

Master Thesis Business Administration  
University of Twente  
School of Management and Governance

# **The effect of different types of trust and commitment on supplier satisfaction**

Submitted by:	I.E.H (Ilse) van der Veen
Student number:	s1753134
1 <sup>st</sup> supervisor:	Prof. Dr. habil. H. Schiele
2 <sup>nd</sup> supervisor:	Dr. Ir. P. Hoffmann
Number of pages/ words:	54/23534
Bibliography programme used:	EndNote
Publication date and –place:	19-06-2018, Dieren

## **Acknowledgements**

This master thesis describes the effect of different types of trust and commitment on supplier satisfaction. This thesis is written with the goal of finalising the track Purchasing and Supply Management for the Master of Business Administration at the University of Twente.

A number of people have helped me with writing this thesis. First, I would like to thank Vincent Masterbroek for his contribution to this thesis. The similar research objectives gave us the opportunity to develop a questionnaire and share the data derived from the field research, which I have incorporated into this study. Second, I would like to thank my supervisors prof. Dr. Holger Schiele and Frederik Vos for reviewing this thesis. In particular a big thank you to Frederik Vos for his time, feedback and practical support throughout the entire process. Last, I would like to thank my friends and family who have always supported me throughout my study.

19-06-2018, Dieren.

Ilse van der Veen

## **Abstract**

The purchasing department of an organisation is more and more seen as a strategic function, capable of creating a competitive advantage. A necessary condition for creating a competitive advantage is to satisfy the suppliers. The general trust and commitment and their effect on a dependent variable have been researched before, but the focus of this research is on identifying the influence of the different types of trust and commitment on supplier satisfaction. The types of trust and commitment that are chosen are trusting belief, trusting intention, affective commitment and instrumental commitment. This thesis revolves around the question: What are the effects of the different types of trust and commitment on supplier satisfaction? Also, the possibility of a complementary or substitute effect of the different types is analysed. The data is collected amongst suppliers of different organisations and analysed with PLS path modelling and SPSS. The results show that trusting belief is an important influence on supplier satisfaction and that the two types of commitment have a complementary effect on supplier satisfaction. This study ultimately provides suggestions for buying firms to increase the likelihood of satisfying the suppliers and having beneficial relationships.

**Keywords:** Inter- organisational relationships; supplier satisfaction; trusting belief; trusting intention; affective commitment; instrumental commitment.

## Table of content

1	Examining the effect of different types of trust and commitment on supplier satisfaction .....	1
1.1	Introducing the situation and complication of supplier satisfaction .....	1
2	Trust and commitment are the underlying elements in relationship dynamics influencing supplier satisfaction .....	4
2.1	Supplier satisfaction, a necessary condition in inter-organisational relationships .....	4
2.1.1	Reverse-marketing: The changing perspective from customer satisfaction to supplier satisfaction .....	5
2.1.2	Supplier satisfaction is a condition that is achieved if the quality of outcomes of a buyer-supplier relationship meets or exceeds the supplier's expectations.....	8
2.1.3	The antecedents of supplier satisfaction: Trust and commitment are important influencers .....	10
2.2	The importance of trust and challenges with the definition of trust itself.....	11
2.2.1	Trust can be seen as the cornerstone of strategic partnerships .....	12
2.2.2	There are many characteristics that influence trust .....	12
2.2.3	Trusting intention and trusting beliefs are among the various types of trust.....	13
2.2.4	Trusting intention and trusting belief are the chosen framework .....	18
2.3	Commitment is seen as a critical success factor that influences inter-organisational relationships.....	19
2.3.1	Organisational commitment is the desire to stay loyal to the organisation and identify with the organisational purposes.....	20
2.3.2	Problematic areas in the most well- know conceptualisation of commitment .....	21
2.3.3	Affective and instrumental commitment are the chosen framework .....	25
3	Hypotheses.....	27
3.1	Indication of the effects of trusting belief and trusting intention on supplier satisfaction.....	28
3.2	Indication of the effects of affective and instrumental commitment on supplier satisfaction.....	28

3.3	Indication of the substitution or complementary theory for trust and commitment.....	32
4	Types of descriptive and explorative research methods to gain new insights: Steps of the research .....	36
4.1	Literature exploration from academic journals .....	36
4.2	Survey design and other methods used .....	37
4.3	Data collection method and respondent specification.....	38
4.4	Statistical data analysis method.....	39
4.5	Assessment of outliers, validity and reliability .....	40
5	Results show that trusting belief and commitment have a positive significant effect on supplier satisfaction .....	43
6	Discussion and implications of this research.....	48
6.1	Trusting belief is the most important variable, trusting intention seems to have no effect .....	48
6.2	Implications: Focus on the components of trusting belief and combine the commitment types for a complementary effect.....	51
6.3	Limitations and future research: Better measurements for trusting intention and trusting belief.....	52
7	References.....	55
8	Appendices .....	63
	<i>Appendix A - Used measures .....</i>	63
	<i>Appendix B - Cook's distance and Mahalanobis.....</i>	65
	<i>Appendix C- Rotated component matrix and HTMT .....</i>	67
	<i>Appendix D – PLS path modelling .....</i>	68
	<i>Appendix E- Results of regression and hierarchical analysis</i>	

## List of tables

Table 1: Overview of the studies about supplier satisfaction and their findings. ....	8
Table 2: Antecedents of trust. ....	13
Table 3: Types of trust. ....	14
Table 4: Types of commitment. ....	22
Table 5: Characteristics of the sample ....	39
Table 6: Reliability and validity. ....	41
Table 7: Results of the hierarchical regression. ....	45
Table 8: Discrepancy analysis of the variables commitment and trusting belief. ....	46
Table 9: Polynomial analysis of slopes and curvatures for effects of commitment and trusting belief. ....	46
Table 10: Sub-components of trusting intention and trusting belief. ....	49
Table 11: Used measures and questionnaire questions. ....	64
Table 12: Calculation of Cook's distance in SPSS. ....	65
Table 13: Rotated component matrix for factor analysis. ....	67
Table 14: Heterotrait- Monotrait Ratio (HTMT). ....	67
Table 15: Model summary of regression. ....	<b>Fout! Bladwijzer niet gedefinieerd.</b>
Table 16: Coefficients of the regression analysis. ....	<b>Fout! Bladwijzer niet gedefinieerd.</b>
Table 17: Model summary hierarchical regression. ....	<b>Fout! Bladwijzer niet gedefinieerd.</b>
Table 18: Results of dummy coding for regression. ....	<b>Fout! Bladwijzer niet gedefinieerd.</b>

## List of figures

Figure 1: Four component commitment model. ....	24
Figure 2 : Conceptual model. ....	31
Figure 3: Visual representation of hypothesis 5 and 6. ....	35
Figure 4: Results of PLS path modelling. ....	44
Figure 5: Surface analysis of trusting belief and commitment on supplier satisfaction. ....	47
Figure 6: Outlier detection using Cook's distance. ....	65
Figure 7: Screenshot of Mahalanobis analysis. ....	66
Figure 8: Screenshot of PLS path modelling. ....	68

# **1 Examining the effect of different types of trust and commitment on supplier satisfaction**

## **1.1 Introducing the situation and complication of supplier satisfaction**

This master thesis regards supplier satisfaction in inter-organisational relationships in the purchasing and supply chain field. Because of globalisation, e-commerce and internal organisation changes due to increased outsourcing, the importance of purchasing is growing<sup>1</sup>. Nowadays, organisations spend a lot of their budget on suppliers for goods and services to deliver on their core activities. A study in 2013 among 2000 publically traded companies found that on average 70 percent of a firm's revenue is spent on suppliers<sup>2</sup>. In many organisations the role of purchasing has changed from only an administrative buying function into a strategic function, where instead of getting short-term results the focus shifted to long-term. Organisations realised the advantages of strategically managing their resources to become more competitive<sup>3</sup>, resulting in purchasing becoming a value-added resource for an organisation<sup>4</sup>. In order to gain a competitive advantage it is necessary to satisfy the supplier. An unsatisfied supplier will probably not do her best to help the buying organisation and may produce less quality products<sup>5</sup>. Organisations can struggle with the process of satisfying the supplier, because besides economic factors, relational and social behaviour play an important role as well<sup>6</sup>. In order for an organisation to have a successful relationship with a supplier, commitment and trust are essential. They encourage people to work at preserving the relationship by cooperating with their partners. In addition, it helps people to resist attractive short-term alternatives in favour of the expected long-term benefits of staying with existing partners<sup>7</sup>.

It is clear that trust and commitment impact a relationship<sup>8</sup>, and the relationship in turn has an impact on supplier satisfaction. However, trust and commitment consist of several types, and no research has been done about those different types and their influence on supplier satisfaction. Previous research has shown that the different types of trust and

---

<sup>1</sup> See Spina, Caniato, Luzzini, and Ronchi (2013), p.1202.

<sup>2</sup> See Proxima (2013), p.

<sup>3</sup> See Lelij (2016), p. 1.

<sup>4</sup> See Carr and Pearson (1999), p. 497, 498.

<sup>5</sup> See Hüttinger, Schiele, and Schröer (2014), p.711; F. G. Vos, Schiele, and Hüttinger (2016), p.4618.

<sup>6</sup> See F. G. Vos et al. (2016), p. 4621.

<sup>7</sup> See Morgan and Hunt (1994), p.22.

<sup>8</sup> Cote and Latham (2006), p. 295.

commitment follow different logics<sup>9</sup>, which means they could have different effects. For example, commitment can be based on psychological attachment which involves emotional attachment, but it can also be based on an instrumental consideration which is more calculative in nature and balances rewards and costs of being in the relationship<sup>10</sup>. These different logics and backgrounds can cause different effects on satisfaction. Furthermore, the different types of commitment have a positive effect on *performance*<sup>11</sup>. It could thus be the case that the different types have an effect on *supplier satisfaction* as well. This has not yet been studied before and therefore, this study will look further into the different types of trust and commitment and examine their influence on supplier satisfaction. Next to this, it could be possible that the different types have a complementary or substitute effect on supplier satisfaction, where only one type needs to be present to achieve the same level of supplier satisfaction or where two separate types complement each other. Two opposing views on this theory were found in literature. On one hand, a research by T. Becker et al. (1996) studied the effects of different types of commitment on performance, and states that only one type of commitment can reach the necessary level of performance<sup>12</sup>. On the other hand, a research by Somers (2009) declares that the combined influence of the types of commitment on any outcome variable is greater than when they are separate, indicating a complementary effect<sup>13</sup>.

The goal of this study is to gain a better understanding about trust and commitment, their different types and overall supplier satisfaction. In addition, another goal is to gain more knowledge about the complementary or substitute effect. To achieve these goals existing literature is examined. Moreover, the researcher investigates to what extend the knowledge from the literature is similar to experiences in the research objective. This leads to the following research question:

*What is the effect of the different types of trust and commitment on supplier satisfaction?*

---

<sup>9</sup> See McKnight, Cummings, and Chervany (1998), p.2; Meyer and Allen (1991), p.62; Lin and Wang (2006), p.277; Cohen (2007), p. 2; Sharma, Young, and Wilkinson (2015), p.64.

<sup>10</sup> See Cohen (2007), p. 2, 3.

<sup>11</sup> See T. Becker, Billings, Eveleth, and Gilbert (1996), p.465.

<sup>12</sup> See T. Becker et al. (1996), p.474.

<sup>13</sup> See Somers (2009), p. 80.



From a theoretical perspective this study will contribute by investigating the concepts trust and commitment, and their effects on supplier satisfaction. However, because previous literature has a more general approach to these concepts this study will focus on the different types of trust and commitment. These findings will lead to new research opportunities concerning the different types and their effects. Regarding the practical relevance this study will gain knowledge about what the different types are composed of and what needs to be done to use them in an organisation's advantage in satisfying their suppliers. Additionally, the examination of the complementary or substitution theory can provide relevant information for organisations. Knowing which types have an effect and whether they substitute or complement each other provides buying departments with an extra point of attention in acquiring more beneficial buyer-supplier relationships. For example, if only one type of commitment is present in the relationship but it can be complemented with another type, a buyer might focus on developing the second type to be even more beneficial for the satisfaction in the relationship.

This thesis has several aspects. First, a theoretical framework is presented in which the subjects of this study are reviewed using existing academic literature. The subjects discussed in this chapter are; supplier satisfaction, trust and commitment. Secondly, the methodology of this study is given. This chapter describes the research strategy, data collection method, selection of the sample and method of data analysis. The results chapter presents the results of the field research. Lastly, the discussion and implications discuss the key findings, limitations and future research recommendations.

## **2 Trust and commitment are the underlying elements in relationship dynamics influencing supplier satisfaction**

This chapter proposes the theoretical framework in which the topics of this study are discussed. This is done by using existing literature from different authors. Academic literature regarding the following topics is used: Supplier satisfaction, trust and commitment. Because this study is regarding buyer-supplier relationships, the core values of those relationships and what causes supplier satisfaction needs to be defined. Inter-organisational relationships are becoming more important to achieve strategic goals. There are many value drivers present within inter-organisational relationships, however, at the core are basic drivers of trust and commitment<sup>14</sup>. Business to business interactions occur at an individual level, and over time those interactions build a history that can lead to a successful relationship. According to Cote and Latham (2006), trust and commitment are intuitively the underlying elements in relationship dynamics. Trust and commitment are subtle forces that individuals do not recognise until a problem arises in the relationship<sup>15</sup>. However, more information regarding supplier satisfaction needs to be obtained first in order to continue with the forces that drive buyer-supplier relationships.

### **2.1 Supplier satisfaction, a necessary condition in inter-organisational relationships**

Supplier satisfaction determines the actual quality in a buyer-supplier relationship in terms of value creation, and it is the extent to which a buyer is satisfied with the transaction in the relationship<sup>16</sup>. Buyers should take the satisfaction of suppliers into account in order to have a successful and honest cooperation<sup>17</sup>. Organisations can gain a competitive advantage with the help of their suppliers; not only because the supplier provides tangible resources such as raw materials, but also intangible resources such as ideas and knowledge<sup>18</sup>. It is possible that other organisations try to get the same resources from one supplier, which might make it difficult to gain a competitive advantage through the resources received from that same supplier<sup>19</sup>. Supplier satisfaction has an important role in the process of resource allocation and the purchasing field in general: An unsatisfied

---

<sup>14</sup> See Morgan and Hunt (1994), p.22; Cote and Latham (2006), p. 295.

<sup>15</sup> See Cote and Latham (2006), p. 295.

<sup>16</sup> See Xu, Cenfetelli, and Aquino (2016), p.17.

<sup>17</sup> See Wong (2000), p.427.

<sup>18</sup> See Koufteros, Vickery, and Dröge (2012), p.96.

<sup>19</sup> See Takeishi (2002), p.323.

supplier will probably not help the buying company in the best way he can or supply products of less quality. This can lead to a lower quality of the buyer's products, which in turn can lead to a negative influence on sales volumes and profits of the buyer. Therefore, it is important to have a satisfied supplier<sup>20</sup> and moreover it indicates the importance of the organisation's awareness of the satisfaction level of its own suppliers. The following paragraphs will examine the history of supplier satisfaction, the definitions and the antecedents.

### **2.1.1 Reverse-marketing: The changing perspective from customer satisfaction to supplier satisfaction**

There has been a lot of research about *customer* satisfaction as it is seen as a relevant concept of business success. However, *supplier* satisfaction has only recently gained more attention<sup>21</sup>. A possible explanation for this is that buyer-supplier relationships were mostly seen from a supplier perspective, since they had to satisfy the customers as much as possible to retain them. This perspective changed in the 1980s and is called reverse-marketing: In order to obtain the best resources the buyers need to satisfy the suppliers<sup>22</sup>. In the early 2000s supplier satisfaction gained more interest from the supply chain field, where Wong (2000) was first to actually research supplier satisfaction in supply chain management. He stated that working together with suppliers will improve both supplier- and customer satisfaction. However, this study was conceptual and did not empirically test the ideas he proposed<sup>23</sup>. Forker and Stannack (2000) did an empirical research where they tested possible antecedents of supplier satisfaction and compared the effects of both competitive and cooperative exchange relationships on the satisfaction level of buyers and suppliers. They discovered that in a cooperative relationship the level of satisfaction is higher, compared to a competitive relationship. This is in agreement with the research of Wong (2000)<sup>24</sup>. These studies were the beginning of recognising the importance of supplier satisfaction in purchasing and supply chain management. In 2002, Maunu developed a conceptual framework on supplier satisfaction with nine dimensions, divided in two groups: Business-related dimensions (concrete and fact-based values) and

---

<sup>20</sup> See Essig and Amann (2009), p.104.

<sup>21</sup> See Benton and Maloni (2005), p.2; Schiele, Veldman, and Hüttinger (2011), p.12.

<sup>22</sup> See Leenders (1988), p.2; Schiele, Calvi, and Gibbert (2012), p.1178.

<sup>23</sup> See Wong (2000), p.427.

<sup>24</sup> See Forker and Stannack (2000), p.31.

communication-related dimensions (softer, human-based values)<sup>25</sup>. After the study of Maunu (2002), Benton and Maloni (2005) empirically tested the different types of power and performance on supplier satisfaction. They found that coercive- mediated power sources have a negative effect on supplier satisfaction, and that reward- mediated power sources and non-mediated power sources have a positive effect on satisfaction. However, they did not find any evidence that performance has a positive effect on the level of satisfaction<sup>26</sup>. In 2010, Nyaga et al. researched the effects of collaborative activities such as dedicated investments, joint efforts and information sharing on satisfaction from both buyer and supplier perspectives. They found that all three activities lead to commitment and trust, which in turn leads to a better performance and a higher level of satisfaction<sup>27</sup>. Another research that made a big contribution to the field was done by Hüttinger, Schiele, and Veldman (2012), who provided an extensive review of the antecedents of supplier satisfaction. The antecedents can be divided into four groups: Technical excellence, supply value, mode of interaction and operational excellence<sup>28</sup>. They observed a major trend in the articles they reviewed; scholars in the purchasing and supply management field mainly tested the effects of different relationship strategies on supplier satisfaction. This resulted in suppliers finding the atmosphere in the relationship and the development of the norms important, in contrast to the buyers who focussed on performance and the outcomes of the relationship<sup>29</sup>. An overview of the studies on supplier satisfaction is shown in Table 1 below.

