

Employing customer experience as a differentiator of purchasing decisions in the industrial sector

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ABSTRACT

Customer experience is a well-studied and applied field in B2C environments. Many organisations have reaped the benefits for their continuous focus on customer experience and the implementation thereof in their strategies. Unfortunately, for B2B environments the same cannot be stated as customer experience in B2B environments are researched in a much lesser degree. Common industries covered in B2B customer experience research are e-commerce, financing, banking and insurance, but not much for heavy industry. For vendors in heavy industry to reap the same benefits as their B2C counterparts, they need to understand their heavy industry customers' perception of customer experience and what the consequences of these are. The aim of the study was to determine the antecedents and constructs of customer experience in heavy industry, and the degree of influence the identified constructs will have on the buying behaviour of customers in this sector. Questionnaires covering antecedents of customer experience were utilised to collect data to understand what customers in heavy industry perceive as customer experience and how it will influence their buying behaviour. Simple descriptive statistics were used to identify the constructs of customer experience in heavy industry, the perceived importance of each, and to build a new model of customer experience in heavy industry. Practical significance was used for hypotheses testing as set out in the study. Results indicated that antecedents of customer experience in heavy industry consist of constructs or sub-antecedents which indicate that customer experience, though a process followed by every customer naturally in any industry without thinking about the process, are complicated. Due to the complexity of customer experience each construct needs to be studied to understand the full impact of customer experience in heavy industry on buying behaviour. Results further indicated that there is a correlation between commitment and trust, and between commitment and service and product quality, with no correlation to satisfaction. The absence of correlation of satisfaction with any of the antecedents can be perceived by some that satisfaction is a consequence of customer experience and not an antecedent.

Key terms:

Customer experience, B2C, B2B, heavy industry, trust, commitment, product and service quality, satisfaction, antecedents, buying behaviour.

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“Only a life lived for others is a life worth living” – Albert Einstein.

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Martha van Schalkwyk

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DEFINITIONS

Vendors	Any organisation supplying a product or service to heavy industry on contract or by purchase requisition.
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CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

Heavy industry is mainly involved in the primary economic activities extractive in nature which are limited by natural growth factors and secondary activities involved with production and manufacturing activities (Schafran et al., 2018). It can be described as businesses that are capital-intensive, involves large quantities of products, heavy products, require large equipment or facilities for production, or complex and numerous processes (Kenton, 2018). Bhavani (2018) divided heavy industry into three branches: extraction, smelting and or processing, and machine building to equip the national economy. It includes companies like Sasol, ArcelorMittal, Sappi, Mondi, SAPREF, Anglo American and manufacture products such as petroleum, coal, chemicals, fertilisers, pesticides, timber, pulp and paper, metals, non-metal ores and raw mining materials (Bhavani, 2018).

Other important characteristics of heavy industry is that products from these large enterprises serve as raw materials for the secondary industry sectors and organisations, and service providers in this industrial segment are far removed from consumers, and operates in relative inelastic business markets, such as fuel, potable water, paper, electricity, food and beverages. These heavy industry enterprises are also characterised by their complexity and highly segmented workforce. A lot of role players or segments are involved in purchasing decisions in a typical large enterprise transaction; for example, technical, commercial, production and customer services (Lilien, 2016).

As a result of being removed from interactions with final users of products, the complexed value chain and long distance between raw material extraction and consumer ready products, it is impossible and of no use for service providers and vendors in heavy industry to focus on the trends followed by the end-consumers, their purchasing behaviours or their customer experiences to improve services and products. Heavy industrial organisations rely on a network of vendors for the supply of commodities, raw materials, feedstock, speciality products and specialised services. Vendors need to be experts in their field of operation to assist in optimising industries' processes and manufacturing. These vendors

are required to understand their customers in heavy industries' complexed processes in-depth to be able to provide the required services and products, be able to supply these services and products cost effectively and of quality. Unfortunately, service providers adhering to all these requirements have no guarantee of a set deal or awarded contract. Service providers in heavy industry are required to focus on additional aspects to grow market share and to create a competitive advantage of which customer experience is such an opportunity.

1.2 PROBLEM STATEMENT

Vendors in heavy industry cannot rely only on their customer service departments to ensure heavy industrial customers are satisfied with their delivered products and services as required. Though price and product quality and specialised services are of importance to heavy industrial enterprises they require more from their vendors, as heavy industrial enterprises want to have a good experience during business interactions with their vendors. Limited heavy industrial vendors seem to incorporate customer experience as part of their strategies, either because they do not understand how they can deliver a good experience to their customers, which components to deliver on, or they simply do not understand the value customer experience can add in their competitiveness (Wollan, 2016).

Modern research shows that customer experience is perceived to be the third most important driver of buying behaviour in a business to customer (B2C) environment; that is, after price and product quality (Clark and Kinghorn, 2018). Customer experience, as driver of buying behaviour in consumer markets is well established, researched and also understood. Many companies do implement managerial interventions to enhance customer experience as part of their competitive strategy.

This is, however, not the case in industrial market strategies where business to business (B2B) marketing realise (Lilien, 2016). Limited B2B organisations seem to incorporate customer experience as part of their strategies, either because they do not understand how they can deliver a good experience to their customers, or they simply do not understand the value customer experience can add in their competitiveness (Wollan, 2016). This is the problem B2B organisations face with customer experience as potential competitive management strategy.

1.3 RESEARCH QUESTIONS AND RESEARCH OBJECTIVES

The problem statement on non-comprehension and implementation of customer experience in heavy industries, culminates from three research questions. They are:

1. Which antecedents are important for the customer experience in the complexed and segmented business environment of large enterprises in heavy B2B industry?
2. Can customer experience be a differentiator for purchasing decisions for large enterprises in the heavy B2B industry?
3. How can customer experience be managed in the heavy B2B industry?

Based on the research questions, the study formulated the following research objectives:

- Identify the relevant antecedents of customer experience in the heavy B2B industry environment from the literature.
- Develop relevant measuring criteria from the literature to measure the respective antecedents of customer experience in the heavy B2B industry environment.
- Validate the antecedents and measuring criteria statistically.
- Determine the importance of the customer experience antecedents in the heavy B2B industry environment.
- Examine if the demographic profiles age, experience or managerial position play a role in customer experience.
- Develop a model to manage customer experience in a heavy industry.

