze ontmoeting nog geen zaken mee deed in gedachte hebt, kunt u aan de vragenlijst beginnen.

Nogmaals hartelijk dank voor uw medewerking,

Hans Dekker
HZ University of Applied Sciences
Onderzoeksdoelgroep

1) Welke van de onderstaande beschrijvingen past het beste bij uw huidige werkzaamheden?*

☐ Fulltime inkoper (procurement, sourcing, supply chain management, etc.)

☐ Functie waarbij inkopen de belangrijkste taak is

☐ Manager inkoopafdeling en zelf direct contact met leveranciers

☐ Anders

De verkoper I

Geef aan wat uw indruk is over de expertise en de slagkracht in de eigen organisatie van de verkoper en de omgang met deze verkoper.

Als u geen oordeel kunt geven, vul u neutraal in.

2) Hoe beoordeelt u de expertise van de verkoper?

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<td>De verkoper is goed in staat om zijn/haar werk te doen</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>De verkoper is succesvol in de dingen die hij/zij doet</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>De verkoper heeft veel relevante kennis</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>Ik heb veel vertrouwen in de vaardigheden van de verkoper</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>De verkoper heeft de juiste kwalificaties</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
</tbody>
</table>
3) Hoe beoordeelt u de slagkracht van de verkoper?

<table>
<thead>
<tr>
<th></th>
<th>zeer eenens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>De verkoper krijgt zijn/haar zin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>binnen de eigen organisatie</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>De verkoper is een belangrijke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>verkoper binnen de eigen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>organisatie</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>De verkoper heeft macht in zijn/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>haar eigen organisatie</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

4) Hoe prettig is de verkoper in de omgang?

<table>
<thead>
<tr>
<th></th>
<th>zeer eenens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>De verkoper is vriendelijk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>De verkoper is aardig tegen ons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>De verkoper is een aangenaam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>persoon</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>
De verkoper II

Geef aan wat u indruk is over de overeenkomsten met u en hoe welwillend en integer deze verkoper is.

Als u geen oordeel kunt geven, vult u neutraal in.

5) Vertoont de verkoper overeenkomsten met u?

<table>
<thead>
<tr>
<th></th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>De verkoper heeft dezelfde interesses als ik</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>De verkoper heeft dezelfde waarden als ik</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>De verkoper lijkt erg op mij</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

6) Hoe welwillend is de verkoper?

<table>
<thead>
<tr>
<th></th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deze verkoper geeft om hoe het met ons gaat</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Onze behoeften en wensen zijn erg belangrijk voor deze verkoper</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Deze verkoper zou ons niet met opzet kwaad doen</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Deze verkoper kijkt echt wat belangrijk is voor ons</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Deze verkoper zal heel veel moeite doen om ons te helpen</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>
7) Hoe integer is de verkoper?

<table>
<thead>
<tr>
<th></th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>De verkoper heeft een sterk rechtvaardigheidsgevoel</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>Ik twijfel er niet aan dat deze verkoper woord houdt</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>Deze verkoper probeert eerlijk te zijn naar anderen</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>Het handelen en gedrag van deze verkoper is consistent</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>De waarden van deze verkoper bevallen mij</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>De juiste principes leiden het gedrag van deze verkoper</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
</tbody>
</table>
Vertrouwen

Geef aan in hoeverre u deze verkoper en zijn/haar organisatie vertrouwt. Geef ook aan in hoeverre u er vertrouwen in hebt dat (eventuele) samenwerking toegevoegde waarde oplevert.

Mocht u geen oordeel kunnen geven, dan vult u neutraal in.

8) In hoeverre durft u de verkoper te vertrouwen?

<table>
<thead>
<tr>
<th>Statement</th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ik vind het niet erg als deze verkoper invloed heeft op zaken die belangrijk voor ons zijn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ik ben bereid om de controle tijdens samenwerking met hem/haar uit handen te geven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ik hoef deze verkoper niet constant in de gaten te houden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ik durf een taak of probleem uit handen te geven aan deze verkoper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9) In hoeverre durft u de organisatie van de verkoper te vertrouwen?

<table>
<thead>
<tr>
<th>Statement</th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ik vind het niet erg als deze organisatie invloed heeft op zaken die belangrijk voor ons zijn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ik ben bereid om de controle tijdens samenwerking met deze organisatie uit handen te geven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ik hoef deze organisatie niet constant in de gaten te houden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ik durf een taak of probleem uit handen te geven aan deze organisatie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10) In hoeverre verwacht u dat (eventuele) samenwerking voldoende toegevoegde waarde oplevert?