---

<sup>25</sup> See Maunu (2002), p. 91-98.

<sup>26</sup> See Benton and Maloni (2005), p.1.

<sup>27</sup> See Nyaga, Whipple, and Lynch (2010), p.101.

<sup>28</sup> See Hüttinger et al. (2012), p. 1198-1200.

<sup>29</sup> See Hüttinger et al. (2012), p.1200.

<b>Authors</b>	<b>Focus</b>	<b>Method</b>	<b>Findings</b>
Wong (2000)	Cooperative culture, commitment to suppliers' satisfaction, constructive controversy	Conceptual	It argued that companies need to develop a cooperative culture, where working together with suppliers and satisfying their needs was deemed important. Additionally, an open-minded attitude in their interaction with suppliers should be taken into account.
Forkner and Stannack (2000)	Cooperative relationships	Survey	This article argued that the level of supplier satisfaction is higher in cooperative relationships than in competitive relationships.
Whipple et al. (2002)	The level of information exchange, accuracy of information exchange and the timeline of information exchange.	Survey	The overall level of satisfaction is influenced by an increase in the amount of operational information exchange.
Maunu (2002)	Profitability, agreements, business continuity, roles and responsibilities, early supplier involvement, openness and trust	Conceptual	This article developed a questionnaire that is useful for buying companies to measure and improve supplier satisfaction.
Benton and Maloni (2005)	Coercive-mediated power sources, reward mediated power sources, non-mediated power sources, performance	Survey	Reward mediated power sources and non-mediated power sources have a positive effect on satisfaction, while coercive-mediated power sources were found to have a negative effect. They found no relationship between performance and supplier satisfaction.
Leenders et al. (2006)	1. Granting substantial volumes, long-term commitments and exclusivity agreements. 2. Sharing internal information and extensive communication. 3. Exhibit a willingness to change behaviour in the purchasing organisation. 4. Respond rapidly to requests from suppliers.	Conceptual	Buyers can improve their level of supplier satisfaction by the four marketing and supply management tools mentioned in the column 'focus'.
Essig and Amann (2009)	Intensity of cooperation, order process, billing/ delivery, communication, conflict management, general view.	Survey	This article conceptualised supplier satisfaction through an index consisting of three dimensions; the strategic level, the operational level and the accompanying level.

Nyaga et al. (2010)	Collaborative activities, trust and commitment	Survey	Supplier satisfaction is positively influenced by collaborative activities and information sharing, joint relationship efforts and dedicated investments, which are mediated by trust and commitment.
Ghijssen et al. (2010)	Indirect influence strategies, direct influence strategies, direct supplier development activities and dependence	Survey	The use of promises and both human- and capital-specific supplier development positively impact supplier commitment. While indirect influence strategies, the other direct influence strategies and capital-specific supplier development have a positive effect on supplier satisfaction.
Hüttinger et al. (2012)	Preferential treatment, antecedents of supplier satisfaction, customer attractiveness and preferred customer status	Conceptual	The found antecedents of supplier satisfaction can be categorised into four groups: Technical excellence, supply value, mode of interaction and operational excellence.
Hüttinger et al. (2014)	Antecedents of supplier satisfaction, preferred customer status, preferential treatment	Survey	Possible antecedents on supplier satisfaction were placed in a model with supplier satisfaction, preferred customer status and preferential treatment. It was found that growth opportunity, reliability and relational behaviour have an effect.

Table 1: Overview of the studies about supplier satisfaction and their findings<sup>30</sup>.

### 2.1.2 Supplier satisfaction is a condition that is achieved if the quality of outcomes of a buyer-supplier relationship meets or exceeds the supplier's expectations

Essig and Amann (2009), state that “*supplier satisfaction is a supplier's feeling of fairness with regard to buyer's incentives and supplier's contributions within an industrial buyer-seller relationship as relates to the suppliers' need fulfilment, such as the possibility of increased earnings or the realisation of cross-selling*”<sup>31</sup>. Another definition is given by Benton and Maloni (2005): “*The feeling of equity with the relationship no matter what power imbalance exists*”<sup>32</sup>. However, the most complete definition that combines previous definitions is by Schiele et al. (2012), who explains that supplier satisfaction is “*a condition that is achieved if the quality of outcomes of a buyer-supplier relationship meets*

<sup>30</sup> Source: Based on Lelij (2016).

<sup>31</sup> See Essig and Amann (2009), p.104.

<sup>32</sup> See Benton and Maloni (2005), p.5.

*or exceeds the supplier's expectations*<sup>33</sup>. This definition is in line with the social exchange theory (SET), which can be used to define supplier satisfaction. The SET is based on the expectations two parties have of each other before starting a relationship. When the expected value of a relationship is above a certain level, the other party will be seen as attractive. This is seen as a necessary condition in starting a relationship<sup>34</sup>. The expectations before starting a relationship can be seen as the result of rewards that are expected, minus the costs of being involved in that relationship. The SET thus indicates that the expectations of the relationship are relevant for suppliers to judge the relationship with their customer. *"Supplier satisfaction is the result of the comparison of the expectations of a relationship with a buyer and the delivered outcome of this relationship"*<sup>35</sup>, which means that supplier satisfaction is the degree to which expectations are met.

Satisfaction is a multidimensional construct and consists of an economic part and a non-economic/social part<sup>36</sup>. The SET agrees with this; the exchange between two parties can be divided into social and economic exchange and so can the satisfaction in exchange relationships<sup>37</sup>. The economic part is about the appraised economic outcomes that follow from being in the relationship, relative to the organisation's expectations concerning the financial aspects of the relationship, for example; productivity, margins, profits and sales volume. If an organisation is satisfied economically, it can consider the relationship to be a success<sup>38</sup>. The social part of satisfaction is regarding the appraised psychosocial aspects of a relationship and to which degree the interaction between the two parties is fulfilling<sup>39</sup>. When an organisation is satisfied with the relationship on a social level it considers the other party as respectful, concerned and willing to exchange ideas<sup>40</sup>. It can thus be concluded that satisfaction consists of two parts; an economic and social part, and both parts together form the actual satisfaction with the relationship. The following paragraph discusses the most important influencers of satisfaction.

---

<sup>33</sup> Schiele et al. (2012), p.1181.

<sup>34</sup> See Schiele et al. (2012), p.140.

<sup>35</sup> See Praas (2016), p.14.

<sup>36</sup> See Geyskens (1999), p.223.

<sup>37</sup> See Gassenheimer and Ramsey (1994), p.261; Mohd Noor, Perumal, and Goail (2015), p.128-129.

<sup>38</sup> See Geyskens (1999), p.13.

<sup>39</sup> See Geyskens (1999), p.13.

<sup>40</sup> See Geyskens (1999), p.224.

### **2.1.3 The antecedents of supplier satisfaction: Trust and commitment are important influencers**

A research by Hüttinger et al. (2012) elaborated on the antecedents of supplier satisfaction and made an in- depth literature review. They state that the antecedents can be categorized into four groups; (1) technical excellence, (2) supply value, (3) mode of interaction and (4) operational excellence<sup>41</sup>. (1) Technical excellence concerns only the technical aspects of an organisation, mainly the research and development department. Antecedents in this group are for example; technical competence, early supplier involvement and supplier development. The (2) supply value category refers to how the value creation in a relationship is mainly influenced by the purchasing and supply department. For example; the bargaining position, how cooperative the relationship is and the profitability of the relationship. (3) Mode of interaction is about the interaction in a relationship and is driven by all functions of an organisation. The structure of the communication, the communication itself and information sharing are the antecedents in this group. (4) Operational excellence is about the operational part of the buying firm that influences the relationship with the supplier, for example; forecasting, planning and order processes are part of this category<sup>42</sup>. More recently, the same authors designed a model of supplier satisfaction. They identified eight possible antecedents; growth opportunities, innovation potential, reliability, relational behaviour, operative excellence, support, contact accessibility and involvement. It was established that only growth opportunity, reliability and relational behaviour have a significant effect on supplier satisfaction<sup>43</sup>. Another view on the antecedents of supplier satisfaction is from Nyaga et al. (2010), who studied the effects of collaborative activities on supplier satisfaction, for example through information sharing, joint efforts, investments and involvement. They discovered that all three collaborative activities lead to a higher level of commitment and trust, which in turn leads to a higher overall satisfaction and better performance<sup>44</sup>. As mentioned before, trust and commitment are intuitively the underlying elements in relationship dynamics. Morgan and Hunt (1994) elaborate further on the research by Nyaga et al. (2010) and declare that trust and commitment are essential to any successful relationship<sup>45</sup>. They are the subtle forces

---

<sup>41</sup> See Hüttinger et al. (2012), p.1198-1200.

<sup>42</sup> See Hüttinger et al. (2012), p.1198-1200.

<sup>43</sup> See Hüttinger et al. (2012), p.697.

<sup>44</sup> See Nyaga et al. (2010), p.101.

<sup>45</sup> See Morgan and Hunt (1994), p.22.



that individuals do not recognise, or the impact they have on the organisation<sup>46</sup>. Trust and commitment are essential because they encourage people to work at preserving the relationship by cooperating with exchange partners. Furthermore, they help people to resist attractive short-term alternatives in favour of the expected long-term benefits of staying with existing partners. When both trust and commitment are present they can benefit organisations with higher efficiency, productivity and effectiveness<sup>47</sup>. In other words, trust and commitment have a direct impact on cooperative behaviour that contributes to relationship success. Thus, trust and commitment impact a relationship in general and the relationship in turn has an impact on supplier satisfaction.

The operative antecedents by Hüttinger et al. (2012) mentioned in the beginning of this paragraph have already been studied in depth. Even though trust and commitment are big influencers in relationship dynamics and supplier satisfaction, not much research has been done about their effect. This could be because trust and commitment are ‘soft’ variables in a relationship that are more difficult to measure. It is clear that this subject needs more attention. Therefore, this study will look further into trust and commitment, the different types of trust and commitment and their effects on supplier satisfaction.

## **2.2 The importance of trust and challenges with the definition of trust itself**

Trust has been a topic of interest in literature for the past forty years, especially in organisational studies. The importance of trust has been pointed out in fields as communication, leadership, negotiation, game theory, management objectives, performance appraisal and labour-management relations<sup>48</sup>. Even though a lot of research has been done about the subject there are still some challenges: Problems have occurred with the definition of trust itself, some researchers find the definitions contradicting and confusing<sup>49</sup>, there is confusion between trust and its antecedents and outcomes, and failure to consider both the party to be trusted and the trusting party<sup>50</sup>. The problem regarding the definitions of trust will be tackled in the subsequent paragraphs.

---

<sup>46</sup> See Cote and Latham (2006), p.295.

<sup>47</sup> See Morgan and Hunt (1994), p. 22.

<sup>48</sup> See Gambetta (2000), p. 215.

<sup>49</sup> See McKnight and Chervany (2001), p.37.

<sup>50</sup> See Mayer, Davis, and Schoorman (1995), p.709.

### 2.2.1 Trust can be seen as the cornerstone of strategic partnerships

Trust is a central component in effective working relationships. Mohr and Spekman (1994) even state that trust is the cornerstone of strategic partnerships. Trust is viewed as *“the degree to which the counterpart is perceived by the boundary spanner to be reliable, predictable and fair.”*<sup>51</sup> And is defined as *“an expectation held by an agent that its trading partner will behave in a mutually acceptable manner and will act fairly when the possibility for opportunism is present”*<sup>52</sup>. Another definition is given by Lewicki and Bunker (1996), who state that trust is *“a state involving confident positive expectations about another’s motives with respect to oneself in situations involving risks”*<sup>53</sup>. The above mentioned definitions are regarding a general view on trust, but when looking from an organisational perspective they are similar with the definition of inter-organisational trust: *“the expectation that an actor (1) can be relied on to fulfil obligations, (2) will behave in a predictable manner, and (3) will act and negotiate fairly when the possibility for opportunism is present”*<sup>54</sup>. Even though the definitions are similar, the last definition is more suitable to this study because it is regarding inter-organisational relationships. Multiple studies suggest that trust is often based on expectations and the history of a relationship<sup>55</sup>. Trust can possibly enhance the relationship between buyer and supplier and establish a profitable economical exchange<sup>56</sup>.

### 2.2.2 There are many characteristics that influence trust

Conditions that lead to trust have been researched repeatedly in literature. Some authors only identify one characteristic that leads to trust, whereas other identify ten characteristics leading to trust<sup>57</sup>. A review of antecedents that lead to trust is shown in Table 2. Even though many factors have been proposed by several authors, the ones that appear most often in literature are (1) ability, (2) integrity and (3) benevolence. (1) *“Ability is that group of skills, competencies, and characteristics that enable a party to have influence within some specific domain”*<sup>58</sup>. It is regarding a specific domain because the trustee (the one to be trusted) may be very skilled in a technical area, affording that person trust on

---

<sup>51</sup> McEvily, Zaheer, and Kamal (2017), p.76.

<sup>52</sup> Sako and Helper (1998), p. 388.

<sup>53</sup> Lewicki and Bunker (1996), p.114.

<sup>54</sup> Anderson and Weitz (1992) cited according to Yaqub, Malik, and Shah (2010), p. 136.

<sup>55</sup> See Granovetter (1985); Ring and Van de Ven (1994); Gulati (1995); Doney and Cannon (1997) as cited according to Sharma et al. (2015), p.47.

<sup>56</sup> See Morgan and Hunt (1994); Hagen and Choe (1998); Liu, Luo, and Liu (2009) as cited according to Sharma et al. (2015), p.47

<sup>57</sup> See Mayer et al. (1995), p.717.

<sup>58</sup> Mayer et al. (1995), p.717.

tasks related to that area. Yet the trustee may have little experience or skills in another area. Even though such an individual may be trusted in a technical field, he/she will not be trusted in another area. Therefore, trust is domain specific. (2) Integrity involves the trustor's (the one who trusts) perception that the trustee (the one to be trusted) complies with a set of principles that the trustor finds acceptable. (3) Benevolence is the way in which a trustee is believed to want to do good to the trustor. It suggests that the trustee has an attachment to the trustor<sup>59</sup>.

<b>Author(s)</b>	<b>Antecedent/characteristics that influence trust</b>
Solomon (1960)	Benevolence
Deutschi (1960)	Ability, intention to produce
Giffin (1967)	Reliability as information source, expertness, dynamism, personal attraction, reputation
Kee and Knox (1970)	Competence, motives
A. P. Jones, James, and Bruni (1975)	Ability, behaviour is relevant to the individual's needs and desires
J. Cook and Wall (1980)	Ability, trustworthy intentions
Larzelere and Huston (1980)	Benevolence, honesty
Johnson-George and Swap (1982)	Reliability
Hart, Capps, Cangemi, and Caillouet (1986)	Shared values, openness, autonomy
Butler Jr (1991)	Availability, consistency, competence, discreetness, integrity, fairness, loyalty, openness, promise fulfilment, receptivity
Sitkin and Roth (1993)	Ability, value congruence
Ring and Van de Ven (1994)	Moral integrity, goodwill

Table 2: Antecedents of trust.

### **2.2.3 Trusting intention and trusting beliefs are among the various types of trust**

In the previous paragraph it became clear that authors have contradicting views on the characteristics of trust; some only identify one while others identify more. This is the same with the types of trust. There are many authors with different views and some mention only two general types, whereas others identify more general types with accompanying sub-

<sup>59</sup> See Mayer et al. (1995), p.717-720.

types. An overview of the different types and sub-types of trust can be found in Table 3 and they are explained in detail further in this paragraph.

<b>Author(s)</b>	<b>Conceptualisation</b>	<b>Aspects</b>
Lewicki and Bunker (1996)	CBT, KBT, IBT	<ul style="list-style-type: none"> <li>- Calculus- based trust</li> <li>- Knowledge- based trust</li> <li>- Identification- based trust</li> </ul>
Meyerson, Weick, and Kramer (1996)	Swift trust	<ul style="list-style-type: none"> <li>- Strong and resilient</li> <li>- Action and recognition</li> </ul>
G. R. Jones and George (1998)	Conditional trust	<ul style="list-style-type: none"> <li>- Conditional trust</li> <li>- Unconditional trust</li> </ul>
Moses (1999)	Two basic types	<ul style="list-style-type: none"> <li>- Direct trust</li> <li>- Third party trust</li> </ul>
Dickey, Harrison McKnight, and George (2008)	Trusting intention and trusting belief	<ul style="list-style-type: none"> <li>- Trusting intention <ul style="list-style-type: none"> <li>&gt; Negative consequences</li> <li>&gt; Dependence</li> <li>&gt; Feelings of security</li> <li>&gt; Situation specific content</li> <li>&gt; Lack of reliance on control</li> </ul> </li> <li>- Trusting belief <ul style="list-style-type: none"> <li>&gt; Benevolence</li> <li>&gt; Honesty</li> <li>&gt; Competence</li> <li>&gt; Predictability</li> </ul> </li> </ul>
McKnight and Chervany (1996)	Expectancies and beliefs, behaviour aspects and cognitive/affective aspects	<ul style="list-style-type: none"> <li>- Expectancies and beliefs <ul style="list-style-type: none"> <li>&gt; Trusting intention</li> <li>&gt; Trusting belief</li> </ul> </li> <li>- Behaviour aspects <ul style="list-style-type: none"> <li>&gt; Trusting behaviour</li> <li>&gt; System trust</li> </ul> </li> <li>- Cognitive/affective aspects <ul style="list-style-type: none"> <li>&gt; Dispositional trust</li> <li>&gt; Situational decision to trust</li> </ul> </li> </ul>

Table 3: Types of trust.

The first types of trust mentioned in Table 3 are by Lewicki and Bunker (1996), who suggest three types of trust; calculus-based trust (CBT), knowledge-based trust (KBT) and identification-based trust (IBT). Each is corresponding to a different stage in a relationship, *“they are linked in a sequential iteration in which the achievement of trust at one level enables the development of trust at the next level”*<sup>60</sup>. CBT is about the rewards to be derived from pursuing a relationship and the fear of punishment for the violation of the trust. This type of trust is about dominant motivators, like sanctions, rather than rewards seeking motivators. The nature of CBT is more likely to be formal and has limited levels of knowledge sharing. KBT relies on information about involved parties, which is developed through interactions over time. KBT is about predictability, knowing the other well enough to know that the other’s behaviour is anticipatable. This type is much stronger than CBT and more forgiving of inconsistent behaviour in the relationship. Additionally, because it is a stronger type of trust there is a higher level of knowledge sharing. IBT is the strongest type of trust and is characterised by mutual understanding to the point that *“the other can be confident that his/her interests will be fully protected and that no surveillance or monitoring of the actor is necessary”*<sup>61</sup>. Partners in an IBT relationship develop a shared identity with the same needs, thoughts and behaviour<sup>62</sup>.