1.4 HYPOTHESES

The hypotheses for this study are:

- H0:** There is no positive relationship between customer experience antecedents that influence buying behaviour intention in the heavy B2B market.
- HA₁:** The antecedents of customer experience differ in importance towards their influence on buying behaviour intention in the heavy B2B market.
- HA₂:** The antecedents of customer experience are influenced by the demographic profiles age, experience or managerial position in the heavy B2B market.

1.5 RESEARCH METHODOLOGY

Customer experience cannot be measured adequately with a single set of measures across industries and sectors (Lemon and Verhoef, 2016). Heavy industrial companies of interest purchasing decisions are influenced in various degrees and weights by each segment or department. These segmented departments will vary in their perception of customer experience as they differ in functionality and the services and products they require from service providers.

1.5.1 Questionnaire design

In order to achieve the research objectives a literature review was performed to understand the concept of customer experience and the role it plays in business environments. Distinction was made in the literature review between customer experience in the B2C environment and customer experience in the B2B environment. Antecedents of B2B customer experience were identified from literature as commitment, trust, service and product quality and satisfaction. Existing B2C experience models, SERVQUAL and EXQ, were adapted to match the identified B2B antecedents. SERVQUAL is a quality management model to measure service quality by measuring reliability, assurance, empathy, tangibility and responsiveness while EXQ measures perceived customer experience quality deeply rooted in behavioural theories (Kashif, 2016). Adapted customer experience models and own experience were used to compile the questionnaire that was used for quantitative research.

The questionnaire consisted of two sections. The first section of the questionnaire obtained the demographic profile of the participants. The second section of the questionnaire contained questions covering the antecedents commitment, trust, service and product quality, and satisfaction. These antecedents were identified from the literature review on customer experience. A five-point Likert scale with pre-coded closed questions was used with some value inherent in the item on the questionnaire ranging from strongly disagree (1), disagree (2), undecided (3), agree (4), and strongly agree (5) to collect discrete (also called attribute-ordinal) data. The questionnaire appears in Appendix A.

1.5.2 Population

The entire study was conducted at a variety of international heavy industrial organisations with representation in South Africa involved in the manufacturing of pulp and paper products, petroleum relevant products, food and beverage, mining and metals. To be included in the population, the respondents and their companies were required to adhere to the following profiles.

1.5.2.1 Characteristics of the purchasing process in heavy industry

Purchases by the identified industries share certain commonalities:

- Purchasing decisions are made by more than one person or department.
- Purchasing process takes time.
- Purchasing decisions are subjected to technical, production, mechanical, electrical, instrumentation, commercial and financial evaluations and requirements depending on the service or product required.
- Each segmented department evaluates a purchasing decision by appointment of weights.
- Strict competition policies are enforced.
- Competitive pricing and product quality are a given.

1.5.2.2 Requirements of research participants

Research participants are currently employed by one of the identified heavy industrial enterprises in the commercial, technical, mechanical, electrical, instrumentation or production department. Research participants are knowledgeable and actively involved (Given, 2008) in purchasing decisions and/or awarding contracts to service providers as a prerequisite and criteria for the study.

1.5.2.3 Compilation and attributes of study populations

The study population consisted of representatives from technical, production, mechanical, electrical, instrumentation, commercial and financial departments as these departments are involved in purchasing decisions. It is of importance to the study to distinguish between the departments to determine each department's perception of customer experience as a result of differences in functionality.

1.5.2.3.1 Production departments

Production departments are the largest departments within large industrial companies and the highest quantity surveys will be distributed amongst production employees. The typical larger population within the production department will consist of plant owners, production managers, plant support (process-, metallurgy- and mechanical engineers) and technicians across all production units involved in purchases. The main focus of production departments is to reach production targets without compromising safety. Optimal production won't be possible without the addition of raw products and chemicals for effective conditioning of production processes. Process conditioning by chemicals requires highly technical competent service providers and production personnel.

1.5.2.3.2 Technical departments

Large industrial companies need to stay on the forefront of technical development to stay competitive. The technical department is responsible to perform research and to give technical support to production. The typical larger population within the technical department involved in purchasing decisions consist of scientists and technologists. All proposed chemicals, products, services and technologies for process conditioning are evaluated by the technical department before incorporated in production. Technical evaluation of chemicals and technologies are done in close cooperation with service providers by literature searches, lab evaluations and/or pilot studies. The main focus of the technical department is to ensure sound processes while keeping equipment integrity intact and adhering to regulatory requirements.

1.5.2.3.3 Commercial departments

The typical larger population of the commercial department consists of contract and financial managers. The main focus of the commercial department is to ensure that service providers adhere to all legal requirements, company policies and process requirements as stipulated by production and technical departments. A commercial department is responsible to award and/or extend contracts with the input from technical and production departments.

1.5.2.3.4 Mechanical, electrical and instrumentation departments

The mechanical, electrical and instrumentation departments are responsible to ensure that the functionality of the plant is kept to a maximum. These departments are responsible for the physical maintenance, replacement, calibration and repair of plant equipment and instruments. Some of the responsibilities are contracted to speciality service providers on an ad hoc basis as and when required. Speciality service providers are high in demand specially during plant shutdown operations.

1.5.3 Sample of the study

The total population available to the study is relatively small and restrained by the criteria explained above because it requires that respondents are knowledgeable and involved in heavy industries' purchasing decisions. The low number of qualified respondents serves as a constraint to the study because, not only is it difficult to collect data in a B2B environment, (Lilien, 2016); the population is also small. As a result, no sample was drawn, and the population was targeted to collect data from.

1.5.3 DATA COLLECTION

1.5.3.1 Data collection

Identified prospective respondents were identified from the Buckman customer contact list and informed either telephonically or in person about the study. They were also requested to participate in the study. This first contact was followed up by sending an e-mail that contained an online consent letter and online link to the questionnaire. Although the purpose of the study was communicated during the first telephonic or personal contact, consent and purpose of the study were reiterated on the e-mail. Respondents were assured on the information page of the questionnaire that all information is treated confidentially, and that feedback is anonymous. Respondents were requested to answer the questions honestly and timeously.