<table>
<thead>
<tr>
<th></th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samenwerking zal leiden tot meer winst</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Samenwerking zal leiden tot minder kosten</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Bij samenwerking zullen de baten voor ons groter zijn dan de lasten</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

Toekomstige samenwerking

Geef aan in hoeverre u het waarschijnlijk acht dat er met deze organisatie samengewerkt gaat worden.

Mocht u geen oordeel kunnen geven, dan vult u neutraal in.

Geef ook aan wat de huidige status van de beslissing omtrent de samenwerking is.

11) Hoe waarschijnlijk is het dat u gaat samenwerken met deze organisatie?

<table>
<thead>
<tr>
<th></th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Het is waarschijnlijk dat we gedurende de komende drie jaar zullen samenwerken</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Het is waarschijnlijk dat we gedurende het komende jaar zullen samenwerken</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>
12) Wat is de huidige status van de beslissing over samenwerking?*

☐ Er is nog geen besluit genomen

☐ Er is besloten om niet samen te werken

☐ Er is besloten om wel samen te werken

---

Algemene gegevens

13) Wat is uw leeftijd?

[ ]

14) Wat is uw geslacht?

☐ Vrouw

☐ Man

15) Hoeveel jaar bent u als inkoper werkzaam?

[ ]
16) In welke branche bent u werkzaam?

- Landbouw, bosbouw en visserij
- Winning van delfstoffen
- Industrie
- Productie en distributie van en handel in elektriciteit, aardgas, stoom en gekoelde lucht
- Winning en distributie van water; afval- en afvalwaterbeheer en sanering
- Bouwnijverheid
- Groot- en detailhandel; reparatie van auto's
- Vervoer en opslag
- Logies-, maaltijd- en drankverstrekking
- Informatie en communicatie
- Financiële instellingen
- Verhuur van en handel in onroerend goed
- Advisering, onderzoek en overige specialistische zakelijke dienstverlening
- Verhuur van roerende goederen en overige zakelijke dienstverlening
- Openbaar bestuur, overheidsdiensten en verplichte sociale verzekeringen
- Onderwijs
- Gezondheids- en welzijnszorg
- Cultuur, sport en recreatie
- Overige dienstverlening
- Huishoudens als werkgever
- Extraterritoriale organisaties en lichamen
17) In welke branche is de leverancier actief?

☐ Landbouw, bosbouw en visserij
☐ Winning van delfstoffen
☐ Industrie
☐ Productie en distributie van en handel in elektriciteit, aardgas, stoom en gekoelde lucht
☐ Winning en distributie van water; afval- en afvalwaterbeheer en sanering
☐ Bouwnijverheid
☐ Groot- en detailhandel; reparatie van auto's
☐ Vervoer en opslag
☐ Logies-, maaltijd- en drankverspreiding
☐ Informatie en communicatie
☐ Financiële instellingen
☐ Verhuur van en handel in onroerend goed
☐ Advisering, onderzoek en overige specialistische zakelijke dienstverlening
☐ Verhuur van roerende goederen en overige zakelijke dienstverlening
☐ Openbaar bestuur, overheidsdiensten en verplichte sociale verzekeringen
☐ Onderwijs
☐ Gezondheids- en welzijnszorg
☐ Cultuur, sport en recreatie
☐ Overige dienstverlening
☐ Huishoudens als werkgever
☐ Extraterritoriale organisaties en lichamen
Positie van de leverancier

18) Hoe hoog schat u het inkooprisico (de kans dat u deze producten en/of diensten niet in voldoende mate in kunt kopen) in? (Kraljic Matrix)*

1 ________________________ [ ] ______________________________ 5

19) Hoe hoog schat u de financiële gevolgen van de producten en/of diensten in (in welke mate dragen de producten en/of diensten bij aan de winstgevendheid van de organisatie; Kraljic Matrix).*

1 ________________________ [ ] ______________________________ 5

20) Hoe afhankelijk bent u van de andere organisatie?

<table>
<thead>
<tr>
<th>Wij zullen afhankelijk zijn van deze organisatie</th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Het zal moeilijk voor ons zijn om deze organisatie te vervangen</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>Het zal duur zijn om deze organisatie kwijt te raken</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
</tbody>
</table>

21) Hoe afhankelijk is de andere organisatie van uw organisatie?

<table>
<thead>
<tr>
<th>De organisatie zal afhankelijk van ons zijn</th>
<th>zeer oneens</th>
<th>oneens</th>
<th>neutraal</th>
<th>eens</th>
<th>zeer eens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Het zal moeilijk voor hen zijn om ons te vervangen</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
<tr>
<td>Het zal duur voor hen zijn om ons kwijt te raken</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
<td>()</td>
</tr>
</tbody>
</table>
22) Samenwerking met deze organisatie brengt weinig risico met zich mee*  
1 ________________________ [ ] ______________________________ 5

23) Of een leverancier meer een product of dienst levert, is vaak niet zwart/wit. Om die reden vragen wij u het aanbod van de betreffende leverancier een score te geven op deze lijn.*  
1 ________________________ [ ] ______________________________ 5

Adres gegevens
Als u kan wilt maken op de bol.com tegoedbon en de uitkomsten (verwachting herfst 2015) van het onderzoek wilt ontvangen, vul dan hier uw gegevens in.