Meyerson et al. (1996) present the concept of swift trust. This is a type of trust that is strong and resilient enough to exist without the traditional trust-antecedents such as ability, integrity and benevolence. It presumes clear roles and each person has a good understanding of the other persons’ responsibilities and roles<sup>63</sup>. Additionally, this ‘cold’ type of trust has less emphasis on feeling and commitment, but more on action and recognition. An example of when swift trust occurs is during temporary organisational structures like in an organisational task force or on a movie set. People are brought together to complete a given task in a short period without a trust-relationship being build over time<sup>64</sup>. Next, G. R. Jones and George (1998) studied conditional trust. This type of trust is mostly found at the initial stages of relationships when there are no obvious reasons to distrust. When the relationships ages and familiarity increases, conditional trust transforms into unconditional trust. Unconditional trust stems from experience, confidence

---

<sup>60</sup> Lewicki and Bunker (1996), p.118.

<sup>61</sup> Lewicki and Bunker (1996), p.122.

<sup>62</sup> See Lewicki and Bunker (1996), p. 121-124.

<sup>63</sup> See Meyerson et al. (1996), p. 166.

<sup>64</sup> See Panteli and Sockalingam (2005), p.601.

and first-hand knowledge of the other party<sup>65</sup>. Moses (1999) divides trust in two basic types; direct trust and third-party trust. Direct trust is a relationship developed by the two parties themselves. Third-party trust is developed between two parties who do not know each other, but are willing to trust each other thanks to a reliable third party<sup>66</sup>.

The last two types described in Table 3 are from the authors McKnight and Chervany (1996) and Dickey et al. (2008). The two studies overlap; they both conceptualise around expectancies and beliefs, and discuss trusting intention and trusting belief as the first types. Trusting intention and trusting belief are considered the base of trust, hence why both studies described them first. The remaining types described by McKnight and Chervany (1996) are what follows after the initial base trust is formed. For example, 'trusting behaviour' flows from trusting intention, because the willingness to depend (trusting intention) leads to the actual depending (behaviourally). Therefore, the following section will only describe trusting intention and trusting belief from Dickey et al. (2008). Additionally, the types from McKnight and Chervany (1996) are described in the oldest source and might be outdated.

Dickey et al. (2008) divides trust in two ways: A willingness or intention to depend on the trustee (1. Trusting intention) and/or a confident belief or expectation (2. Trusting belief)<sup>67</sup>. (1) Trusting intention means the willingness of one party to rely or depend on another party in specific situations<sup>68</sup>, based on the notion that the other party will not exploit this vulnerability<sup>69</sup>. It is about whether one is willing to depend on another party in a specific situation. Trusting intention is defined on an individual level, instead of on a society or group level. It is defined on an individual level because it is the most simple and primary unit of a relationship. There are five components in trusting intention, namely (a) potential negative consequences, (b) dependence, (c) feelings of security, (d) situation specific content and (e) lack of reliance on control. (a) The prospect of negative consequences or the possibility of risks is what makes trust important but also a possible problem. However, a certain amount of risk is necessary in order for trust to be present, because without risk the situation would not present any challenge for the formation of trusting intention. Trusting intention also involves (b) dependence on another person. If one person is not

---

<sup>65</sup> See G. R. Jones and George (1998), p.531.

<sup>66</sup> See Moses (1999), p.7.

<sup>67</sup> See McKnight et al. (1998); Dickey et al. (2008), p. 256.

<sup>68</sup> See McKnight and Chervany (1996), p. 27; Dickey et al. (2008), p.255; Yaqub et al. (2010), p.136.

<sup>69</sup> See Mayer et al. (1995), p 711.

*required* to depend on another, one does not need to be *willing* to depend on another. Furthermore, dependence is linked to power; one who becomes dependent on another is giving the other a position of power over him/her. Because trusting intention is about willingness to depend, one is willing to place the other in a position of dependence-based power. (c) Feelings of security are regarding whether one feels safe and comfortable about his/her willingness to depend. It is an important aspect of trust, because in order to trust there needs to be a feeling of security. This aspect of trusting intention is an emotional component, whereas the other aspects are cognitive. Trusting intention is (d) situation-specific, based on which tasks the person trusts another person with. (e) Lack of reliance on control is related to power, as mentioned in (b) dependence. McKnight and Chervany (1996) state: *“The distinction between power/control and trusting intention rests on the idea that the person who trusts must “trust trust” or “rely on trust”, and must not significantly depend on control mechanisms”*<sup>70</sup>.

(2) Trusting beliefs are considered the core of trust that facilitates perception about the moral behaviour of any business person<sup>71</sup>. It is about whether one believes that the other person is trustworthy in a given situation, where trustworthy means one is able and willing to act in the other person’s best interests. Boone and Holmes (1991) describe trusting beliefs in other words; it involves perceptions that the other party will act in ways favourable to the trustor or that the other party has ethical and favourable characteristics<sup>72</sup>. Like the previous two constructs, it is situation-specific and person-specific. According to McKnight and Chervany (1996) it consists of four categories; (a) benevolence, (b) honesty, (c) competence and (d) predictability. (a) Benevolence is about whether one person cares about the welfare and wellbeing of the other person, and is motivated to act upon the other person’s interest. Aspects that are part of benevolence are ‘caring’, ‘good intentions’ and ‘morality’. (b) Honesty means one tells the truth and fulfils promises. Honesty also includes a person’s credibility and reliability. (c) Competence is about efficiency and whether one has the ability to perform the necessary tasks another person appoints, in other words; if a person is able to complete a certain task. (d) Predictability means consistency of one’s actions so that another person can make a forecast<sup>73</sup>. Other researchers added some

---

<sup>70</sup> McKnight and Chervany (1996), p. 27-30.

<sup>71</sup> See Sahi, Sekhon, and Quareshi (2016), p.863.

<sup>72</sup> See Boone and Holmes (1991) as cited according to Yaqub et al. (2010), p. 136; Dickey et al. (2008), p.255.

<sup>73</sup> See McKnight and Chervany (1996), p. 33, 34.

aspects to trusting beliefs, namely: Continuity of natural order, competence and dependability<sup>74</sup>; ability and integrity<sup>75</sup>, judgement and openness<sup>76</sup>; and reliability<sup>77</sup>.

#### **2.2.4 Trusting intention and trusting belief are the chosen framework**

The chosen framework for this study will be the two aspect categorization by Dickey et al. (2008): Trusting intention and trusting belief. Both trusting intention and trusting belief are most used in literature and seem the most important aspects of trust. In inter-organisational relationships trusting intention seems most important because trusting intention is about the willingness of one party to rely or depend on the other party, which implies the 'base' of trust. Thus, this type of trust needs to exist before any other type can be present. Furthermore, trusting beliefs is about whether one believes that the other party is trustworthy in a given situation and involves the perception that the other party will act in ways favourable to the trustor. This is important for this study because it is about the base of trust, which is in turn very important for supplier satisfaction.

Even though the categories used by McKnight and Chervany (1996) are very detailed and most in-depth, they are not useful for this study. They also described trusting intention and trusting belief, but broadened it with two follow-up types which will not exist when there is no base of trust. Additionally, the types by McKnight and Chervany (1996) are described in one of the oldest sources and might be outdated. The classification by Moses (1999) regarding direct trust and third-party trust is not beneficial for this study because it has nothing to do with the influence of trust on relationships, solely on how the trust is formed. Lewicki and Bunker's (1996) types of trust are each corresponding to a different stage in a relationship in which the achievement of trust at one level enables the development of trust at the next level. This is not suitable for this study because it is looking at the base of trust; not the development of trust or pursuing a relationship. The conceptualisation of swift trust from Meyerson et al. (1996) and the conceptualisation of conditional trust by G. R. Jones and George (1998) are not fitting as well because the focus of this study is on ongoing buyer-supplier relationships, not on temporary relationships. Therefore, trusting intention and trusting belief are most suitable to this study.

---

<sup>74</sup> See Kumar (1996), p. 95.

<sup>75</sup> See Mayer et al. (1995), p.711.

<sup>76</sup> See Kramer and Tyler (1996) as cited according to Yaqub et al. (2010), p.136.

<sup>77</sup> See Rempel, Holmes, and Zanna (1985) as cited according to Yaqub et al. (2010), p. 136.



### **2.3 Commitment is seen as a critical success factor that influences inter-organisational relationships**

The competitiveness of an organisation depends on more than just its own skills and resources. The relations the organisation has with other organisations are equally important, through which key resources, knowledge, skills and so on are co-created. The ability to gain such a relationship depends on how cooperative an organisation is, and has led researchers to focus on the importance of cooperation or collaborative advantages as a source of organisational success<sup>78</sup>. That is where commitment comes in place; by multiple researchers it is seen as a critical success factor that influences success or failure of relationships between organisations<sup>79</sup>. Furthermore, trust and commitment are strongly related to each other. The link between trust and commitment is explained by Ring and Van de Ven (1994), who emphasize that inter-organisational trust develops when parties get to know themselves and gain a common understanding of mutual commitments<sup>80</sup>. Thus, when trust is studied commitment should be analysed as well.

Researchers have explored the concept of commitment for more than half a century, starting in the 1960's to now<sup>81</sup>. H. S. Becker (1960) appears to be the first to discuss commitment. He developed the side-bet theory: The more organisational resources one has obtained and could lose by leaving the employing system, the greater the personal commitment to stay with the organisation, indicating that individuals become committed to their organisations not because they are feeling attached, but because the costs associated with leaving are too high<sup>82</sup>. The original focus was on the causes of maintaining different types of relationships between employee-employer and individual-community. In these early stages research was mostly performed in the social psychology field. Later this was extended to the cooperate field<sup>83</sup>.

---

<sup>78</sup> See Wilkinson and Young (2002) as cited according to Sharma et al. (2015), p. 45.

<sup>79</sup> See Stuart (1993); Gounaris (2005), Sahadev (2008) as cited according to Sharma et al. (2015), p. 45.

<sup>80</sup> See Ring and Van de Ven (1994), p.110.

<sup>81</sup> See Singh and Gupta (2015), p. 1194.

<sup>82</sup> See H. S. Becker (1960), p.33

<sup>83</sup> See Rusbult (1980), p. 186.

### **2.3.1 Organisational commitment is the desire to stay loyal to the organisation and identify with the organisational purposes**

Several researchers make a distinction between personal commitment and organisational commitment<sup>84</sup>. Personal commitment is defined by Morrow (1983) as an attachment, identification or loyalty to the entity of the commitment<sup>85</sup>, whereby a person is in a state of being where the individual becomes bound by his actions<sup>86</sup>. Kanter (1968) adds that personal commitment is about the attachment of an individual's affectivity and emotion to a certain person<sup>87</sup>. According to Mowday, Steers, and Porter (1979), personal commitment is regarding the relative strength of an individual's identification with and involvement in the entity of the commitment<sup>88</sup>, and can only be built on actions, not on promises. Actions such as adaption, communication, bonds, degree of cooperation, length of relationship and quality generate commitment<sup>89</sup>. Besides the importance of actions of both parties, Doney and Cannon (1997) add that commitment grows when the two parties share multiple experiences together over time, thereby improving each other's ability to predict the other's behaviour<sup>90</sup>. Hence, the degree of commitment has been build up over time and is based on a specific history in terms of how the parties have treated each other.

When engaged in business relationships, commitment refers to organisational commitment. It has been defined as the relative strength of an individual's identification and involvement in a particular organisation<sup>91</sup>. Besides the involvement of the individual to the organisation itself, Pool and Pool (2007) mention that organisational commitment also reflects the extent to which an individual identifies- and is committed to the organisational goals<sup>92</sup>. A more detailed definition is given by Aydin, Sarier, and Uysal (2011), who state that *“organisational commitment is a definite desire to maintain organisational membership, identification with the purposes, successes of organisation, the loyalty of an employee, and a willingness to exert considerable effort on behalf of the organisation”*<sup>93</sup>. Furthermore, organisational commitment is about the willingness of buyers and suppliers to exert effort on behalf of the relationship. Commitment to an organisational relationship

---

<sup>84</sup> See Meyer and Allen (1991), p. 61; Cohen (2007), p.3; Singh and Gupta (2015), p.1194.

<sup>85</sup> See Morrow (1983) as cited according to Singh and Gupta (2015), p. 1194.

<sup>86</sup> See Salancik and Pfeffer (1978), p. 62.

<sup>87</sup> See Kanter (1968), p. 507.

<sup>88</sup> See Mowday et al. (1979), p.226.

<sup>89</sup> See Zineldin and Jonsson (2000), p. 256.

<sup>90</sup> See Doney and Cannon (1997), p. 37.

<sup>91</sup> See Mowday et al. (1979), p. 27.

<sup>92</sup> See Pool and Pool (2007), p. 353.

<sup>93</sup> Aydin et al. (2011), p. 628.

is most frequently demonstrated by committing resources to the relationship. Those resources are often referred to as ‘asset specific’ resources, directed specifically towards the other party<sup>94</sup>. Morgan and Hunt (1994) state: “*commitment refers to an exchange partner’s belief that an ongoing relationship with another firm is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure it endures indefinitely*”<sup>95</sup>. Collaborative activities such as joint relationship efforts, information sharing and dedicated investments leads to commitment, which in turn can lead to improved satisfaction and performance<sup>96</sup>. The difference between personal commitment and inter-organisational commitment is that personal commitment is not formal and may be considered incidental, whereas inter-organisational commitment is the relationship between organisations. Moreover, inter-organisational commitment is formalised through contracts and obligations. This element of formality distinguishes personal commitment from organisational commitment. Since this study is regarding inter-organisational relationships, the focus will be on organisational commitment instead of personal commitment<sup>97</sup>.

### **2.3.2 Problematic areas in the most well- know conceptualisation of commitment**

Previous research has shown that there are a number of different types of general commitment. An overview of those types can be seen in Table 4 and are elaborated further in this paragraph.

<b>Author(s)</b>	<b>Conceptualisation</b>	<b>Aspects</b>
Porter, Steers, Mowday, and Boulian (1974)	Psychological factors	<ul style="list-style-type: none"> <li>- Identification</li> <li>- Involvement</li> <li>- Loyalty</li> </ul>
Meyer and Allen (1991)	Attitudinal and behavioural commitment	<ul style="list-style-type: none"> <li>- Attitudinal <ul style="list-style-type: none"> <li>&gt; Affective</li> <li>&gt; Continuance</li> <li>&gt; Normative</li> </ul> </li> <li>- Behavioural</li> </ul>

<sup>94</sup> See Monczka, Petersen, Handfield, and Ragatz (1998), p. 557.

<sup>95</sup> Morgan and Hunt (1994), p. 26.

<sup>96</sup> See Nyaga et al. (2010), p. 101.

<sup>97</sup> See Mavondo and Rodrigo (2001), p.112.

Cohen (2007)	Four component commitment model	<ul style="list-style-type: none"> <li>- Bases of commitment <ul style="list-style-type: none"> <li>&gt; Instrumental consideration</li> <li>&gt; Psychological attachment</li> </ul> </li> <li>- Timing of commitment <ul style="list-style-type: none"> <li>&gt; Commitment propensity</li> <li>&gt; Organisational commitment</li> </ul> </li> </ul>
--------------	---------------------------------	---

Table 4: Types of commitment.

The majority of existing literature have used the conceptualisation of commitment by Meyer and Allen (1991), who state that organisational commitment can be divided into attitudinal and behavioural commitment, and in turn attitudinal commitment can be subdivided into affective, continuance and normative commitment. This conceptualisation is supported by several other researchers<sup>98</sup>. Attitudinal commitment includes the economic concerns of partners<sup>99</sup>, the desire to develop a social relationship<sup>100</sup> and the desire to develop a stable relationship<sup>101</sup>. Furthermore, attitudinal commitment is based on sentiments of affection, emotional attachment and social bonding<sup>102</sup>. This type of commitment plays a large role in developing long-term relationships<sup>103</sup>. The second type of commitment (behavioural) involves balancing rewards and costs of continuing the relationship and is more calculative in nature. It can be negative or positive, depending on the type of relationship and the reason for continuing the relationship<sup>104</sup>. It occurs when investments of time, effort and resources in relationships are made in the form of products, services or processes. The degree to which those resources are made available is an indication for the degree of behavioural commitment and potential source of vulnerability to opportunism on the part of the partner<sup>105</sup>. With this type of commitment the focus is on relational investments rather than the calculative processes in deciding the nature, quantity and motivation of resources to be invested.

<sup>98</sup> See Mowday et al. (1979), p. 47; Meyer and Allen (1991), p. 62; Brown (1996), p. 232; Sharma et al. (2015), p. 46.

<sup>99</sup> See Sahadev (2008) as cited according to Sharma et al. (2015), p. 46.

<sup>100</sup> See Anderson and Weitz (1992) as cited according to Sharma et al. (2015), p. 46.

<sup>101</sup> See Arndt (1979) as cited according to Sharma et al. (2015), p. 46.

<sup>102</sup> See Young and Denize (1995); Zineldin and Jonsson (2000) as cited according to Sharma et al. (2015), p. 46.

<sup>103</sup> See Schurr and Ozanne (1985) as cited according to Sharma et al. (2015), p. 46.

<sup>104</sup> See Anderson and Weitz (1992) as cited according to Sharma et al. (2015), p. 46.

<sup>105</sup> See Williamson (1975) as cited according to Sharma et al. (2015), p. 46.