1.5.3.2 Response rate

Questionnaires were distributed to the population consisting of 109 prospective respondents. Some 46 completed the online questionnaires contributing to a 42.2% successful participation rate after the data collection period of 73 days.

1.6 DATA ANALYSIS

The following quantitative data analysis methods were used for statistical analysis:

- **Inferential statistical analysis**

Inferential statistical analysis allows predictions and generalisations about a population to be made from data. Inferential statistics have two main areas:

- *Estimating parameters*: Taking statistics from the sample data and use it in comparison to a population parameter to determine such as the standard deviation σ , populations mean (μ), population proportion (p) and sample mean (χ).
- *Hypotheses tests*: Sample data can be used to answer research questions (Stephanie, 2014d).

Inferential statistics are techniques to use samples to make generalisations about a population from which the samples were taken, “to answer questions about the data, to test hypotheses..., to generate a measure of effect, typically a ratio of rates to risks, to describe associations (correlations) or to model relationships (regression) within the data” (Alexopoulos, 2010).

- **Exploratory factor analysis**

Factor analysis is a method to work with a mass of data by shrinking it into a smaller data set to make it more manageable and understandable to find hidden patterns; see how they overlap and see the characteristics of multiple patterns. “A “factor” is a set of observed variables that have similar response patterns (which) are associated with a hidden variable that isn’t directly measured” (Stephanie, 2014c). The two-factor analysis that will be focussed on is:

- **Kaiser Meyer Olkin (KMO)** tests determine how suited the data is for analysis by measuring “sample adequacy for each variable in the model and the complete model. The statistic is a measure of the proportion of variance among variable that might be common variance” (Stephanie, 2016). A proportion between 0.8 – 1 indicates the sampling is adequate. A proportion close to zero is an indication that the correlations are widespread and is unacceptable for factor analysis (Stephanie, 2016).
- **Bartlett’s test of sphericity** determines if there is redundancy between variables, that can be condensed with some factors, by comparing a matrix of Pearson correlations to the identity matrix (Stephanie, 2014a). The test

provides a chi-square output and should be <0.05 to be considered significant. In short, if the test indicates the item correlation is not an identity matrix, factor analysis can be performed (Taherdoost et al., 2014).

- **Reliability Cronbach's Alpha** is measured by the coefficient Cronbach's Alpha that was developed to provide a measure of the internal consistency of a test or scale and is typically used to determine the reliability of multiple-question Likert scale surveys and is expressed as a value between zero and one (Tavakol and Dennick, 2011, Stephanie, 2014b). Likert scale questions measure latent variables which is unobservable such as a person's conscientiousness, neurosis and openness. Cronbach's Alpha is used to determine if the designed test is measuring the variable of interest accurately (Stephanie, 2014b).

1.7 RESEARCH CLEARANCE AND APPROVAL

The proposed study was presented to the Economic and Management Sciences Research Ethics Committee of the North-West University for ethical clearance. Clearance to conduct the study was obtained on 30 August 2019 and awarded with the ethical clearance number *NWU-00417-19-A4*.

1.8 STUDY LIMITATIONS

The study was conducted in South African heavy industrial enterprises that have an international footprint, and amongst respondents who are knowledgeable and actively involved with their companies' purchasing decisions. As a result of the strict population definition, only limited potential respondents qualify for inclusion.

Other limiting factors to the study were:

- Employees do not see any direct incentive to participate in the study.
- Some heavy industrial sites having compulsory shut downs lowering participant availability for participation in the study.
- It is time consuming to identify and reach possible participants due to strict security access and legal requirements.

Slow response times and limited access to the population resulted in an extended data-collection period.

1.9 LAYOUT OF STUDY

The chapter layout in this mini-dissertation for the study uses a scientific article format and is summarised as follow:

- **Chapter one** will serve as an introduction to the scope and content of the paper to explain the reason for the research topic chosen. The chapter will contain the problem statement, the research objectives, methods and hypotheses.
- **Chapter two** will serve as a stand-alone article. This means that there are, inevitably, repetitive text that also appears in Chapters 1 and 3. This also means that each chapter would have its own list of references. The references are according to the proposed journal guidelines and not according to NWU guidelines.
- **Chapter three** will discuss the outcome and conclusions of the study as well as areas for future research.

1.10 SUMMARY

This chapter provided a background to the study on customer experience. The chapter illuminated the problem of customer experience as competitive tool in the B2B heavy industry market, and also postulated research questions, the objectives and the hypotheses. The chapter also described the layout of the study, and then listed some limitations of the study.

The next chapter is the scientific article. The article presents the theoretical basis, the empirical findings, draws conclusions and makes recommendations on the findings.

The next chapter is the stand-alone article of the study. This article is currently prepared for submission to be reviewed and hopefully published by a scientific academic journal.

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CHAPTER 2

UTILISING CUSTOMER EXPERIENCE AS A DIFFERENTIATOR FOR PURCHASING DECISIONS IN THE INDUSTRIAL MARKET

ABSTRACT

Customer experience is a well-studied and applied field in Business to Consumer (B2C) environments. Many organisations have reaped the benefits for their continuous focus on customer experience and the implementation thereof in their strategies. Unfortunately, for Business to Business (B2B) environments the same cannot be stated as customer experience in B2B environments are researched in a much lesser degree. Common industries covered in B2B customer experience research are e-commerce, financing, banking and insurance, but not much for heavy industry. For vendors in heavy industry to reap the same benefits as their B2C counterparts, they need to understand their heavy industry customers' perception of customer experience and what the consequences of these are.

The aim of the study was to determine the antecedents and constructs of customer experience in heavy industry, and the degree of influence the identified constructs will have on the buying behaviour of customers in this sector. Questionnaires covering antecedents of customer experience were utilised to collect data to understand what customers in heavy industry perceive as customer experience and how it will influence their buying behaviour. Simple descriptive statistics were used to identify the constructs of customer experience in heavy industry, the perceived importance of each, and to build a new model of customer experience in heavy industry. Practical significance was used for hypotheses testing as set out in the study.