24) Naam


25) Organisatie


26) E-mail adres


Hartelijk dank voor uw medewerking
Dit is het einde van deze vragenlijst. U kunt deze pagina nu afsluiten.

Mocht u nog vragen of opmerkingen hebben naar aanleiding van dit onderzoek, dan kunt u contact met mij opnemen: j.j.dekker@hz.nl

Hartelijk dank voor uw medewerking!
Hans Dekker
HZ University of Applied Sciences
Appendix II: Trust scales comparison

Table: 4 and 2 item salesperson and organisational trust model comparison

<table>
<thead>
<tr>
<th></th>
<th>4 item scales</th>
<th></th>
<th></th>
<th>2 item scales</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Path Coefficient</td>
<td>P Values</td>
<td></td>
<td>Path Coefficient</td>
<td>P Values</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; SB</td>
<td>0.207</td>
<td>0.278</td>
<td></td>
<td>0.206</td>
<td>0.289</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; SI</td>
<td>0.347</td>
<td>0.095</td>
<td></td>
<td>0.346</td>
<td>0.091</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; WB</td>
<td>0.278</td>
<td>0.096</td>
<td></td>
<td>0.278</td>
<td>0.097</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; SP</td>
<td>0.149</td>
<td>0.503</td>
<td></td>
<td>0.149</td>
<td>0.489</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; SE</td>
<td>0.200</td>
<td>0.352</td>
<td></td>
<td>0.200</td>
<td>0.348</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; SL</td>
<td>-0.060</td>
<td>0.803</td>
<td></td>
<td>-0.060</td>
<td>0.794</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; ST</td>
<td>0.256</td>
<td>0.197</td>
<td></td>
<td>0.265</td>
<td>0.136</td>
<td></td>
</tr>
<tr>
<td>SB -&gt; ST</td>
<td>-0.107</td>
<td>0.448</td>
<td></td>
<td>-0.114</td>
<td>0.416</td>
<td></td>
</tr>
<tr>
<td>SI -&gt; ST</td>
<td>-0.042</td>
<td>0.871</td>
<td></td>
<td>-0.068</td>
<td>0.747</td>
<td></td>
</tr>
<tr>
<td>WB -&gt; ST</td>
<td>0.135</td>
<td>0.492</td>
<td></td>
<td>0.151</td>
<td>0.374</td>
<td></td>
</tr>
<tr>
<td>SP -&gt; ST</td>
<td>0.190</td>
<td>0.164</td>
<td></td>
<td>0.189</td>
<td>0.169</td>
<td></td>
</tr>
<tr>
<td>SE -&gt; ST</td>
<td>0.100</td>
<td>0.582</td>
<td></td>
<td>0.104</td>
<td>0.509</td>
<td></td>
</tr>
<tr>
<td>SL -&gt; ST</td>
<td>0.281</td>
<td>0.041</td>
<td></td>
<td>0.296</td>
<td>0.023</td>
<td></td>
</tr>
<tr>
<td>SS -&gt; ST</td>
<td>0.256</td>
<td>0.197</td>
<td></td>
<td>0.265</td>
<td>0.136</td>
<td></td>
</tr>
<tr>
<td>SB -&gt; AAV</td>
<td>0.036</td>
<td>0.743</td>
<td></td>
<td>0.028</td>
<td>0.805</td>
<td></td>
</tr>
<tr>
<td>SI -&gt; AAV</td>
<td>0.005</td>
<td>0.966</td>
<td></td>
<td>0.008</td>
<td>0.948</td>
<td></td>
</tr>
<tr>
<td>WB -&gt; AAV</td>
<td>0.072</td>
<td>0.571</td>
<td></td>
<td>0.066</td>
<td>0.611</td>
<td></td>
</tr>
<tr>
<td>SP -&gt; AAV</td>
<td>-0.033</td>
<td>0.782</td>
<td></td>
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* significantly different outcome
Appendix III: Interaction effect graphs

Figure 1: Interaction effect of financial risk on the similarity-benevolence relationship in the full dataset.

Figure 2: Interaction effect of market risk on the similarity-benevolence relationship in the full dataset.

Figure 3: Interaction effect of financial risk on the similarity-benevolence relationship in segment A.

Figure 4: Interaction effect of market risk on the similarity-benevolence relationship in segment A.