The first subdivision of attitudinal commitment, affective commitment, refers to an affective or emotional attachment to an organisation. An individual who is greatly committed to an organisation is involved, identifies with and enjoys being a part of the organisation<sup>106</sup>. Individuals who have strong affective commitment are more committed to pursue individual and organisational goals<sup>107</sup>. English, Morrison, and Chalon (2010) add that affective commitment is about a psychological state that characterises the relationship an employee has with the organisation<sup>108</sup>. Thus, with affective commitment employees remain in an organisation because they want to<sup>109</sup>. Mowday et al. (1979) takes a more in-depth approach to affective commitment and states that there are four categories; personal characteristics, structural characteristics, job-related characteristics and work experiences<sup>110</sup>. The second subdivision of attitudinal commitment (continuance commitment) is referring to the awareness of the costs associated with leaving an organisation<sup>111</sup>. Meyer and Herscovitch (2001) define continuance commitment as “*the perception that it would be costly to discontinue a course of action*”<sup>112</sup>. Thus, employees remain in an organisation because they feel like it will be more beneficial. The third type (normative commitment), can be described as the desire of an individual to remain in an organisation due to a feeling of obligation<sup>113</sup>. Meyer and Parfyonova (2010) believe that normative commitment has two sides; indebted obligation and moral duty, because normative commitment is about whether an individual stays with an organisation because it is the right thing to do and because they ought to do so<sup>114</sup>.

Another way to characterise organisational commitment is by Porter et al. (1974). They categorised commitment by three psychological factors: (1) Identification, which entails a belief in and acceptance of organisational goals and values; (2) Involvement, which is about a willingness to exert an effort towards organisational goals; and (3) Loyalty, which is a strong desire to remain with an organisation<sup>115</sup>.

---

<sup>106</sup> See Meyer and Allen (1991), p.2.

<sup>107</sup> See Darolia, Kumari, and Darolia (2010) as cited according to Yahaya and Ebrahim (2016), p. 201.

<sup>108</sup> See English et al. (2010), p. 395.

<sup>109</sup> See Allen and Meyer (1990) as cited according to Yahaya and Ebrahim (2016), p. 201.

<sup>110</sup> See Mowday et al. (1979) as cited according to Meyer and Allen (1991), p. 69.

<sup>111</sup> See Hassett (2015), p. 23.

<sup>112</sup> Meyer and Herscovitch (2001), p. 316.

<sup>113</sup> See Allen and Meyer (1990) as cited according to Yahaya and Ebrahim (2016), p. 201.

<sup>114</sup> See Meyer and Parfyonova (2010), p. 284.

<sup>115</sup> See Porter et al. (1974), p.3.

Cohen (2007) does not agree with both the divisions by Meyer and Allen (1991) and Porter et al. (1974). He debates that the overlap between normative and affective commitment, and unclear dimensionality in continuance commitment are unclear and too vague. This has led to the development of a new model which suggests only two dimensions: (1) The bases of commitment and (2) the timing of commitment. (1) The bases of commitment makes a distinction between commitment based on instrumental considerations and commitment based on psychological attachment. (2) The timing of commitment categorises between commitment propensity which develops before entering an organisation, and organisational commitment which develops after entry into the organisation<sup>116</sup>. This theory proposes four forms of organisational commitment, illustrated in Figure 1<sup>117</sup>.

		<b>Bases of commitment</b>	
<b>Dimensions</b>		<i>Instrumental attachment</i>	<i>Psychological attachment</i>
<b>Timing</b>	<i>Before entry to the organisation</i>	Instrumental commitment propensity	Normative commitment propensity
	<i>After entry to the organisation</i>	Instrumental commitment	Affective commitment

Figure 1: Four component commitment model.

Two of those forms evolve before entering an organisation and two evolve after entering in a relationship with an organisation. The first two forms that evolve before entering are described as follows:

*“Instrumental commitment propensity, which is derived from one's general expectations about the quality of the exchange with the organisation in terms of the expected benefits and rewards one might receive from it, and normative commitment propensity, which is a general moral obligation towards the organisation. The two forms developed after entry are instrumental commitment, which results from one's perception of the quality of the exchange between one's contributions and the rewards that one receives, and affective commitment, defined*

<sup>116</sup> See Cohen (2007), p. 2.

<sup>117</sup> Source: Cohen (2007), p.3.

*as a psychological attachment to the organisation demonstrated by identification with it, emotional involvement and a sense of belonging”<sup>118</sup>.*

This model solves the high correlation problem between affective and normative commitment<sup>119</sup>, which has led researchers to question the contribution of normative commitment<sup>120</sup>: *”The conceptualisation here argues that the high correlations occur because normative commitment is in fact a propensity to be committed that should be examined before entry into the organisation, not after entry”<sup>121</sup>.*

### **2.3.3 Affective and instrumental commitment are the chosen framework**

The framework that will be used for this study is the conceptualisation by Cohen (2007). Even though the framework of Meyer and Allen (1991) is most widely used in literature, discusses the most commitment aspects and is most agreed upon by other authors, Cohen (2007) addresses a fair point about the high correlation between affective and normative commitment. The use of all the sub types of commitment by Meyer and Allen (1991) are not necessary for this study and might even make it too broad. Their conceptualisation of attitudinal commitment is about social bonding and the desire to develop a stable relationship, which is not suitable to this study because it is focussing on ongoing relationships instead of on developing a relationship. With the second type of commitment from Meyer and Allen (1991), behavioural, the focus is on relational investments rather than on the relationship, plus the definition of behavioural is the same as instrumental. The only subdivision of Meyer and Allen (1991) that is applicable to this study is affective commitment because it is about affective and emotional attachment, but this type of commitment is also used in the four component commitment model of Cohen (2007). The categorisation of the psychological factors by Porter et al. (1974) seem like a suitable framework. However, the model of Cohen (2007) also has a psychological side in his model and is a more recent source than the one of Porter et al. (1974), which makes it more fitting to this study. The model of Cohen (2007) has two time frames; before entry to the organisation and after entry to the organisation. This study will only focus on after entry to the organisation because it is focusing on ongoing relationships and on commitment that already exists in a relationship. Furthermore, Cohen’s (2007) model has an inter-

---

<sup>118</sup> Cohen (2007), p. 2.

<sup>119</sup> See Cohen (2007), p. 3.

<sup>120</sup> See Meyer, Stanley, Herscovitch, and Topolnysky (2002) as cited according to Cohen (2007), p. 3.

<sup>121</sup> Cohen (2007), p.3.

organisational focus, whereas the other categorizations and models are intra-organisational and have a human-resource focus. Because this study is about buyer-supplier relationships, an inter-organisational focus is more suitable.



### 3 Hypotheses

This chapter will present the hypotheses derived from the literature review. All of the hypotheses will be tested based on the data gathered through online questionnaires which have been spread in purchasing departments and their suppliers. All the hypotheses are regarding the relationship between the independent variables trust and commitment on the dependent variable supplier satisfaction. In addition, they are concerned with the linkage of the buyer-supplier relationship.

For supplier satisfaction to be realised, the overall relationship between buyer-supplier needs to be sufficient. When a supplier has both satisfying and unsatisfying relationships with their buyers it can be expected that the supplier has a higher intention of reciprocate relational benefits to the relationships that provide a higher satisfaction<sup>122</sup>. Thus, the relationship needs to be satisfactory to establish mutual buyer-supplier satisfaction. Because previous research has already shown that the general trust and commitment are positively related to the overall relationship and supplier satisfaction, this study will look into the different types of trust and commitment because no previous research has been done on the effect of the different types on supplier satisfaction. Because the different types follow different logics, it might be possible that they have different outcome effects as well. The different types of trust and commitment will be used to measure the level of satisfaction. The types of trust that will be examined are trusting intention and trusting belief. Trusting intention is about the willingness of one party to rely or depend on the other party. Trusting belief is about whether one party believes that the other party is trustworthy in a given situation. It also involves the perception that the other party will act in favourable ways to the trustor<sup>123</sup>. The types of commitment that will be examined are affective commitment and instrumental commitment. Affective commitment is about an emotional attachment and identification with another party, whereas instrumental commitment is about the effectiveness and rewards of being in a relationship<sup>124</sup>. Because previous research has already shown a positive relationship of trust and commitment in general on supplier satisfaction, the first hypotheses of both trust and commitment will be base hypotheses, showing the main effects on supplier satisfaction. After the base

---

<sup>122</sup> See Pulles, Schiele, Veldman, and Hüttinger (2016), p.132.

<sup>123</sup> See Dickey et al. (2008).

<sup>124</sup> See Allen and Meyer (1990), p.2.

hypotheses, the different types of trust and commitment and a possible complementary/substitution effect will be discussed.

### **3.1 Indication of the effects of trusting belief and trusting intention on supplier satisfaction**

First, it is assumed that supplier satisfaction is influenced by trusting intention and trusting belief. Previous studies have already found a positive relationship between trust in general and satisfaction<sup>125</sup>. In addition, prior studies suggest that trusting belief leads to trusting intention; without trusting belief there would be no trusting intention<sup>126</sup>. Therefore, this study assumes that trusting intention will have a bigger influence on supplier satisfaction than trusting belief as it is the mediating variable. To actually measure whether trusting intention is the mediating variable and whether it has a direct influence on supplier satisfaction the following is hypothesised:

H1a: Trusting intention of the supplier has a positive effect on supplier satisfaction.

H1b: Trusting belief of the supplier has a positive effect on supplier satisfaction.

H1c: Trusting intention is the mediating variable between trusting belief and supplier satisfaction.

### **3.2 Indication of the effects of affective and instrumental commitment on supplier satisfaction**

Second, it is assumed that supplier satisfaction is influenced by affective commitment. A research by Bhattacharya, Rao, and Glynn (1995) states that the overall satisfaction is influenced by the *identification* of an individual with an organisation<sup>127</sup>. Because affective commitment is regarding an emotional connection and *identification* with another party, it shows that ‘identification of an individual to an organisation’ has the same interfaces as affective commitment. The research by Bhattacharya et al. (1995) shows that satisfaction is linked with the psychological attachment and loyal side of commitment. Because affective commitment is regarding the psychological and emotional attachment, it can thus be linked to overall satisfaction<sup>128</sup>. Additionally, affective commitment refers to the degree to which a person is psychologically bonded to an organisation on the basis of favourable

---

<sup>125</sup> See Dwyer, Schurr, and Oh (1987); Dirks and Ferrin (2002); Lin and Wang (2006), p.277; Xu et al. (2016), p.18.

<sup>126</sup> See Dwyer et al. (1987); Lin and Wang (2006), 277; Mayer et al. (1995), p.713.

<sup>127</sup> See Bhattacharya et al. (1995), p. 46-48.

<sup>128</sup> See Allen and Meyer (1990), p. 2.

feelings<sup>129</sup>. Lam, Shankar, Erramilli, and Murthy (2004) state that loyal customers could derive important personal and non-economic satisfactions from repeated social exchange with another party, and consequently find the overall experience more satisfying than disloyal customers<sup>130</sup>. If a person would be personally involved and enjoys being in the relationship, it can be expected that he or she is satisfied. A research by Johnson, Sivadas, and Garbarino (2008) in services marketing state that affective commitment is related to customer satisfaction<sup>131</sup>. Hence, when it is related to *customer* satisfaction it can be assumed that affective commitment can lead to *supplier* satisfaction as well. The statements above therefore support the assumption that affective commitment is linked to supplier satisfaction. The base hypothesis is:

H2: Affective commitment of the supplier has a positive effect on supplier satisfaction.

Third, it is assumed that supplier satisfaction is influenced by instrumental commitment. Satisfaction is achieved when expectations are fulfilled and a decision to continue a relationship is often based on an assessment of economic efficiency and fairness of past transactions, and thus fulfilment of expectations<sup>132</sup>. Furthermore, satisfaction with delivered products and services has been empirically documented as affecting the buyer's decision to continue a relationship and being satisfied<sup>133</sup>. Instrumental commitment results from one party's perception of the quality of the exchange between the party's contributions and rewards that one party receives<sup>134</sup>, in other words, the fulfilment of expectations of the exchange between two parties. Fulfilment of expectations has an effect on satisfaction, so it can be expected that instrumental commitment has an effect on supplier satisfaction as well. This leads to the following base hypothesis:

H3: Instrumental commitment of the supplier has a positive effect on supplier satisfaction.

Next, T. Becker et al. (1996) studied the effect of different types of commitment on performance. Previous research has found that commitment and performance are largely unrelated, but has not yet distinguished among individual targets and motives of commitment<sup>135</sup>. In their research they mentioned that affective commitment has a positive

---

<sup>129</sup> See Gruen, Summers, and Acito (2000), p.35.

<sup>130</sup> See Lam et al. (2004), p.296.

<sup>131</sup> See Johnson et al. (2008), p. 357.

<sup>132</sup> See Ring and Van de Ven (1994), p.

<sup>133</sup> See Anderson and Weitz (1992) as cited according to Selnes (1998), p. 306.

<sup>134</sup> See Cohen (2007), p.2.

<sup>135</sup> See T. Becker et al. (1996), p.464.

correlation of 0.15 with performance, and that continuance commitment had a negative correlation of -0.25 with performance<sup>136</sup>. This indicates that there can be a different effect of different types of commitment on *performance*, which could also be the case for *supplier satisfaction*. It would thus be interesting to see if either affective or instrumental commitment has a stronger effect.

A research by Meyer and Herscovitch (2001) views commitment as a multi-dimensional construct and studies its dimensionality, how it develops and how it affects behaviour. They propose the following: “*Commitment is distinguishable from exchange-based forms of motivation and from target-relevant attitudes, and can influence behaviour even in the absence of extrinsic motivation*”<sup>137</sup>. This statement displays that commitment can be distinguished from exchange-based forms of motivation and extrinsic motivation, which is what instrumental commitment is about. Indicating that affective commitment would have a bigger effect on supplier satisfaction than instrumental commitment. This assumption is supported by Meyer and Herscovitch (2001), who state that affective commitment correlates more strongly with any given outcome measure<sup>138</sup>. This is investigated by Meyer et al. (2002), who conducted a series of meta-analysis to examine the correlations between the three basic types of commitment (affective, normative and continuance) from Allen and Meyer (1990) on the measures turnover, absenteeism, performance and organisational behaviour. They found that the magnitude of the correlations differed; the strongest correlation was with affective commitment on all the studied measures<sup>139</sup>. Since their definition of affective commitment is the same as the definition of Cohen (2007), it can be translated to this study. A possible explanation for the stronger correlation of affective commitment is that when commitment is accompanied by a mindset of desire (like with affective commitment), the behavioural consequences of commitment are *perceived* by the individual to be broader than when commitment is accompanied by a mindset of perceived cost of obligation (instrumental commitment); “*when employees want to engage in a course of action because of attachment to, or identification with the target of the commitment (e.g. organisation), they are less sensitive to cues that potentially delimit the behaviour. Rather, their mindset directs attention to the intended outcome and thereby*

---

<sup>136</sup> See T. Becker et al. (1996), p.465.

<sup>137</sup> Meyer and Herscovitch (2001), p. 301.

<sup>138</sup> See Meyer and Herscovitch (2001), p. 311.

<sup>139</sup> See Meyer and Herscovitch (2001), p. 310, 311.

*allows them to regulate their activity to achieve that outcome*”<sup>140</sup>. In contrast to this, when employees pursue actions out of obligation or to avoid costs, they are more sensitive to conditions that define what is expected or required of them<sup>141</sup>. Hence, it can be expected that besides the studied measures from Meyer et al. (2002), the same applies to supplier satisfaction. It would make sense that the effect of instrumental commitment on supplier satisfaction might not be as positive as affective commitment, because instrumental commitment is more calculative in nature and a supplier might stay with the buying company for economical benefits, not because they ‘feel’ attached from a emotional standpoint. It is hypothesised that:

H4: Affective commitment has a bigger impact on supplier satisfaction than instrumental commitment.

The conceptual model below adds to the existing empirical research on the independent variables with the probable relationship with supplier satisfaction. Trust and commitment will be tested individually on the effect they have. As shown, trusting intention is seen as the mediating variable for the main effect of trusting belief.

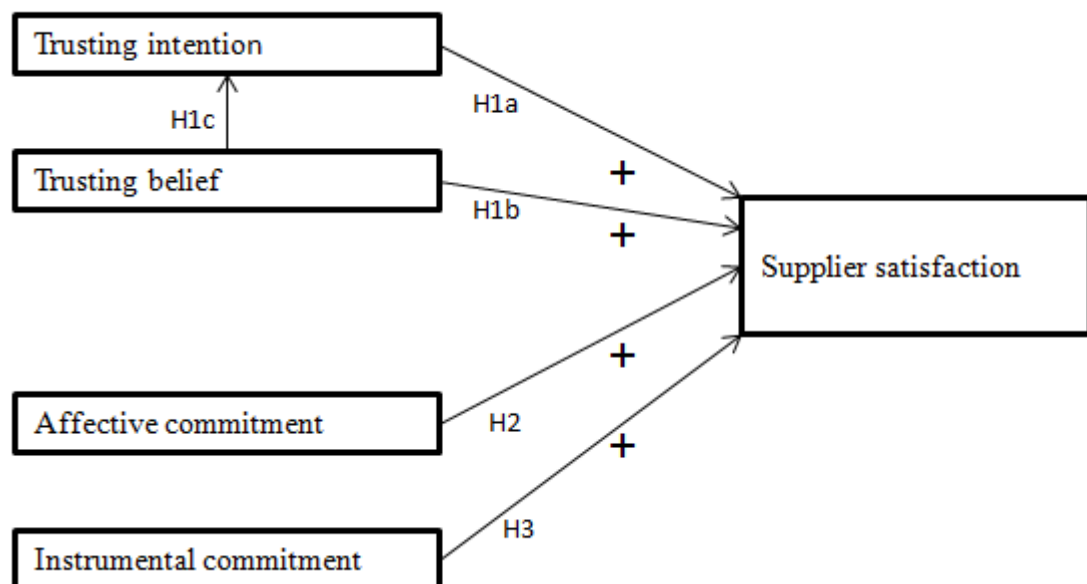


Figure 2 : Conceptual model.

<sup>140</sup> Meyer and Herscovitch (2001), p.312.

<sup>141</sup> See Meyer and Herscovitch (2001), p.311,312.

### 3.3 Indication of the substitution or complementary theory for trust and commitment

After the description of the main effects of the types of trust and commitment on supplier satisfaction, there seems to be a probable complementary or substitution effect for the different types of commitment: The research by T. Becker et al. (1996) shows that even though the different types of commitment used in their research have different effects on performance, a single type of commitment can reach the necessary level of performance and not both types of commitment need to be present. In addition, the meta-analysis of Allen and Meyer (1990) showed that the different types of commitment can affect the measures from that study all at once, but only one type has a stronger effect. Therefore, for this study it is interesting to examine whether only one of the commitment types needs to be present to reach the same level of supplier satisfaction (indicating a substitute effect), or if both types complement each other for the strongest effect.