Results indicated that antecedents of customer experience in heavy industry consist of constructs or sub-antecedents which indicate that customer experience, although a process followed by every customer naturally in any industry without thinking about the process, are complicated. Due to the complexity of customer experience each construct needs to be studied to understand the full impact of customer experience in heavy industry on buying behaviour. Results further indicated that there is a correlation between commitment and trust, and between commitment and service and product quality, with no

correlation to satisfaction. The absence of correlation of satisfaction with any of the antecedents can be perceived by some that satisfaction is a consequence of customer experience and not an antecedent.

1. INTRODUCTION

Heavy industry is mainly involved in the primary economic activities extractive in nature which are limited by natural growth factors and secondary activities involved with production and manufacturing activities. It can be described as businesses that are capital-intensive, involves large quantities of products, heavy products, require large equipment or facilities for production, or complex and numerous processes (Kenton, 2018). Bhavani (2018) divided heavy industry into three branches: extraction, smelting and or processing, and machine building to equip the national economy. It includes companies like Sasol, ArcelorMittal, Sappi, Mondi, SAPREF, Anglo American and manufacture products such as petroleum, coal, chemicals, fertilisers, pesticides, timber, pulp and paper, metals, non-metal ores and raw mining materials (Bhavani, 2018).

These industries are limited by mechanical (Schafran et al., 2018), resource and technical factors. This phenomenon can be seen practically in one of South Africa's largest fuel and chemical manufacturers mining coal for their coal-to-liquid plant process to manufacture low sulphur containing fuels, waxes and oils, fertilisers and a wide variety of chemical products. The same phenomena can be seen at large paper mills extracting trees from their own plantations as raw material for their pulp and paper processes. Not all heavy industrial organisations follow this particular route of being closely involved and responsible in the provision of their main raw materials but is a common practice in South Africa but choose from effective partners to provide them with a supply network.

Other important characteristics of heavy industry is that products from these large enterprises serve as raw materials for the secondary industry sectors and organisations, and vendors in this industrial segment are far removed from consumers, and operates in relative inelastic business markets, such as fuel, potable water, paper, electricity, food and beverages. These heavy industry enterprises are also characterised by their complexity and highly segmented workforce. A lot of role players or segments are involved in purchasing decisions in a typical large enterprise transaction; for example, technical, commercial, production and customer services (Lilien, 2016).

As a result of being removed from interactions with final users of products, the complexed value chain and long distance between raw material extraction and consumer ready products, it is impossible and of no use for service providers and suppliers in heavy

industry to focus on the trends followed by the end-consumers, their purchasing behaviours or their customer experiences to improve services and products.

Heavy industrial organisations rely on a network of suppliers for the supply of commodities, raw materials, feedstock, speciality products and specialised services. Suppliers need to be experts in their field of operation to assist in optimising industries' processes and manufacturing. These suppliers are required to understand their customers in heavy industries' complexed processes in-depth to be able to provide the required services and products, be able to supply these services and products cost effectively and of quality. Unfortunately, service providers adhering to all these requirements have no guarantee of a set deal or awarded contract. Service providers in heavy industry are required to focus on additional aspects to grow market share and to create a competitive advantage of which customer experience is such an opportunity.

2. LITERATURE REVIEW OF CUSTOMER EXPERIENCE

Customer experience can be explained as the impression left with a customer as a result of an interaction with a business, from visiting a website, visiting a store, talking to customer services, interacting with sales people, receiving a service, purchasing of a product up to using a product. Customer experience is, therefore, a holistic perception that customers have of a business or a brand. Businesses should approach customer experience as such and realise that customer experience is the responsibility of everyone in their organisation and not only the responsibility of the customer services department. Customer experience is enormously important for any business as both negative and positive customer experiences will influence businesses' bottom line. Businesses that are truly customer focussed utilise the knowledge they have of their customers' experience as a competitive advantage and differentiator.

The environment a business operates in will determine the organisation's focus and strategy with regards to customer experience. Businesses that supply products through retail are typically referred to business to customer (B2C); entities' businesses that supply products or services to other businesses are referred to as business to business (B2B) entities. This will also cause differentiation with regards to customer experience. Key differences between B2C and B2B customer experience is that with B2C customer

experience customers act to meet their personal needs, can be affected by product design, advertising, branding and lifestyle, customers can make rational or impulse decisions, are motivated by emotion, intuition and impulse, while B2B customer experience customers are acting on behalf of a business to meet a need, objective or goal; purchasing is part of the customer's job and is unlikely to use the product personally – the product is purchased to add value to the business (Hollyoake, 2009). According to Wolfe (2019) there are additional factors influencing heavy industry purchasing behaviours such as demand, price, economy and technological changes (Wolfe, 2019).

2.1 Defining customer experience

Customer experience started to attract the attention of managers as competitive management tool in the seventies (Jain et al., 2017). It soon became an area of rigorous research by 1974 after a seminal study by Mehrabian and Russells reported that experiential marketing positively influences growth in an experience economy (Kumar and Anjaly, 2017). This study also emphasised the importance of customer experience and how organisations can benefit from it. Later researchers such as Pine and Gilmore (1998) and Schmitt (1999) confirmed the initial results and continued to explore the importance and impact of customer experience in an organisation's competitive strategy (Lemon and Verhoef, 2016). Pine and Gilmore (1998) described "experiences" as the fourth wave of economic progressions known as the "experience economy" (Jain et al., 2017) and considered it to be of the utmost importance to organisations to include in their competitive advantage. Furthermore, these researchers emphasised that organisations should manage their competitive advantage so that they move beyond that of merely assessing and managing service quality (McLean, 2017).

Today researchers define customer experience as "holistic in nature, involving the customer's cognitive, affective, emotional, social and physical responses to any direct or indirect contact with the service provider, brand or product, across multiple touch points during the entire customer journey" (McColl-Kennedy et al., 2015). The customer journey is essentially a description of a customer's encounter with a service, beginning with emotions of excitement as they approach the service, followed by a possible low point as they have to wait for service, eagerness of the delivery, surprise of the bill and the overall emotions they have when they leave (Palmer and Bejou, 2016). Meyer and Schwager (cited by McLean, 2017) suggested that customer experience is the "internal and

subjective response that customers have to any direct or indirect contact with a company” (McLean, 2017), and Schmitt (cited by Bustamante and Rubio, 2017) stated that it is not self-generated, but induced (Bustamante and Rubio, 2017). Crosby and Johnson (cited by Jain et al., 2017) stated that “customer experience is perhaps the most important ingredient in building customer loyalty” (Jain et al., 2017) as post-purchase experience is a vital part of customer experience (Kumar and Anjaly, 2017). Loyal and engaged customers are important as they are anticipated to play a vital role in new service and product development and co-creating value and experience (Mohd-Ramly and Omar, 2017). Customer experience is described by Carbone and Haeckel (cited by Jain *et al.*, 2017) as a strategic process to achieve differentiation and to obtain a competitive advantage (Jain et al., 2017) and many organisations are utilising experience-orientated business models as part of their strategy (Ponsignon et al., 2015). Though some organisations embraced literature on customer experience and incorporated it in their strategy, marketing management has been slow to adopt with the major focus still on customer lifetime value (Lemon and Verhoef, 2016).

2.2 B2C CUSTOMER EXPERIENCE

2.2.1 Dimensions of customer experience

Customer experience occurs when customers interact, consumes or uses products or with a physical environment of the experience provider including its personnel, policies and practices (Bustamante and Rubio, 2017). According to Bagdare and Jain (2013) customer experience has four descriptive dimensions:

- Joy: customers often experience a pleasurable state while shopping, but the experience of involving, engaging and entertaining is of interest for this study.
- Mood: the feelings of positive emotions such as excitement, happiness and goodness.
- Leisure: the perception of enjoyment, pleasure and perceived freedom.
- Distinctive: each interaction is subjective to the customer’s evaluation and should therefore be “unique, memorable and sustainable over time” (Bagdare and Jain, 2013).

2.2.2 Elements of customer experience

Customer experience is multidimensional, although most studies only explored one aspect of customer experience (Roy, 2018). Researchers do differ on their focus and understanding on the elements of customer experience as illustrated in Table 1. It is also

possible that not all of the components are equally important in every situation as some components are more influential than others (Izogo et al., 2018).

Table 1: Elements of customer experience as interpreted by researchers

Research Reference	Elements of customer experience	Definition
Bustamante and Rubio (2017) and Keiningham et al. (2017)	Cognitive experience	Progression thinking people use to process information acquired through perception and knowledge gained about products and services which affect the expectations, beliefs and demand for the product.
	Affective experience	Responses of mood and emotions that differs in intensity varying from positive to negative.
	Social experience	Experience co-created through interaction with other people such as customer-employees and customer-customer. Interaction ranges from receiving advice, giving an opinion and assistance.
	Physical experience	Refers to the physiological responses of the customer such as comfort or vitality through interaction with the environment.
(Babin and Attaway, 2000)	Utilitarian value	Cognitive in nature and reflects task-related worth.
	Hedonic value	An emotional experience and is reflected in the value of the shopping experience.
(Gentile et al., 2007)	Sensorial	Component that affects senses by providing a good sensorial experience.
	Emotional	Involves the generation of moods and feelings by creation of an affective relation and strong emotional link.
	Cognitive	An experience connected to thinking engaging customers to use creativity.
	Pragmatic	Experience through the practical act of doing something.
	Lifestyle	Adoption of behaviours through affirmation of the value system and personal beliefs.
	Relational	Experience that involves the person and the relationship with other people.
(Lemke et al., 2011)	Product quality	Incorporation of features into services and products to meet the needs of customers and to create satisfaction by making them free from defects (Akarni, 2013).
	Communication	Two-way process of exchanging information to reach mutual understanding (Reference, 2019).
	Social image	What people think of a business when they hear the name (Entrepreneur).
(Orange Business Services, 2016)	Reliability	Management of unforeseen events to support critical and non-critical business activities.
	Availability	Timely answer to an enquiry according to the customer's terms.
	Simplicity	The easy way of doing business every step of the way.
	Adaptation	Services tailored to the specific needs of customers.
	Anticipation	Development of latest innovations to react fast in a changing environment.
	Accountability	Delivery to promise.

2.2.3 Factors of customer experience

It is important to focus on the factors which are critical to influence customer behaviour to prioritise service related investments and identify the factors of customer experience as follow (Wasan, 2018):

- **Functional clues:** customer experiences with the technical performances of the service in terms of reliability and competence within aspects such as:
 - *Customisation:* the ability of an experience or service provider to match the customer's needs and expectations.
 - *Convenience:* the ability to reduce customer's time, energy and efforts in purchases and use of services.
 - *Credibility:* purchase of services or products can involve uncertainty with regards to performance and risk. Credibility can influence customers' behaviour as trust is a significant factor to build customer relations.
- **Mechanic clues:** the non-living touchable constituents of service offerings, termed by Kotler (cited by Wasan, 2018) as "atmospherics" in the *Service context*. This includes visuals, physical layouts or website layouts, that appeal to the senses of customers that will cause customers to associate their feelings and mood with the service.
- **Humanic clues:** reflected by employees' appearance and behaviour and includes:
 - *Compassion:* the willingness of a service provider to address concerns and needs of the customers.
 - *Competence:* the ability to perform work efficiently and the ability to give sound advice to customers (Wasan, 2018).

2.2.4 Domains of previous research on customer experience

The domains of customer experience are multiple due to the complexity of the experience. The topic of customer experience is multidisciplinary and dynamic (Lemon and Verhoef, 2016). Customer experience has been traditionally studied by scholars in terms of moments of truth and service blueprint in B2C interactions. According to McColl-Kennedy et al. (2015) these research approaches leave the customer essentially passive as a snapshot view is taken with one survey at a point in time

requiring the respondent to build on a memory of the transaction process. This is also problematic as the focus is not from the customer's perspective, but largely from the organisation's (McColl-Kennedy et al., 2015). McColl-Kennedy et al. (2015) broaden their domain of study to the broadening customer role, taking a practice-based approach and recognising the holistic and dynamic nature of customer experience. The conclusion of the study reiterates the importance to measure customer experience across touch points over time as customer practices broaden.

De Keyser et al. (2015) studied customer experience through the principles of cognitive, emotional, physical and sensorial, and social elements. Keiningham et al. (2017) used the study of De Keyser et al. (2015) as a starting point by using customer satisfaction as a representation of customer experience. The study identified a need to identify empirically the most prominent attributes of customer experience.