An opposite view on this theory can be found in a study by Somers (2009). He compared commitment profiles to work outcomes such as turnover intentions and job search behaviour. The empirically-derived commitment profiles he used were: Highly committed, affective- normative dominant, continuance- normative dominant, continuance dominant and uncommitted<sup>142</sup>. Most commitment studies have focussed on testing the antecedents and consequences, in other words, studies are characterised by an emphasis on estimating the level of relationship between each form of commitment and hypothesised antecedents<sup>143</sup>. What is noticeable in the study of Somers (2009) is that he is one of the few who examines the combined influence of five commitment types, to identify patterns of commitment that are either beneficial or damaging to organisations<sup>144</sup>. Findings from this study combined with the few other available (by Gellatly, Meyer, and Luchak (2006) and Wasti (2005)) “consistently indicate that the combined influence of commitment on outcome variables is greater than any given form”<sup>145</sup>. Thus implying that when affective and instrumental commitment are combined it will have a bigger influence on the outcome variable (supplier satisfaction) than when one of the commitment types is present.

---

<sup>142</sup> See Somers (2009), p.75.

<sup>143</sup> See Somers (2009), p.75.

<sup>144</sup> See Somers (2009), p.76.

<sup>145</sup> Somers (2009), p.80.

As can be read in the previous sections, there are two opposite views in literature regarding a complementary or substitution effect on one outcome variable. On one hand, the research by T. Becker et al. (1996) states that the types of commitment can substitute each other, to still reach the same level. On the other hand, the research by Somers (2009) explains that when the types of commitment are combined it will have a bigger influence than when only one type is present. To examine which of those studies is more in line with this study, and whether the complementary or substitution effect is correct, the two possible theories are as follows; both affective and instrumental commitment are necessary conditions for supplier satisfaction, or either affective or instrumental commitment is sufficient enough for the same level of supplier satisfaction. In line with the hypotheses regarding trusting intention and commitment, this study will follow the logic by Somers (2009) who states that the types combined will have a bigger influence than when only one type is present. Therefore, the hypothesis is as following:

H5: Affective and instrumental commitment combined strengthen each other in their effect on supplier satisfaction.

Trusting intention is the mediating variable and is presumed to have a direct effect on supplier satisfaction, so it is not necessary to examine this theory for the two types of trust. However, it is interesting to examine whether there is a complementary effect for trust *and* commitment. The research by T. Becker et al. (1996) showed that the different types of commitment have different effects on performance, but only one of the commitment types is necessary to reach the same level of performance. Following the same logic, is it possible that either trust or commitment can reach a sufficient level of supplier satisfaction (instead of performance) or do they complement each other for the strongest effect? On the contrary, a study by Somers (2009) stated that the combined influence of commitment is greater with any given form<sup>146</sup>. This could also be the case for trust and commitment, when combined it would have a greater influence than separately.

Both affective and instrumental commitment are assumed to have a positive effect on supplier satisfaction. Therefore, affective and instrumental commitment will be combined in one variable 'commitment' for this part of the hypothesis. Regarding trust; because trusting intention is the mediating variable and therefore has a direct influence on supplier satisfaction, only trusting intention will be taken into account for this part of the

---

<sup>146</sup> See Somers (2009), p.80.

hypothesis. Hence, the complementary effect will be examined specifically for trusting intention and commitment. This study will follow the logic explained by Somers (2009), who stated that the combined influence of commitment is greater with any given form<sup>147</sup>; trusting intention and commitment will more likely have a greater influence combined than when separate. Additionally, it makes more sense that with any two factors combined the outcome on supplier satisfaction will always be greater than when the two factors appear separately. This leads to the following hypothesis:

H6: Trusting intention and commitment combined strengthen each other in their effect on supplier satisfaction.

Figure 3 on the next page shows the complementary and substitution theory for trust and commitment. When both affective and instrumental commitment are high it results in high satisfaction. When both commitment types are low, it results in a low satisfaction. However, when only one of the types is high and the other one is low, it is possible that it can result in a complementary or substitution effect. The same applies for trusting intention and commitment.

---

<sup>147</sup> See Somers (2009), p.80.



<b>Affective commitment</b>	high	Substitution/ complementary effect	High satisfaction
	low	Low satisfaction	Substitution/ complementary effect
		<b>Instrumental commitment</b>	
		low	high

<b>Commitment</b>	high	Substitution/ complementary effect	High satisfaction
	low	Low satisfaction	Substitution/ complementary effect
		<b>Trusting intention</b>	
		low	high

Figure 3: Visual representation of hypothesis 5 and 6.

## **4 Types of descriptive and explorative research methods to gain new insights: Steps of the research**

### **4.1 Literature exploration from academic journals**

For this study it is important to have a good understanding of the theory behind the main topics. The reason for this literature research is to summarise the existing literature on these topics to provide a good background and a solid base for empirical research. Recent studies and articles have helped with the development of a good search strategy. The articles of Hüttinger et al. (2012) and Morgan and Hunt (1994) were used as a base for supplier satisfaction. These articles provided a literature review about supplier satisfaction, which in turn provided other literature about this concept. Furthermore, these articles provided base knowledge on the supplier satisfaction antecedents and were used as a starting point for further literature research on the topics trust and commitment. Specifically for the concept trust, the article by Mayer et al. (1995) provided an extensive literature review which was the base for further trust research. The key words that were used and theories that are relevant to this study are build around supplier satisfaction and are as following:

- Supplier satisfaction
- Commitment
- Instrumental commitment and affective commitment
- Trust
- Trusting intention and trusting belief

Using these search terms, an analysis of theory and literature has been done in a structured manner in the Scopus database. The articles used for this study have been assessed based on the title and abstract. Besides the Scopus-database, other databases were used as well: Emerald, JSTOR and Web of Science. To identify more literature and studies regarding inter-organisational relationships, the above mentioned search terms in combination with terms such as ‘inter-organisational relationship’ and ‘buyer-supplier relationship’ have been used. Furthermore, backward and forward reference searching was used in finding other articles. This searching style involves examining the references cited in an article and when a researcher identifies articles that cite a particular article in a publication. The literature used is published in leading supply chain management journals, purchasing

journals or similar relevant journals. The literature found on these concepts have been used to develop the hypotheses of the different types of trust and commitment.

#### **4.2 Survey design and other methods used**

To test the hypothesis of this study a questionnaire has been made. The questionnaire is not only made for this study but will be used by more scholars. It consists of questions regarding supplier satisfaction, preferred customer, perception differences, relational aspects, other influencers (like trust and commitment) and general information. The parts about supplier satisfaction are built on the research done by Hüttinger et al. (2014) and F. G. Vos et al. (2016). The questions about commitment are divided in affective and instrumental commitment and are mostly from research done by Cohen (2007). The questions about trust are divided in trusting intention and trusting belief, and are derived from research from McKnight, Choudhury, and Kacmar (2002) and Hüttinger et al. (2012). Most of the questions are tested based on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Some questions have an open answering field, for example questions regarding the industry of the respondent or the length of the relationship. Some of the measures in the questionnaire have not been used for this study but have been added because of academic purposes and to have a larger data set to analyse. Besides the questions for the dependent and independent variables of this study, general questions about characteristics of the supplier and relational characteristics are added to the questionnaire. The questionnaire has been filled in anonymously to prevent bias, which made it possible to examine the different opinions from the suppliers. Appendix A provides an overview of all relevant measures and questions.

### **4.3 Data collection method and respondent specification**

The quantitative data for this study is collected in collaboration with the purchasing department of company X. Company X is a Swedish company that provides radiation therapy, radio surgery, related equipment and clinical management for the treatment of cancer. Over 6000 hospitals worldwide rely on the technology provided by company X. The headquarters of company X is in Stockholm, but the establishment where this study is completed is situated in Veenendaal, Gelderland<sup>148</sup>. Contact information of 40 suppliers was provided by the purchasing department of company X. Besides the suppliers provided by company X, another researcher from the University of Twente with the same research objectives sent out the questionnaire to 175 suppliers provided by him through buying departments of other organisations, which comes to a total of 215 possible respondents.

In November 2017 the suppliers have been invited to join this study and fill in the questionnaire as mentioned in the previous paragraph. In the next four weeks, 3 reminders were sent by email and suppliers with known phone numbers were called as a reminder. The purchasing department from company X reminded the suppliers as well when meeting with them at their company. There was a low response rate from the suppliers of company X; 23 partial questionnaires were returned of which only 7 completed. A second round of data collection was done in the beginning of January because of the low response rate. This did not yield much more response; only 4 more fully completed questionnaires were returned. It is assumed that the length of the questionnaire might be one of the reasons for the low response rate, especially because the initial round of data collecting started at the end of November. December is a busy month for many organisations due to the holiday season and other work that has to be completed before the end of the year. This might be a reason why people were not keen on answering a thirty-minute questionnaire besides their busy work schedule. From the remaining 175 suppliers the other researcher from the University of Twente sent out, 78 were completed. This together with the responses from company X provided for 89 usable responses for further analysis, which is a response rate of 41%. There is no agreed norm for response rates, however the common rate is usually between 15% and 25%<sup>149</sup>, so the response rate of 41% is above average. The answers of the suppliers were made anonymous before analysis. Table 5 provides an overview of the main characteristics of the respondents.

---

<sup>148</sup> See company X (2017).

<sup>149</sup> See F. G. Vos et al. (2016), 4621.

Number of employees	
< 10	5,7%
10 - 50	41,8%
51- 250	29,1%
251 - 1000	13,5%
> 1000	7,7%
Not specified	2,2%

Length of relationship	
< 5 years	10,2%
5- 10 years	28,6%
11- 20 years	38,9%
> 20 years	20,5%
Not specified	1,8%

Industry of respondent	
Primary sector (Basic industry, e.g. mining & farming)	2,3 %
Secondary sector (Industrial sector, e.g. industry, energy utilities, construction)	65,5%
Tertiary sector (Service sector, e.g. logistics, retail, cleaning, repair, insurance)	17,2
Quaternary sector (Information sector, e.g. tax consultant, IT, engineers, lawyers)	3,4%
Unknown	11,5%

Table 5: Characteristics of the sample

#### 4.4 Statistical data analysis method

The data from the questionnaire is analysed with the use of Partial Least Squares (PLS) path modelling, from the SmartPLS 3.0 software<sup>150</sup>. This method allows testing the whole models (in which a variable is both independent and dependent) consisting of cause-effect relationships with latent variables. SmartPLS 3 was chosen over other SEM software because Smart PLS 3 is able to estimate reflective and formative constructs and is flexible in terms of data requirements. In addition, the variables used as indicators for PLS path modelling, the data matrix contains a weighting vector of the observation and responses, and grouping variables<sup>151</sup>. Besides SmartPLS 3, the software program SPSS from IBM is used to edit, read and visualize data. The questions and response scales can be added in the program as well as different variables. This results in a great variety of analysable data where relationships between different variables can be drawn. SPSS has also been used to perform several tests to assess the reliability and validity<sup>152</sup>.

<sup>150</sup> See Ringle, Wende, and Becker (2015).

<sup>151</sup> See Henseler, Hubona, and Ray (2016), p.566.

<sup>152</sup> See IBM Corporation (2014).

#### 4.5 Assessment of outliers, validity and reliability

Several types of bias could be present while performing this study. Selection and exclusion bias might occur while selecting the suppliers. This was prevented by letting the purchasing manager select the suppliers upfront rather than the researcher of this study individually selecting the suppliers. In a first analysis of the data, outliers were identified by using Cook's distance. Cook's distance is used to assess the influence of single observations on a dataset and to find influential outliers that might negatively affect the regression model<sup>153</sup>. A rule of thumb is that observations with a Cook's distance any point above  $4/N$ , where  $N$  is the number of observations, is a possible outlier<sup>154</sup>. Table 12 in appendix B shows that the highest observation is 0.551. Dividing  $4/N = 4/89 = 0.0459$ , which is lower than the highest observation of 0.551 indicating that this is an outlier. Figure 6 in appendix B shows this outlier more clearly, hence this outlier is deleted. Besides the Cook's distance a Mahalanobis was conducted to see whether there were more outliers. The Mahalanobis distance is the distance between two points in multivariate space and measures distance relative to the base or central points, which can be seen as an overall mean for multivariate data. It is most commonly used to find multivariate outliers which indicate unusual combinations of two or more variables<sup>155</sup>. A rule of thumb is that every observation below 0.001 is an outlier. After calculating there was one observation lower than 0.001, as can be seen Figure 7 in the same appendix B. After deleting both outliers the total number of observations became 87.

A factor analysis was performed to see whether the used items indeed measure a certain construct. The factor loadings of the components were retained with a principal component analysis (PCA) and the unique variance of the items on both their intended components<sup>156</sup>. The PCA is calculated with the default options for both Varimax and Oblique Delta = 0 rotations. The individual loadings need to be 0.55<sup>157</sup>. As can be seen in the rotation matrix in appendix C the loadings of the items on the intended factors are higher than 0.55 for supplier satisfaction, instrumental commitment and trusting belief. However, not all the results for affective commitment and trusting intention are higher than 0.55 implying a limitation that the loadings of these items are placed in the same factor loadings of other

---

<sup>153</sup> See Kim and Storer (1996), p.691.

<sup>154</sup> See R. D. Cook (1977), p.16.

<sup>155</sup> See Egan and Morgan (1998), p. 2372.

<sup>156</sup> See Petter, Straub, and Rai (2007), p.641.

<sup>157</sup> See Tabachnick and Fidell (2007), p. 45.

items, meaning that the questions or definitions of affective commitment and trusting intention might overlap. However, because all the questions used in the questionnaire are derived from other validated research, it is decided to continue with these items.

Next, to analyse whether the results are reliable and valid multiple tests were used. Cronbach's Alpha can be used to test internal consistency of the data. Nunnally (1978) recommends a threshold of 0.70<sup>158</sup>. The reliability for trusting intention, instrumental commitment and commitment total were below 0,70. However, after deleting a few questions they became reliable, except for the construct instrumental commitment. To still ensure the reliability of all the constructs the Cronbach's Alpha and the composite reliability were tested in SmartPLS. Table 6 shows that every individual indicator, including instrumental commitment, has a loading higher than 0.7 and thus are considered reliable.

<b>Construct</b>	<b>Mean</b>	<b>SD</b>	<b>Cronbach's Alpha</b>	<b>Composite reliability</b>	<b>Convergent validity (AVE)</b>
Supplier satisfaction (SS)	4.38	0.61	0.846	0.907	0.764
Affective commitment (AC)	3.87	0.56	0.760	0.825	0.492
Instrumental commitment (IC)	3.46	1.13	1.000	1.000	1.000
Trusting belief (TB)	4.05	0.66	0.883	0.919	0.739
Trusting intention (TI)	4.11	0.71	0.859	0.934	0.876
Commitment total (CT)	3.80	0.50	0.733	0.785	0.501

Table 6: Reliability and validity.

The validity has to be assessed to ensure that factors are free from systematic measurement error. This can be tested in two ways: By measuring convergent validity (to assess unidimensionality within factors) and discriminant validity (to assess statistical difference between theoretically different factors)<sup>159</sup>. The Average Variance Extracted (AVE) can be used to test the convergent validity. It is a test which is equal to the proportion of explained variance test in factor analysis<sup>160</sup>. Fornell and Larcker (1981) write that the AVE value should be between zero and one, but above 0.50<sup>161</sup>. The AVE is calculated in SmartPLS, the outcome is presented in Table 6. All the constructs have a high enough AVE except affective commitment. However, it is decided to continue with the construct affective

<sup>158</sup> See Nunnally (1978), p. 23.

<sup>159</sup> See Henseler et al. (2016), p.11.

<sup>160</sup> See Wegereef (2017), p.17.

<sup>161</sup> See Fornell and Larcker (1981), p.42.

commitment because Fornell and Larcker (1981) note that if AVE is less than 0.5, but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate<sup>162</sup>. Because the AVE of affective commitment is very close to 0.5 and the composite reliability is 0.825, the AVE can still be accepted. To assess the discriminant validity the method by Fornell and Larcker (1981) can be used. This method states that the square root of the AVE in each latent variable has to be larger than other correlation values among these variables<sup>163</sup>. Henseler, Ringle, and Sarstedt (2015) do not agree with this approach. They state that it does not “*reliably detect the lack of discriminant validity in common research situations*”<sup>164</sup>. They propose a different approach; the heterotrait-monotrait ratio (HTMT) of the correlations between the latent variables. It can be used in two ways, namely as a criterion or as a statistical test<sup>165</sup>. Using the HTMT ratio as criteria, the threshold should either be below 0.85 or 0.90<sup>166</sup>. Table 14 in appendix C shows that all scores are lower than the threshold, so this result supports discriminant validity. Both convergent and discriminant validity are established. Lastly, the model fit can be assessed by looking at the standardised root mean square residual (SRMR). A score below 0.10 is seen as an adequate threshold, but a score below 0.08 is even better<sup>167</sup>. The SRMR has a score of 0.093, so the model fit can be accepted.

---

<sup>162</sup> See Fornell and Larcker (1981), p. 42-50.

<sup>163</sup> See Fornell and Larcker (1981), p.42.

<sup>164</sup> Henseler et al. (2015), p.115.

<sup>165</sup> See Henseler et al. (2015), p.121.

<sup>166</sup> See Henseler et al. (2015), p.121.

<sup>167</sup> See Henseler et al. (2015), as cited according to F. G. Vos et al. (2016), p.4617.