Lemon and Verhoef (2016) studied customer experience through the customer journey, customer experience measurement and management also taking cognisance of the elements of customer experience as identified by De Keyser et al. (2015). The study indicated the importance to identify critical touch points that will have a significant influence on customer experience by integrating multiple business functions (Lemon and Verhoef, 2016).

Customer experience is an antecedent of brand association according to Zhang et al. (2016). Concluded from the research is that customer experience has an impact on brand equity and employees influence the perception of brand equity in the context of B2B marketing. Should customers associate positively to a brand they will be attracted and retained as loyal customers are willing to pay premium price (Zhang et al., 2016). Lemke (cited by Almoraish et al., 2016) developed customer experience models for B2B and B2C by using objective measures and service performance as factual judgement, a cognitive component that is open for interpretation and a social component. Lemke concluded that B2B customers pay greater attention to firms that realise and provide value-in-use (Almoraish et al., 2016).

2.3.5 Antecedents of customer experience

The antecedents of customer experience described by Lemon and Verhoef (2016) as customer satisfaction, service quality, relationship marketing such as trust and commitment, brand experience and customer engagement are more applicable to this study than studies in the retail environment. Typically, antecedents of customer experience in retail include the store atmosphere, store convenience, store staff and relationship orientation (Bagdare, 2013); these antecedents are not relevant to the heavy industry and, therefore, not included in the focus of this study.

Researchers agree that customer experience can increase customer satisfaction, commitment and loyalty (Bustamante and Rubio, 2017, Keiningham et al., 2017). Fullerton and Taylor (cited by Wasan, 2018) stated customer satisfaction to be “the outcome of a customer’s comparison of perceived performance of service with the expected performance” and is seen as an antecedent of customer behaviour and loyalty (Wasan, 2018). Customer satisfaction is only one of many common features of customer experience (Jain et al., 2017) as it is the level of fulfilment achieved (Keiningham et al., 2017). Customer satisfaction focusses on the customer’s cognitive evaluation of the experience (Lemon and Verhoef, 2016) which accumulates to play a major role in new information and subsequent transactions (Koufteros et al., 2014). Fawcett et al. (2014) included competence, problem resolution, perform to promise and honesty under satisfaction.

Service quality measures how a service provided matches customers’ expectations and can therefore be seen as an antecedent of customer satisfaction (Carlos Martín and Román, 2017). Koufteros (2014) indicated in his study on e-tailing that service quality relies heavily on three dimensions: timeliness, whether products or services are delivered on time; availability, full shipment of goods is available, and if the product or service arrived in the expected condition. Service quality has an “impact on customer retention, market share and profitability (Carlos Martín and Román, 2017). Service quality gives focus to customer experience to understand the background in which experience arise and how to assess and measure the customer experience (Lemon and Verhoef, 2016).

Morgan and Hunt stated in their study that “trust and commitment are at the core of managing customer relationship” (cited by Bagdare, 2013) with the main focus of building a strong relationship with the customer (Lemon and Verhoef, 2016). Relationship marketing was mainly developed “in B2B and marketing channels research” and include trust, commitment, passion, intimacy and relationship quality as constructs in an attempt to increase customer acquisition and customer retention (Lemon and Verhoef, 2016). Trust is seen as a positive outcome of customer experience as it gives a perception of lower risk from the customer’s point of view (McLean, 2017) and is the centre of a bonded experience (Hollyoake, 2009). Communication, interdependence and integrity is seen as areas that support trust (Hollyoake, 2009). Commitment on the other hand is a component of loyalty developed after an experience (Keiningham et al., 2017).

Brakus, Schmitt and Zarantonello (cited by Lemon and Verhoef, 2016) stated that brand experience is subjective and consists of four dimensions: sensory, affective, intellectual and behavioural. A brand can be brought to life by employees’ performance (Bagdare, 2013).

Customer engagement focuses on attitude, behaviours and value extraction when customers connect with an organisation going beyond the mere customer purchase (Lemon and Verhoef, 2016) as they have something of value to offer the organisation (Harmeling et al., 2017). Small and medium enterprise demand personalised engagement, tailored solutions based on their unique preferences (Helliwell, 2015). Harmeling et al. (2017) found in their experimental engagement initiatives that transformation of the customer’s self-perception had an increase on customer engagement by making voluntary resource contributions. Figure 1 summarises the theoretical findings with regard to customer experience.