## **5 Results show that trusting belief and commitment have a positive significant effect on supplier satisfaction**

In order to gain insights into the relationships between the independent variables on supplier satisfaction and to answer the hypothesis, a path model was formed in SmartPLS. This model tests the effects of affective commitment, instrumental commitment, commitment total, trusting belief and trusting intention on supplier satisfaction. As determined in the previous chapter the reliability and validity of the variables have been confirmed as sufficient. The standard settings for the path model were used; the model is bootstrapped with 5.000 subsamples and tested on a significance level of 0.05, with a one-tailed test type. This is done because the coefficient can have a positive or negative sign<sup>168</sup>. Previous studies found a significant influence of the length of the relationship on performance in buyer-supplier relationships<sup>169</sup>, thus this is included as a control measure. The outcomes are presented in figure 4 on the next page. H1a and H1c can be rejected; trusting intention is not the mediating variable between trusting belief and supplier satisfaction. Even though trusting belief has a positive significant effect towards trusting intention, trusting intention does not have a significant effect on supplier satisfaction which makes it impossible to be the mediating variable. Next, what is noticeable is that only trusting belief (Beta of 0.54) and commitment total (Beta of 0.40) have a positive significant on supplier satisfaction, indicating that H1b can be accepted. The other variables all show a positive relationship, but none of them are significant. Based on this data there is no support for H2 and H3 because affective commitment and instrumental commitment on itself show no significant relation with supplier satisfaction. This immediately rejects H4 as well, because affective commitment cannot have a bigger impact when by itself it does not even have an impact. However, combining the two types of commitment does result in a positive significant effect on supplier satisfaction and thus supports H5, indicating that there is a complementary effect and not a substitution effect. H6 can be rejected as well because trusting intention does not have a significant relationship with supplier satisfaction, so there can be no complementary effect together with commitment total on supplier satisfaction. The screenshot of the complete path model with accompanying values and loadings can be found in appendix D.

---

<sup>168</sup> See Kock (2015), p. 1.

<sup>169</sup> See Nagati and Rebolledo (2013), p.183.

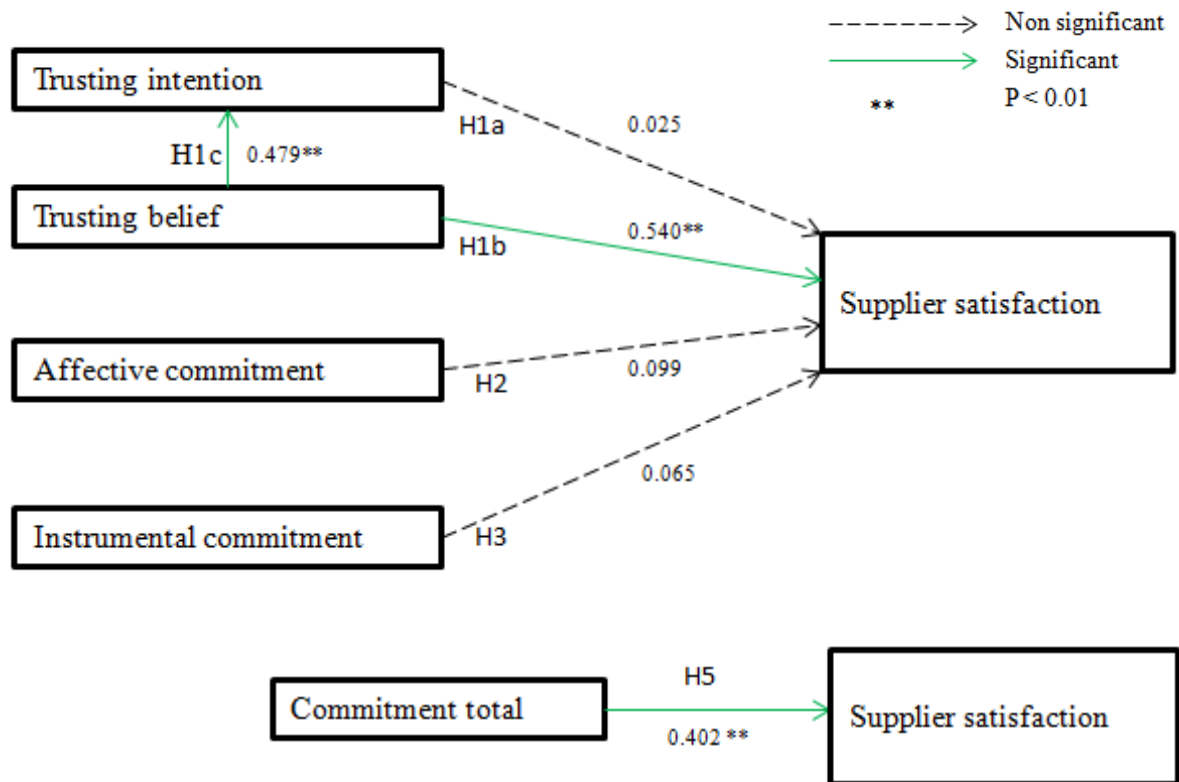


Figure 4: Results of PLS path modelling.

Furthermore, it was interesting to know whether the different supplying companies that answered the questionnaire scored different on the dependent variable supplier satisfaction. Therefore, dummy coding was carried out for the different companies before performing another regression analysis. Dummy coding is a way of incorporating nominal variables into a regression analysis and it turns categories into something a regression can treat as having a high and low score. This allows the regression to compare the different categories rather than expecting each unit to correspond with an increase<sup>170</sup>. The companies who participated in this research are put into different categories to see whether they have a different influence on supplier satisfaction. The results of the dummy coding can be found in Appendix E, none of them show a significant effect.

After the outcomes from SmartPLS and the dummy coding a hierarchical regression analysis was performed in SPSS and is presented in Table 7. The model was tested in three steps. The first step regressed the control variables (length of relationship and the dummy variables) on supplier satisfaction. They appear to have no significant effect. The second step added the explanatory variables (affective commitment, instrumental commitment, trusting intention and trusting belief), where only trusting belief revealed a significant

<sup>170</sup> See IBM- Corporation (2014), p.

effect. The third step in the regression was performed to see whether the substitution/complementary effect exists for commitment and trusting intention. This showed no significant effects. The model summary of the hierarchical regression and the results of linear regression with the results combined are presented in appendix E. The SPSS regression analysis supports the overall outcomes from SmartPLS.

Variables	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
<b>Step 1</b>						
(Constant)	4.334**	.169	1.626**	.492	2.167*	1.179
Length of relationship	.001	.003	.003	.002	.003	.002
Dummy company 1	-.153	.160	-.067	.132	-.070	.129
Dummy company 2	.024	.206	-.085	.180	-.091	.177
Dummy company 3	.157	.206	.079	.167	.025	.166
<b>Step 2</b>						
Affective commitment (AC)			.060	.113	-.427	.276
Instrumental commitment (IC)			.019	.052	-.073	.070
Trusting intention (TI)			.078	.103	.094	.092
Trusting belief (TB)			.494**	.103	.874**	.240
<b>Step 3</b>						
Commitment total <sup>2</sup> (CT)					.491*	.196
TP <sup>2</sup>					.076	.074
CT *TI					-.495	.195
Adjusted R <sup>2</sup>	.001		.389		.439	
F	.057		10.165		7.522	

Notes: \* = p<0.05; \*\* = p<0.01; dependent variable is supplier satisfaction; B = unstandardised regression coefficient; SE = Standard Error.

Table 7: Results of the hierarchical regression.

Because of the non-significant results regarding affective commitment, instrumental commitment and trusting intention, it has no use to perform any further analysis with those variables. Even though it was not presented in the hypotheses a follow-up analysis will be performed to see whether a complementary or substitute effect exists for commitment and trusting belief (instead of trusting intention), since they are the only variables with significant effects on supplier satisfaction. Therefore, a polynomial regression was performed in SPSS. This type of analysis helps to understand the impact of composite constructs on a dependent variable and to test higher-order effects without losing statistical information<sup>171</sup>. To use the polynomial regression the discrepancy between the variables needs to be assessed. First, the responses on the variables commitment and trusting belief

<sup>171</sup> See Venkatesh and Goyal (2010); Lee, Woo, and Joshi (2017) as cited according to F. G. S. Vos (2017), p. 124.

were standardised, where after they were coded into different groups. According to Shanock, Baran, Gentry, Pattison, and Heggestad (2010), when the difference of standardised values is above 0.5, below -0.5 and between -0.49 and 0.49 it proves independence of the variables. A rule of thumb is that all groups should have a size of at least 10%<sup>172</sup>. Table 8 shows that both commitment and trusting belief have a sufficient distribution of cases among the dataset.

Groups	Frequency	Percent
0	23	26.4
1	40	46.0
2	24	27.6
Total	87	100.0

Table 8: Discrepancy analysis of the variables commitment and trusting belief.

The outcome of the polynomial regression is presented in Table 9. It revealed a significant effect for the slope along trusting belief and commitment, meaning that a higher trusting belief and a higher commitment results in a higher supplier satisfaction; indicating a complementary effect. Additionally, Figure 5 shows that trusting belief has a bigger influence than commitment on supplier satisfaction, because trusting belief on its own can cause a high supplier satisfaction whereas commitment on its own does not achieve much. The polynomial regression supports the outcomes from SmartPLS and SPSS because they also show a higher correlation between trusting belief and supplier satisfaction than commitment.

Effects	Coefficient	Standard error	Test Stat (t)	P-value
a1: Slope along $x = y$	0.89	0.33	2.719	0.008**
a2: Curvature on $x = y$	-0.14	0.18	-0.741	0.460
a3: Slope along $x = -y$	0.77	0.46	1.1655	0.102
a4: Curvature on $x = -y$	- 0.50	0.29	-1.710	0.091

Notes: \* =  $p < 0.05$ ; \*\* =  $p < 0.01$ ; X indicates trusting belief and Y indicates commitment; table based on Shanock et al. (2010).

Table 9: Polynomial analysis of slopes and curvatures for effects of commitment and trusting belief.

<sup>172</sup> See Shanock et al. (2010), as cited according to F. G. S. Vos (2017), p.125.

### Complimentary or substitution effect of commitment and trusting belief on supplier satisfaction

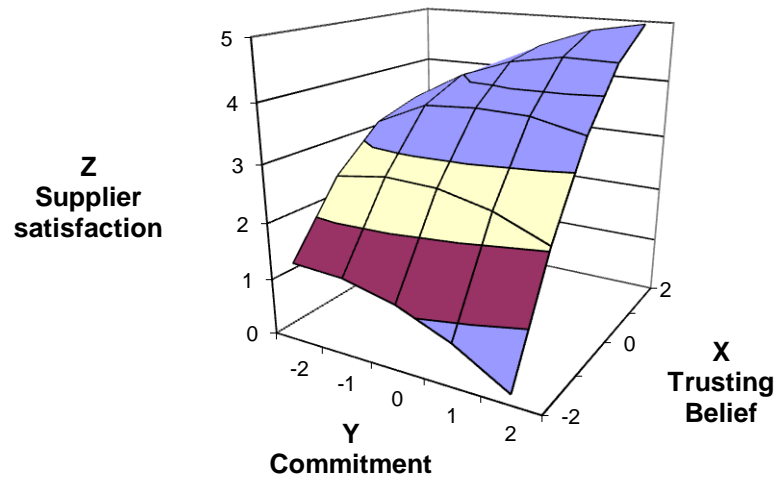


Figure 5: Surface analysis of trusting belief and commitment on supplier satisfaction.

## **6 Discussion and implications of this research**

### **6.1 Trusting belief is the most important variable, trusting intention seems to have no effect**

The main objective of this study was to explore the effects of the different types of trust and commitment on supplier satisfaction. It is found that only trusting belief and the commitment types combined have an effect on supplier satisfaction. Because previous research already found a direct link between trust, commitment and supplier satisfaction, this finding was expected. However, the sub-types of commitment (affective and instrumental) have no individual effect on supplier satisfaction. A possible explanation for this could be that the suppliers do not have an emotional attachment with the employees of the buying organisation. The questions from the questionnaire regarding affective commitment are about identification and emotional connection with the buying organisation, which is what affective commitment is about. An example is the question: “I have a personal and emotional attachment with the buyer.” It could thus be the case that the suppliers only have a business connection instead of an emotional connection. The assumption that affective commitment has a bigger impact than instrumental commitment on supplier satisfaction is thus not correct; because both types separately do not have a significant effect on supplier satisfaction, affective commitment cannot have a bigger impact. This is an opposing view from previous research, who state that affective commitment correlates more strongly with any given outcome measure<sup>173</sup>. The two commitment types have no *individual* effect, but combined they do have a significant effect indicating that both the types of commitment need to be present to have a positive effect on supplier satisfaction. As mentioned in paragraph 3.3 opposite views on this subject was found in literature. The outcome of this study supports previous research by Somers (2009), Gellatly et al. (2006) and Wasti (2005) who all consistently stated that the combined influence of commitment on outcome variables is greater than when one type of commitment is present<sup>174</sup>, but disagrees with previous research done by H. S. Becker (1960) and Allen and Meyer (1990) who declare that the types can substitute each other.

---

<sup>173</sup> See Meyer and Herscovitch (2001), p.311.

<sup>174</sup> See Somers (2009), p.75.

Therefore, according to this study a complementary effect exists for the different types of commitment and not a substitute effect.

The finding regarding trusting belief and trusting intention is more outstanding. Previous research suggest that trusting belief leads to trusting intention; without trusting belief there would be no trusting intention<sup>175</sup>. Therefore, it was expected that trusting intention was the mediating variable between trusting belief and supplier satisfaction. The PLS path model indeed shows that trusting belief leads to trusting intention, but is also shows that trusting belief has a positive significant effect on supplier satisfaction and trusting intention does not. This indicates that trusting intention is not a mediating variable between trusting belief and supplier satisfaction, because it does not have an individual significant effect. A possible explanation for this can be found in the nature of the types of trust. Trusting belief is about whether one actually *believes* that the other party is trustworthy and is considered the core of trust<sup>176</sup>, while trusting intention is more calculative in nature and is regarding the *willingness* of one party to rely on another party based on the notion that the other party will not exploit this vulnerability<sup>177</sup>. The reason that trusting intention does not have a significant effect on supplier satisfaction could be because it is based on willing to trust, instead of believing there is trust like with trusting belief. It becomes clearer when looking at the sub-components of trusting intention and trusting belief in Table 10, this is also explained more in detail in paragraph 2.2.2.

Trusting intention <sup>178</sup>	Trusting belief <sup>179</sup>
<ul style="list-style-type: none"> <li>- Potential negative consequences</li> <li>- Dependence</li> <li>- Feelings of security</li> <li>- Situation specific content</li> <li>- Lack of reliance of control</li> </ul>	<ul style="list-style-type: none"> <li>- Benevolence</li> <li>- Honesty</li> <li>- Competence</li> <li>- Predictability</li> </ul>

Table 10: Sub-components of trusting intention and trusting belief.

<sup>175</sup> See Dwyer et al. (1987); Mayer et al. (1995), p.713; Lin and Wang (2006), p.277.

<sup>176</sup> See McKnight and Chervany (1996), p. 27.

<sup>177</sup> See McKnight and Chervany (1996), p. 27; Mayer et al. (1995), p.711.

<sup>178</sup> See McKnight and Chervany (1996), p. 27-30.

<sup>179</sup> See McKnight and Chervany (1996), p. 33,34.

The sub-components of trusting intention are more about the trusting party, for example with ‘feelings of security’; the trusting party has to feel secure or he/she will not trust the other party. The sub-components of trusting belief are more about the relationship between the two trusting parties. For example ‘honesty’; both parties have to be honest for each of them to believe they can trust the other party. The following definition of supplier satisfaction highlight the importance of the relationship and fairness between buyer and supplier: *“The feeling of equity with the relationship no matter what power imbalance exists”*<sup>180</sup> and *“supplier satisfaction is a supplier’s feeling of fairness with regard to buyer’s incentives and supplier’s contributions”*<sup>181</sup>. Because supplier satisfaction is really about the relationship between the two parties, it can be linked to the sub-components of trusting belief more than the sub-components of trusting intention, as they are more about the belief in the *relationship*.

Additionally, the measurement of the questionnaire questions of trusting intention and trusting belief do not match the definitions in the literature. The measurement of trusting belief should be more about the trust in general, while trusting intention should be about the willingness to trust. In hindsight this is different than what was measured; the questions about trusting belief were close to the general trust measure and the questions about trusting intention were more regarding dependency and capability. An example is the following question: ‘Overall, the other party is capable and proficient’. This question measures capabilities, not trusting intention. All the questions in the questionnaire can be found in appendix A. This indicates that the questions for trusting intention do not measure what was supposed to be measured and could thus be another cause for why trusting intention does not have a significant effect on supplier satisfaction. The division and measurement of trusting intention and trusting belief needs more exploration and will be further discussed in the future research possibilities.

Furthermore, beforehand it was expected that there might be a complementary or substitute effect for trusting intention and commitment, after the analysis it became clear that nor a complementary nor a substitute effect exists for the two variables. Hence, it was decided to test whether such an effect exists between trusting belief and commitment since those two variables were the only ones with a significant effect on supplier satisfaction. The polynomial regression revealed a significant effect for the slope along trusting belief and

---

<sup>180</sup> Benton and Maloni (2005), p.5.

<sup>181</sup> Essig and Amann (2009), p. 104.



commitment, meaning that trusting belief and commitment have a complementary effect on supplier satisfaction. It also found that trusting belief has a bigger effect than commitment on the complementary effect. No further substitute effect has been found.

## **6.2 Implications: Focus on the components of trusting belief and combine the commitment types for a complementary effect**

First, previous research shows that the general types of trust and commitment impact a relationship, and the relationship in turn has an impact on supplier satisfaction. However, no previous research has been done about the different types of trust and commitment, if and/or how they follow different logics, and their effect on supplier satisfaction. This study demonstrates it is possible for the different types to have a different effect on supplier satisfaction and the importance of the different types of trust and commitment on supplier satisfaction, instead of providing only the general impact of trust and commitment as previous research did.

Second, this study found that the two types of commitment (affective and instrumental) separately do not have a positive effect, only when the two are combined they show a positive and complementary effect on supplier satisfaction. Moreover, when only one-sided commitment, or one type of commitment is present in the relationship this could cause problems for the supplier satisfaction and in turn the competitive advantage of the organisation. For any buying department it is thus important to know the current status of the commitment level between them and the supplier. This can be tested at supplier-days, meetings, or short questionnaires. To get the most honest response from the suppliers a short face-to-face interview would be a good option, since the suppliers will have to respond immediately without thinking about the desired response, which can be done when people take their time filling in an questionnaire. Third, this study found that trusting belief has a positive effect on supplier satisfaction and trusting intention does not. This indicates the importance of knowing the current status of trust between an organisation and their suppliers, but also to know how this trust is constructed to know what type of trust is present in the relationship. The difference between the two types and sub-factors of trust might not seem considerable, but taking into account that only trusting belief has a positive effect it is an important aspect to be aware of. Organisations should focus on the components of trusting belief (honesty, benevolence, competence and predictability) and less on the components of trusting intention (potential negative consequences, dependence,

feelings of security, situation specific content, lack of reliance of control). So in buying departments the relational softer side of trust is more important than the capabilities and depending trust. For example, a buyer should come across and communicate as honest and predictive (trusting belief) towards the suppliers and not as someone who is controlling and dependent (trusting intention) in order to have a positive effect on the supplier satisfaction. Lastly, this study found that trusting belief and commitment complement each other. After the buyers are more aware of what they entail and how they affect the supplier satisfaction, it can be beneficial to develop both trusting belief and the two commitment types to ensure favourable inter-organisational relationships.

While the practical implications described above refer to actions that can be taken by organisations, theoretical implications of this study apply to the impact on the literature. This study provides more data and insight in the concepts of supplier satisfaction and the different types of trust and commitment. The findings of this study show that there indeed are different effects following the different logics of the types of trust and commitment on supplier satisfaction. Hence, for the other types of trust and commitment that were not discussed in this study there will probably be different effects on an outcome variable as well.

Further, this study investigated the substitution or complementary effect where only one type needs to be present to achieve the same level of supplier satisfaction or where two separate types complement each other. Two opposing views were found in literature on this theory. This study only found a complementary effect and is in agreement with the research done by Somers (2009), but is disagreeing with the research by T. Becker et al. (1996) who proposes the substitution effect. Ergo, ambiguity among researchers exists and the theory should be further examined. Lastly, this study shows that value of replication and extending of previous research by displaying it in a different business context.

### **6.3 Limitations and future research: Better measurements for trusting intention and trusting belief**

The first and most important limitation is the low response rate from the contacted suppliers. A few respondents made remarks regarding the length of the questionnaire. In addition, the first round of data collection was during the holiday season in December, which is known as a busy time for many organisations. This could be a reason why the response rate was lower than expected. Because the first round of data collection yielded

very few answers, a second round was done in the beginning of January. Unfortunately this did not result in many more responses. While the sample size together with the contacted suppliers from another researcher from the University of Twente may have reached the accepted threshold, the data received from usable questionnaires may be too low to generalise the findings to the entire population.

The analysis of this study leads to some limitations as well: A few of the loadings from the factor analysis did not meet the threshold implying that these items are placed in the same factor loadings of other items. However, because all the questions used in the questionnaire were derived from validated research it was decided to continue with the constructs. Next, while testing the reliability in SPSS the Cronbach's alpha for the construct instrumental commitment was beneath the accepted threshold. However, the Cronbach's Alpha measured with PLS for instrumental commitment was sufficient and therefore it was decided to continue with the construct. Further, the convergent validity for affective commitment could be problematic given the low AVE. Nonetheless, the AVE was accepted because the composite reliability is high enough and the AVE was very close to the threshold of 0.5. The final limitation is the wrongly measured constructs of trusting intention. Because all the questions were derived from previous and validated research, not enough attention has been given to the actual measures of those questions. The questions from trusting intention are about dependency and capability. This does correspond with the sub-components of trusting intention, but when thinking of trusting intention one would assume more questions regarding willingness and intention to trust. This indicates that the definitions do not match with the construct names and the questions, which was noticed too late in this study.

This provides a first recommendation for future research: A better and more suitable measurement should be developed for trusting intention. Additionally, a better division for the types of trust should be developed, especially for trust in general, trusting belief and trusting intention. Currently the constructs from trusting belief could also measure trust in general, instead of the sub-factors they are composed of. This indicates that there is no sufficient division for the different types of trust and leads to wrong measurements and a wrong understanding of those concepts. A second possibility for future research could be to examine the types of trust and commitment which were not taken into account for this study. For example, the psychological commitment factors by Porter et al. (1974) or the

before entry commitment types from Cohen (2007). It might be possible that other types yield different insights in their relationship with supplier satisfaction. This could be valuable for organisations as well, as they can get a broader understanding of all the different types and sub-aspects of trust and commitment and apply their supplier strategies accordingly. A third suggestion for future research could be to apply the same model from this study to other outcome variables. It might be interesting to see what effect the different types of trust and commitment have on, for example, performance or status. A corresponding research can involve a comparison with different industries. Next, two different views regarding the substitution or complementary effect were found in literature, and this study complies with one of them. Therefore, future research could provide more insight in this theory and examine whether other variables also substitute or complement each other. The last possibility for future research is to examine the model used in this study from a supplier perspective instead of a buyer perspective: Do the different types of trust and commitment have a different effect on satisfaction/performance/status when explored from another perspective?

## 7 References

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational and organizational psychology*, 63(1), 1-18.
- Anderson, E., & Weitz, B. (1992). The use of pledges to build and sustain commitment in distribution channels. *Journal of Marketing Research*, 18-34.
- Arndt, J. (1979). Toward a concept of domesticated markets. *the Journal of Marketing*, 69-75.
- Aydin, A., Sarier, Y., & Uysal, S. (2011). The Effect of Gender on Organizational Commitment of Teachers: A Meta Analytic Analysis. *Educational Sciences: Theory and Practice*, 11(2), 628-632.
- Becker, H. S. (1960). Notes on the concept of commitment. *American journal of sociology*, 66(1), 32-40.
- Becker, T., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: Implications for job performance. *Academy of Management journal*, 39(2), 464-482.
- Benton, W., & Maloni, M. (2005). The influence of power driven buyer/seller relationships on supply chain satisfaction. *Journal of Operations Management*, 23(1), 1-22.
- Bhattacharya, C. B., Rao, H., & Glynn, M. A. (1995). Understanding the bond of identification: An investigation of its correlates among art museum members. *the Journal of Marketing*, 46-57.
- Boone, S., & Holmes, J. G. (1991). The dynamics of interpersonal trust: Resolving uncertainty in the face of risk. *Cooperation and prosocial behaviour*, 190.
- Brown, R. B. (1996). Organizational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of vocational behavior*, 49(3), 230-251.
- Butler Jr, J. K. (1991). Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory. *Journal of Management*, 17(3), 643-663.
- Caldwell, D. F., Chatman, J. A., & O'Reilly, C. A. (1990). Building organizational commitment: A multifirm study. *Journal of occupational and organizational psychology*, 63(3), 245-261.
- Carr, A. S., & Pearson, J. N. (1999). Strategically managed buyer–supplier relationships and performance outcomes. *Journal of Operations Management*, 17(5), 497-519.
- Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualization of organizational commitment. *Human resource management review*, 17(3), 336-354.
- Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfilment. *Journal of occupational psychology*, 53(1), 39-52.
- Cook, R. D. (1977). Detection of influential observation in linear regression. *Technometrics*, 19(1), 15-18.
- Corporation, I. (2014). *IBM SPSS Advanced Statistics, Version 22.0*. NY: IBM Corp.: Armonk.
- Cote, J., & Latham, C. K. (2006). Trust and commitment: Intangible drivers of interorganizational performance. In *Advances in Management Accounting* (pp. 293-325): Emerald Group Publishing Limited.

- Darolia, C., Kumari, P., & Darolia, S. (2010). Perceived organizational support, work motivation, and organizational commitment as determinants of job performance. *Journal of the Indian Academy of Applied Psychology*, 36(1), 69-78.
- Deutschi, M. (1960). The effect of motivational orientation upon trust and suspicion. *Human relations*, 13(2), 123-139.
- Dickey, M. H., Harrison McKnight, D., & George, J. F. (2008). The role of trust in franchise organizations. *International Journal of Organizational Analysis*, 15(3), 251-282.
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: meta-analytic findings and implications for research and practice. In (Vol. 87, pp. 611): American Psychological Association.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *the Journal of Marketing*, 61(2), 35-51.
- Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer-seller relationships. *the Journal of Marketing*, 11-27.
- Egan, W. J., & Morgan, S. L. (1998). Outlier detection in multivariate analytical chemical data. *Analytical chemistry*, 70(11), 2372-2379.
- English, B., Morrison, D., & Chalon, C. (2010). Moderator effects of organizational tenure on the relationship between psychological climate and affective commitment. *Journal of Management Development*, 29(4), 394-408.
- Essig, M., & Amann, M. (2009). Supplier satisfaction: Conceptual basics and explorative findings. *Journal of Purchasing and Supply Management*, 15(2), 103-113.
- Forker, L. B., & Stannack, P. (2000). Cooperation versus competition: do buyers and suppliers really see eye-to-eye? *European Journal of Purchasing & Supply Management*, 6(1), 31-40.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 39-50.
- Gambetta, D. (2000). Can we trust trust. *Trust: Making and breaking cooperative relations*, 13, 213-237.
- Gassenheimer, J. B., & Ramsey, R. (1994). The impact of dependence on dealer satisfaction: A comparison of reseller-supplier relationships. *Journal of Retailing*, 70(3), 253-266.
- Gellatly, I. R., Meyer, J. P., & Luchak, A. A. (2006). Combined effects of the three commitment components on focal and discretionary behaviors: A test of Meyer and Herscovitch's propositions. *Journal of vocational behavior*, 69(2), 331-345.
- Geyskens, I., Steenkamp, J-B.E., Kumar, N. (1999). A meta- analysis of satisfaction in marketing channel relationships. *Journal of Marketing Research*, 36, 223-238.
- Giffin, K. (1967). The contribution of studies of source credibility to a theory of interpersonal trust in the communication process. *Psychological bulletin*, 68(2), 104.
- Gounaris, S. P. (2005). Trust and commitment influences on customer retention: insights from business-to-business services. *Journal of business research*, 58(2), 126-140.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American journal of sociology*, 91(3), 481-510.
- Gruen, T. W., Summers, J. O., & Acito, F. (2000). Relationship marketing activities, commitment, and membership behaviors in professional associations. *Journal of marketing*, 64(3), 34-49.

- Gulati, R. (1995). Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management journal*, 38(1), 85-112.
- Hagen, J. M., & Choe, S. (1998). Trust in Japanese interfirm relations: Institutional sanctions matter. *Academy of management review*, 23(3), 589-600.
- Hart, K. M., Capps, H. R., Cangemi, J. P., & Caillouet, L. M. (1986). Exploring organizational trust and its multiple dimensions: A case study of General Motors. *Organization Development Journal*, 4(2), 31-39.
- Hassett, M. (2015). Organisational Commitment in Acquisitions. In *Advances in Mergers and Acquisitions* (pp. 19-38).
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial management & data systems*, 116(1), 2-20.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hüttinger, L., Schiele, H., & Schröer, D. (2014). Exploring the antecedents of preferential customer treatment by suppliers: a mixed methods approach. *Supply Chain Management: An International Journal*, 19(5/6), 697-721.
- Hüttinger, L., Schiele, H., & Veldman, J. (2012). The drivers of customer attractiveness, supplier satisfaction and preferred customer status: A literature review. *Industrial marketing management*, 41(8), 1194-1205.
- Johnson-George, C., & Swap, W. C. (1982). Measurement of specific interpersonal trust: Construction and validation of a scale to assess trust in a specific other. *Journal of personality and social psychology*, 43(6), 1306.
- Johnson, M. S., Sivadas, E., & Garbarino, E. (2008). Customer satisfaction, perceived risk and affective commitment: an investigation of directions of influence. *Journal of Services Marketing*, 22(5), 353-362.
- Jones, A. P., James, L. R., & Bruni, J. R. (1975). Perceived leadership behavior and employee confidence in the leader as moderated by job involvement. *Journal of Applied Psychology*, 60(1), 146.
- Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of management review*, 23(3), 531-546.
- Kanter, R. M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. *American sociological review*, 499-517.
- Kee, H. W., & Knox, R. E. (1970). Conceptual and methodological considerations in the study of trust and suspicion. *Journal of conflict resolution*, 14(3), 357-366.
- Kim, C., & Storer, B. E. (1996). Reference values for Cook's distance. *Communications in Statistics-Simulation and Computation*, 25(3), 691-708.
- Kock, N. (2015). One-tailed or two-tailed P values in PLS-SEM? *International Journal of e-Collaboration (IJeC)*, 11(2), 1-7.
- Koufteros, X., Vickery, S. K., & Dröge, C. (2012). The effects of strategic supplier selection on buyer competitive performance in matched domains: does supplier integration mediate the relationships? *Journal of supply chain management*, 48(2), 93-115.
- Kramer, R. M., & Tyler, T. R. (1996). *Trust in organizations: Frontiers of theory and research*: SAGE.
- Kumar, N. (1996). The power of trust in manufacturer-retailer relationships. *Harvard Business Review*, 74(6), 92.

- Lam, S. Y., Shankar, V., Erramilli, M. K., & Murthy, B. (2004). Customer value, satisfaction, loyalty, and switching costs: an illustration from a business-to-business service context. *Journal of the Academy of Marketing Science*, 32(3), 293-311.
- Larzelere, R. E., & Huston, T. L. (1980). The dyadic trust scale: Toward understanding interpersonal trust in close relationships. *Journal of Marriage and the Family*, 595-604.
- Lee, K., Woo, H.-G., & Joshi, K. (2017). Pro-innovation culture, ambidexterity and new product development performance: Polynomial regression and response surface analysis. *European Management Journal*, 35(2), 249-260.
- Leenders, M. R., & Blenkhorn, D.L. (1988). *Reverse marketing: The new buyer- supplier relationship* (C. MacMillan Ed.). New York: Free Press.
- Lelij, R. v. d. (2016). *Satisfying suppliers in order to become a preferred customer. The influence of three major social variables on this process.* (Master), University of Twente, Enschede.
- Lewicki, R. J., & Bunker, B. B. (1996). Developing and maintaining trust in work relationships. *Trust in organizations: Frontiers of theory and research*, 114, 114-139.
- Lin, H.-H., & Wang, Y.-S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & management*, 43(3), 271-282.
- Liu, Y., Luo, Y., & Liu, T. (2009). Governing buyer-supplier relationships through transactional and relational mechanisms: Evidence from China. *Journal of Operations Management*, 27(4), 294-309.
- Maunu, S. (2002). *Supplier satisfaction: The concept and a measurement system; a study to define the supplier satisfaction elements and usage as a management tool.* (Dissertation), University of Oulu, Oulu, Finland.
- Mavondo, F. T., & Rodrigo, E. M. (2001). The effect of relationship dimensions on interpersonal and interorganizational commitment in organizations conducting business between Australia and China. *Journal of business research*, 52(2), 111-121.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review*, 20(3), 709-734.
- McEvily, B., Zaheer, A., & Kamal, D. K. F. (2017). Mutual and Exclusive: Dyadic Sources of Trust in Interorganizational Exchange. *Organization Science*, 28(1), 74-92.
- McKnight, D. H., & Chervany, N. L. (1996). The meanings of trust. *Carlson school of management*, 1(1), 1-86.
- McKnight, D. H., & Chervany, N. L. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International journal of electronic commerce*, 6(2), 35-59.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *The Journal of Strategic Information Systems*, 11(3), 297-323.
- McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial trust formation in new organizational relationships. *Academy of Management*, 23(3), 473-490.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human resource management review*, 1(1), 61-89.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human resource management review*, 11(3), 299-326.



- Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human resource management review*, 20(4), 283-294.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61(1), 20-52.
- Meyerson, S., Weick, K. E., & Kramer, R. M. (1996). *Swift trust and temporary groups*, in: *Trust in organizations: Frontiers of theory and research*. Thousand Oaks, CA: Sage Publications.
- Mohd Noor, N. A., Perumal, S., & Goail, M. M. (2015). The Impact of Relational Marketing Bonds on Retailers' Economic and Social Satisfaction. *Journal of Relationship Marketing*, 14(2), 124-151.
- Mohr, J., & Spekman, R. (1994). Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic management journal*, 15(2), 135-152.
- Monczka, R. M., Petersen, K. J., Handfield, R. B., & Ragatz, G. L. (1998). Success factors in strategic supplier alliances: the buying company perspective. *Decision Sciences*, 29(3), 553-577.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *the Journal of Marketing*, 20-38.
- Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. *Academy of management review*, 8(3), 486-500.
- Moses, T. (1999). Trust management in the public-key infrastructure. *Entrust Technologies White Paper*, 5- 20.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of vocational behavior*, 14(2), 224-247.
- Nagati, H., & Rebolledo, C. (2013). Supplier development efforts: The suppliers' point of view. *Industrial marketing management*, 42(2), 180-188.
- Nunnally, J. (1978). *Psychometric methods*. New York: McGraw-Hill.
- Nyaga, G. N., Whipple, J. M., & Lynch, D. F. (2010). Examining supply chain relationships: do buyer and supplier perspectives on collaborative relationships differ? *Journal of Operations Management*, 28(2), 101-114.
- Panteli, N., & Sockalingam, S. (2005). Trust and conflict within virtual inter-organizational alliances: a framework for facilitating knowledge sharing. *Decision support systems*, 39(4), 599-617.
- Petter, S., Straub, D., & Rai, A. (2007). Specifying formative constructs in information systems research. *MIS quarterly*, 623-656.
- Pool, S., & Pool, B. (2007). A management development model: Measuring organizational commitment and its impact on job satisfaction among executives in a learning organization. *Journal of Management Development*, 26(4), 353-369.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603.
- Praas, N. H. J. (2016). *Becoming a preferred customer: The influence of proximity and public procurement on receiving a preferred customer status*. (Master Business Administration), University of Twente, Enschede.