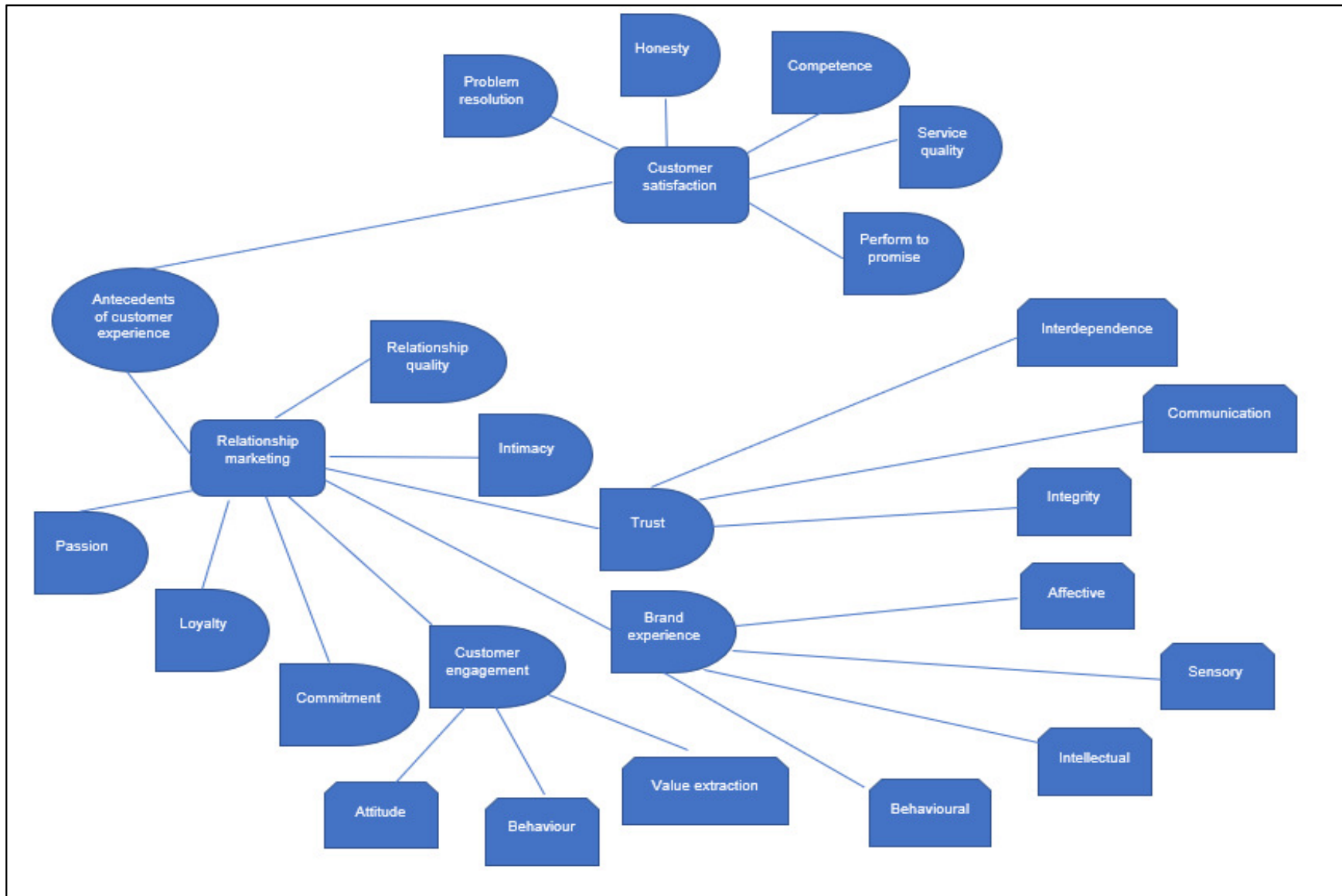


Figure 1: Summary of theory on customer experience

2.3 B2B CUSTOMER EXPERIENCE

The literature search has indicated that B2C customer experience is a well-researched topic but limited empirical research on B2B customer experience is available. This phenomenon could be a result of amplified complexity of B2B interactions over B2C interactions. Although customer experience is complex in B2C interactions, the B2B buying patterns are far more complex than those of business focused on retail customers due to multiple customers and plurality of stakeholders per interaction. B2B organisations are further removed from the end-user of the product than B2C companies and B2B organisations have larger offerings and services than B2C organisations, giving more reason for the amplified complexity of B2B customer experience (Maechler et al., 2016). The speed of response and the ease of doing business that B2C industries enjoy are migrating to B2B (Maechler et al., 2016).

2.3.1 Why B2B customer experience matters

Customer experience is considered by the Marketing Science Institute as “one of the most important research challenges in the coming years” (cited by Lemon and Verhoef, 2016). According to a study performed by Gallup 71 percent of companies are not committed to stay loyal as companies ignore the voice of the customer (Maguire and Hiscock, 2016).

B2B customer experience might not be such a thrilling experience as B2C, but is still a creation of takeaway impressions stored in the memory of customers (McLean, 2017). B2B customer experience is of increasing importance to businesses. Previously B2B interactions focused on brand and image (Biedenbach and Marell, 2010) because brand is a critical concern in the decision-making process as it involves higher risk to the customer (Zhang et al., 2016). This is changing as customers are having increased access to big data and information of product features, prices and services; they want to interact with companies that reach out to them as individuals (Brans, 2015).

B2B services have become dominant in developed countries. This can be seen from the Purchasing Managers Index (PMI) which gives a very good indication of economic activities in the manufacturing and services sector based on five major areas such as new orders, inventory levels, production, supplier deliveries and employment (Kamat

et al. 2019). PMI is used by manufacturers as well as suppliers to assist in management decisions. A PMI above 50 indicates expansion in the economic health. In September 2018 the United States (US) manufacturing PMI was 55.6 and the Chinese manufacturing PMI 51.3 indicating that both countries increased their purchasing and supply activities compared to the previous months (Trading Economics, 2018, Investing.com, 2018). Increase in PMI has been the average tendency in the US and China since the recession of 2008 and 2009. Organisations ignoring the growing manufacturing market and the importance of sustainable, trusted and loyal B2B relationships will wither.

Human and Hill (2016) has demonstrated the importance of positive interaction experiences as B2B relationships can be strengthened by loyalty with an intention to stay on as a customer and is positively associated with overall customer experience (involving customer interaction on various levels of the business).

2.3.2 B2B customer experience requirements

An increased focus on customer experience will require B2B companies to have a thoughtful approach towards future growth and bottom-line value of both companies by two-way interaction and a shared vision of success (Maguire and Hiscock, 2016). A strategy is required to recognise how to develop loyalty, manage value perception and focus on customer experience through a series of interactions known as customer experience management (CEM). CEM must focus on various points which include rational, emotional, sensorial, physical and spiritual levels (Choi et al., 2013).

In developing a strategy, a company should always keep recent research in mind. According to Maguire and Hiscock (Maguire and Hiscock, 2016), research shows that only 29% of B2B customers engage with the companies they do business with, therefore leaving a possibility of 71% of a company's current customers that is not loyal or is seeking business elsewhere. This proves that a lot of companies are ignoring the voice of the customer.

Hollyoake (2009) states that it is important for B2B companies to understand their customer relationships before starting with their customer experience initiative. As

many discussions on customer experience have begun with flawed assumptions (Maechler et al., 2016) companies should be clear with whom and where they want to develop customer experience at suitable business levels (Hollyoake, 2009). The relationship between the two companies should start at a base level around the expectations of the buyers' procurement teams which involves reliability, consistency, dependability problem resolution, appropriate contact, choice and flexibility. Only after meeting the deliverables of the base expectations consistently a B2B relationship can move to a 'bonded experience' (Hollyoake, 2009).

Maechler et al. (2019) state that customer mapping is required for improved B2B customer experience as key elements in customer satisfaction will differ for different customer groups. Customer satisfaction should be mapped for each customer group separately as a factor of their different functionalities to increase customer experience (Maechler et al., 2016).