- Proxima. (2013). A global study of cost externalization and its implications on profitability.
- Pulles, N. J., Schiele, H., Veldman, J., & Hüttinger, L. (2016). The impact of customer attractiveness and supplier satisfaction on becoming a preferred customer. *Industrial marketing management*, 54, 129-140.
- Pulles, N. J., Veldman, J., Schiele, H., & Sierksma, H. (2014). Pressure or pamper? The effects of power and trust dimensions on supplier resource allocation. *Journal of supply chain management*, 50(3), 16-36.
- Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of personality and social psychology*, 49(1), 95.
- Ring, P. S., & Van de Ven, A. H. (1994). Developmental processes of cooperative interorganizational relationships. *Academy of management review*, 19(1), 90-118.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Derived from [www.smartpls.com](http://www.smartpls.com), at 12-12-2017.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of experimental social psychology*, 16(2), 172-186.
- Sahadev, S. (2008). Economic satisfaction and relationship commitment in channels: The moderating role of environmental uncertainty, collaborative communication and coordination strategy. *European Journal of Marketing*, 42(1/2), 178-195.
- Sahi, G. K., Sekhon, H. S., & Quareshi, T. K. (2016). Role of trusting beliefs in predicting purchase intentions. *International Journal of Retail & Distribution Management*, 44(8), 860-880.
- Sako, M., & Helper, S. (1998). Determinants of trust in supplier relations: Evidence from the automotive industry in Japan and the United States. *Journal of Economic Behavior & Organization*, 34(3), 387-417.
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative science quarterly*, 224-253.
- Schiele, H., Calvi, R., & Gibbert, M. (2012). Customer attractiveness, supplier satisfaction and preferred customer status: Introduction, definitions and an overarching framework. *Industrial marketing management*, 41(8), 1178-1185.
- Schiele, H., Veldman, J., & Hüttinger, L. (2011). Supplier innovativeness and supplier pricing: The role of preferred customer status. *International Journal of Innovation Management*, 15(01), 1-27.
- Schurr, P. H., & Ozanne, J. L. (1985). Influences on exchange processes: Buyers' preconceptions of a seller's trustworthiness and bargaining toughness. *Journal of consumer research*, 11(4), 939-953.
- Selnes, F. (1998). Antecedents and consequences of trust and satisfaction in buyer-seller relationships. *European Journal of Marketing*, 32(3/4), 305-322.
- Shanock, L. R., Baran, B. E., Gentry, W. A., Pattison, S. C., & Heggstad, E. D. (2010). Polynomial regression with response surface analysis: A powerful approach for examining moderation and overcoming limitations of difference scores. *Journal of Business and Psychology*, 25(4), 543-554.
- Sharma, N., Young, L. C., & Wilkinson, I. (2015). The nature and role of different types of commitment in inter-firm relationship cooperation. *Journal of Business & Industrial Marketing*, 30(1), 45-59.
- Singh, A., & Gupta, B. (2015). Job involvement, organizational commitment, professional commitment, and team commitment: A study of generational diversity. *Benchmarking: An International Journal*, 22(6), 1192-1211.

- Sitkin, S. B., & Roth, N. L. (1993). Explaining the limited effectiveness of legalistic "remedies" for trust/distrust. *Organization Science*, 4(3), 367-392.
- Solomon, L. (1960). The influence of some types of power relationships and game strategies upon the development of interpersonal trust. *The Journal of Abnormal and Social Psychology*, 61(2), 223.
- Somers, M. J. (2009). The combined influence of affective, continuance and normative commitment on employee withdrawal. *Journal of vocational behavior*, 74(1), 75-81.
- Spina, G., Caniato, F., Luzzini, D., & Ronchi, S. (2013). Past, present and future trends of purchasing and supply management: An extensive literature review. *Industrial marketing management*, 42(8), 1202-1212.
- Stuart, F. I. (1993). Supplier partnerships: influencing factors and strategic benefits. *International Journal of Purchasing and Materials Management*, 29(3), 21-29.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*: Allyn & Bacon/Pearson Education.
- Takeishi, A. (2002). Knowledge partitioning in the interfirm division of labor: The case of automotive product development. *Organization Science*, 13(3), 321-338.
- Venkatesh, V., & Goyal, S. (2010). Expectation disconfirmation and technology adoption: polynomial modeling and response surface analysis. *MIS quarterly*, 281-303.
- Vos, F. G., Schiele, H., & Hüttinger, L. (2016). Supplier satisfaction: Explanation and out-of-sample prediction. *Journal of business research*, 69(10), 4613-4623.
- Vos, F. G. S. (2017). *Preferred customer status, supplier satisfaction and their contingencies*. (Dissertation), University of Twente, Enschede.
- Wasti, S. A. (2005). Commitment profiles: Combinations of organizational commitment forms and job outcomes. *Journal of vocational behavior*, 67(2), 290-308.
- Wegereef, N. (2017). *Measuring suppliers' willingness to collaborate with ZGT in CSR and NPJ projects based on Buyer-supplier knowledge factors*. (MSc.), University of Twente, Enschede.
- Wilkinson, I., & Young, L. (2002). On cooperating: firms, relations and networks. *Journal of business research*, 55(2), 123-132.
- Williamson, O. E. (1975). *Strategy: Critical Perspectives on Business and Management*. New York: Taylor & Francis.
- Wong, A. (2000). Integrating supplier satisfaction with customer satisfaction. *Total Quality Management*, 11(4-6), 427-432.
- Xu, J. D., Cenfetelli, R. T., & Aquino, K. (2016). Do different kinds of trust matter? An examination of the three trusting beliefs on satisfaction and purchase behavior in the buyer-seller context. *The Journal of Strategic Information Systems*, 25(1), 15-31.
- Yahaya, R., & Ebrahim, F. (2016). Leadership styles and organizational commitment: literature review. *Journal of Management Development*, 35(2), 190-216.
- Yaqub, M. Z., Malik, A., & Shah, H. (2010). The roles of satisfaction, trust and commitment in value-creation in strategic networks. *European Journal of Economics, Finance and Administrative Sciences*.
- Young, L., & Denize, S. (1995). A concept of commitment: alternative views of relational continuity in business service relationships. *Journal of Business & Industrial Marketing*, 10(5), 22-37.

Zineldin, M., & Jonsson, P. (2000). An examination of the main factors affecting trust/commitment in supplier-dealer relationships: an empirical study of the Swedish wood industry. *The TQM magazine*, 12(4), 245-266.

## 8 Appendices

### *Appendix A - Used measures*

<b>Supplier satisfaction</b> source: F. G. Vos et al. (2016); Pulles et al. (2016)	
S_Satisfaction_100_1	Our firm is very satisfied with the overall relationship to BuyingFirmXY.
S_Satisfaction_100_3	Generally, our firm is very pleased to have BuyingFirmXY as our business partner.
S_Satisfaction_100_4	If we had to do it all over again, we would still choose to use BuyingFirmXY.
S_Satisfaction_100_5	Our firm does not regret the decision to do business with BuyingFirmXY.
<b>Trust</b> source: McKnight et al. (2002); Kumar (1996); Hüttinger et al. (2014)	
ADD_Trust_150_1	BuyingFirmXY keeps promises it makes to our firm.
ADD_Trust_150_3	We trust BuyingFirmXY to keep our best interests in mind.
ADD_Trust_150_4	We consider BuyingFirmXY as trustworthy.
<b>Trusting intention</b> source: McKnight et al. (2002); Kumar (1996)	
ADD_Trust_Intent_151_1	To achieve our business goals, our company is very dependent on the other party
ADD_Trust_Intent_151_2	I feel safe, assured and comfortable in the relationship with the other party
ADD_Trust_Intent_151_3	The other party is skilful and effective in its work.
ADD_Trust_Intent_151_4	Overall, the other party is capable and proficient
<b>Trusting belief</b> source: Dickey et al. (2008); McKnight et al. (2002)	
ADD_Trust_Belief_153_1	The other party is honest
ADD_Trust_Belief_153_2	The other party is sincere
ADD_Trust_Belief_153_3	I believe the other party would act in my best
ADD_Trust_Belief_153_4	I believe the other party is interested in our well
<b>Trust extra</b> source: Pulles, Veldman, Schiele, and Sierksma (2014) <i>Please indicate in % how much trust BuyingFirmXY you have</i>	

ADD_Trust_Perc_152_1	When BuyingFirmXY makes a promise, we trust that BuyingFirmXY has the managerial and technical capabilities to do what it says it will do.
ADD_Trust_Perc_152_2	We believe that BuyingFirmXY would make sacrifices for us to support our firm.
<b>Commitment</b> source: Morgan and Hunt (1994); Dickey et al. (2008); McKnight et al. (2002) <i>The relationship with the other party...</i>	
ADD_Relationship_144_1	...is something we are very committed to
ADD_Relationship_144_2	...is very important to us
ADD_Relationship_144_3	...is something we really care about
<b>Instrumental commitment</b> source: Cohen (2007); Caldwell, Chatman, and O'Reilly (1990)	
ADD_Instr_Commitment_146_1	The amount of effort I put in this buyer is related to previous outcomes and results
ADD_Instr_Commitment_146_2	Unless I see positive results, I see no reason to spend extra effort in this relationship
<b>Affective commitment</b> source: Cohen (2007); Meyer and Allen (1991)	
ADD_Affect_Commitment_148_1	I have a personal and emotional attachment with the buyer
ADD_Affect_Commitment_148_2	I can identify myself with the buyer
ADD_Affect_Commitment_148_3	I care about the business results of the buyer
ADD_Affect_Commitment_148_4	I feel at ease with the buyer
ADD_Affect_Commitment_148_5	I find that my company's values and the values

Table 11: Used measures and questionnaire questions.

*Appendix B - Cook's distance and Mahalanobis*

Residuals Statistics <sup>a</sup>					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	11.7926	20.2435	17.3483	1.85057	89
Std. Predicted Value	-3.002	1.565	.000	1.000	89
Std Error of Predicted Value	.284	1.018	.517	.146	89
Adjusted Predicted Value	11.4067	20.3109	17.3471	1.83281	89
Residual	-6.76163	3.29091	.00000	2.00804	89
Std. Residual	-3.270	1.592	.000	.971	89
Stud. Residual	-3.508	1.612	.000	1.014	89
Deleted Residual	-8.16962	3.37735	.00123	2.19434	89
Stud. Deleted Residual	-3.778	1.628	-.008	1.042	89
Mahal. Distance	.677	20.322	4.944	3.729	89
<b>Cook's Distance</b>	<b>.000</b>	<b>.551</b>	<b>.016</b>	<b>.060</b>	<b>89</b>
Centered Leverage Value	.008	.231	.056	.042	89

Table 12: Calculation of Cook's distance in SPSS.

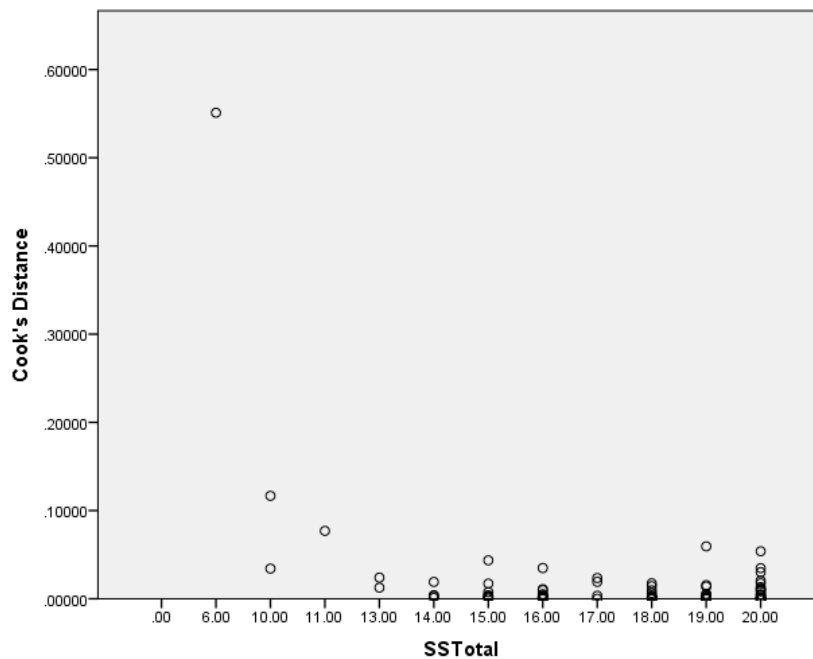


Figure 6: Outlier detection using Cook's distance.

IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Extensions Window Help

1: MAH\_1 23.88545079247369 Visible: 173 of 173 Variables

	TBTotal	COO_1	COO_2	MAH_1	Probability_Mahalobis	var	var	var	var	var	var	var
1	13.00	.02397	.00243	23.88545	.00023							
2	19.00	.01750	.00110	20.22927	.00113							
3	17.00	.05940	.05522	13.15290	.02199							
4	13.00	.00102	.01063	11.77334	.03803							
5	23.00	.05386	.04850	11.32523	.04530							
6	18.00	.00000	.00016	11.18803	.04778							
7	24.00	.00000	.00053	10.38668	.06499							
8	25.00	.00020	.00019	9.01783	.10836							
9	13.00	.03421	.06817	8.81873	.11652							
10	23.00	.02053	.02540	8.43790	.13370							
11	18.00	.00220	.00404	8.20149	.14548							
12	20.00	.03475	.02764	7.85698	.16430							
13	14.00	.00186	.00248	7.70435	.17330							
14	15.00	.00235	.00294	7.53608	.18372							
15	18.00	.01432	.02217	7.32288	.19771							
16	17.00	.01255	.03774	7.30360	.19902							
17	22.00	.03010	.02961	6.98731	.22159							
18	21.00	.00421	.00319	6.95719	.22384							
19	19.00	.01390	.01111	6.58753	.25317							
20	23.00	.00214	.00037	6.26977	.28085							
21	21.00	.00339	.00644	6.21654	.28571							
22	17.00	.00064	.00162	6.21406	.28594							
23	23.00	.00079	.00413	6.14448	.29241							

Data View Variable View

IBM SPSS Statistics Processor is ready Unicode: ON

Figure 7: Screenshot of Mahalanobis analysis.



*Appendix C- Rotated component matrix and HTMT*

**Rotated Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
S_Satisfaction_100_1	0.373	0.684	-0.015	0.155	0.199
S_Satisfaction_100_3	0.188	0.899	0.149	0.099	0.049
S_Satisfaction_100_4	0.247	0.896	0.108	0.076	0.009
S_Satisfaction_100_5	0.243	0.776	-0.042	0.045	0.261
ADD_Instr_Commitment_146_1	-0.046	0.131	0.077	0.768	-0.225
ADD_Affect_Commitment_148_1	-0.034	0.090	0.814	-0.006	0.207
ADD_Affect_Commitment_148_2	0.188	0.021	0.862	0.020	0.019
ADD_Affect_Commitment_148_3	0.057	0.200	0.285	-0.049	0.701
ADD_Affect_Commitment_148_4	0.450	0.066	0.570	-0.143	0.417
ADD_Affect_Commitment_148_5	0.334	0.159	0.153	0.202	0.682
ADD_Trust_Intent_151_3	0.258	0.116	-0.073	0.785	0.311
ADD_Trust_Intent_151_4	0.360	0.038	-0.148	0.631	0.495
ADD_Trust_Belief_153_1	0.753	0.332	-0.017	0.270	0.131
ADD_Trust_Belief_153_2	0.837	0.290	0.076	0.194	0.021
ADD_Trust_Belief_153_3	0.782	0.252	0.180	0.014	0.172
ADD_Trust_Belief_153_4	0.729	0.237	0.141	0.015	0.241

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Table 13: Rotated component matrix for factor analysis.

	AC	IC	SS	TB	TI
AC					
IC	0.097				
SS	0.420	0.143			
TB	0.579	0.126	0.679		
TI	0.300	0.327	0.376	0.541	

Table 14: Heterotrait- Monotrait Ratio (HTMT).

## Appendix D – PLS path modelling

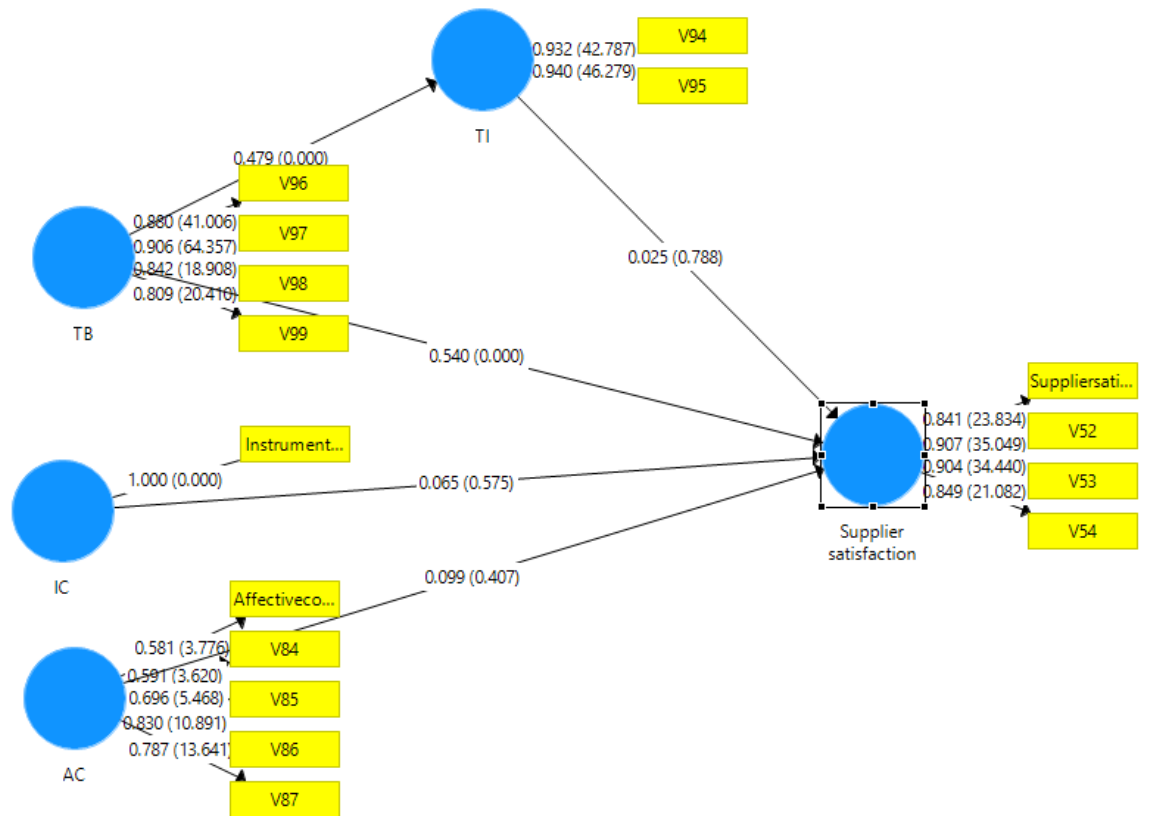


Figure 8: Screenshot of PLS path modelling.