"Internal control procedures, internal auditing (and) ... compliance requirements" (Maechler et al., 2016) is another culprit of increasing B2B customer journey complexity and can cause significant delays in the B2B interaction. Organisations should attempt to remove time-consuming control procedures to increase satisfaction (Maechler et al., 2016).

Digitisation such as self-service and online interfaces is a great potential for B2B organisations to impact the customer experience. Digitisation can assist to track the status of the B2B customer journeys in real time and serving as a platform for client applications (Maechler et al., 2016). Another suggestion of Maechler et al. (2016) to increase customer experience in B2B interactions is to "have greater transparency into the customer-experience-improvement process" (Maechler et al., 2016).

Some companies in B2B relationships have the ability to use Big Data to capture real-time data on end-users' experience when using products to enhance product quality and to develop new offerings (Zolkiewski et al., 2017). Other companies utilise social media in a B2B context to build relationships, target and gather prospective customers (Andersson and Wikström, 2017) while others use promotional strategies to motivate end-users to buy products (Hellman, 2005). Preikschas et al. (2017) investigated the

effects of dynamic capabilities and co-creation between organisations in B2B markets to influence customer retention (Preikschas et al., 2017). Coviello and Brodie (2001) showed in their research that marketing, to influence brand and financial outcomes (Swani et al., 2019) and to build brand and firm value (Ferguson and Mohan, 2019), in B2C and B2B, enterprises are very similar (Coviello Nicole, 2001). In the United States big B2B firms spend an estimated \$161 billion on advertising in 2016 (Ferguson and Mohan, 2019). Top B2B brands from various industries even utilise Twitter and other social media platforms for advertisement (Juntunen et al., 2019). Although B2B enterprises can utilise marketing and advertising effectively to increase their market share it is not necessarily the case for B2B enterprises in inelastic business markets. The use of common strategies and looking at direct customers by B2B organisations supplying into inelastic heavy industrial processes to grow will not be adequate (Thomas, 2016). There is also no value for suppliers in the heavy industry B2B environment to market their products and services to build brand and firm value to the end consumer or trend the end-consumers' customer experience. It is for this reason that suppliers in the large B2B environment should focus on the B2B transactional and relational relationships and understand the high complexity segmentation of large enterprises contribute to purchasing decisions.

2.4 CUSTOMER EXPERIENCE MODELS

The multidimensional aspect of customer experience can be seen in the various customer experience models available. The choice of model will depict on the type of data required to obtain the desired outcome. Table 3 gives a short description on some customer experience models available of which the SERVQUAL and EXQ are widely used to measure customer experience in B2C and B2B environments.

SERVQUAL is used for measuring service quality. Customer Experience Quality (EXQ) is used for measuring perceived customer experience rooted in behavioural theories (Kashif, 2016, Maklan and Klaus, 2011) and Net Promotor Score (NPS) is used to measure customer satisfaction and loyalty. Bough et al. (2017) suggest should companies be serious about customer experience to implement a rudimentary voice-of-the-customer system to collect feedback from customers on a regular basis. These customer journey systems should be able to analyse the information real-time by

advanced analytics of the data to identify root causes and predict the impact on future customer behaviours (Bough et al., 2017).

Table 2: Customer experience models designed or used by researchers

Customer experience model	Measures	Reference
Human activity modelling	Customer activities Support tools	(Teixeira et al., 2012)
Customer experience requirements	Customer's desired qualities of an experience - Affordability - Engagement - Content - Convenience - Reliability - Reward - Speed	(Teixeira et al., 2012)
Multilevel service design	Value constellation experience Service experience Service encounter experience	(Teixeira et al., 2012)
Customer experience quality (EXQ)	Product experience Outcome focus Moments-of-truth Peace of mind	(Deshwal, 2016, Rageh et al., 2013, Milman et al., 2017, Havíř, 2017, Klaus and Maklan, 2013)
Economics models	Value	(Benson, 1955)
Consumption experience model	Sensorial/Perceptual	(Havíř, 2017, Fornerino et al., 2006)

	Affective Physical/Behavioural Social Cognitive	
Conceptual model of customer experience	Social environment Service interface Retail atmosphere Assortment Price Customer experience in alternative channels Retail brand	(Havíř, 2017, Verhoef et al., 2009)
SERVQUAL	5 dimensions of service quality - Reliability - Responsiveness - Assurance - Empathy - Tangibility	(Parasuraman et al., 1988, Havíř, 2017)
E-S-QUAL	Efficiency Fulfilment System availability Privacy	(Havíř, 2017, Parasuraman et al., 2005)

Three-stage model of service consumption	Pre-purchase stage Service encounter stage Post-encounter stage	(Sultan, 2018, Tsiotsou and Wirtz, 2015)
Net promoter score (NPS)	Customer satisfaction Loyalty	(Mbama et al., 2018, Schneider et al., 2008, Laitinen, 2018)
Service profit chain (SPC)	Service quality Employee satisfaction Customer satisfaction Loyalty Profitability	(Mbama et al., 2018, Heskett et al., 1994)
Customer experience model	Sensorial Emotional Cognitive Pragmatic Lifestyle Relational	(Havíř, 2017, Gentile et al., 2007)

2.4.1 Uses of customer experience

The term “Customer experience” is appearing more frequently in corporate discussions, thus is becoming a bigger focus of companies (Batra, 2017) and is a leading management objective as customers have more interaction with firms through multiple channels and media, resulting in complex customer journeys (Lemon and Verhoef, 2016). Customers have huge control over the purchasing experience through technology, making their expectations clear to small businesses and to market leaders (Gorgoglione and Panniello, 2018). The arrival of the internet affected the way customers relate with and respond to offerings (Kumar and Anjaly, 2017).

A wide range of businesses do utilise customer experience, representing virtually every business with the biggest focus on retail and private banks, insurance firms, wealth management organisations and financial services, which of 80 percent increased their investment to enhance experience designs (Ponsignon et al., 2015). Firms, such as KPMG, Amazon and Google have chief customer experience officers, customer experience vice presidents, customer experience managers to manage the experience of their customers (Lemon and Verhoef, 2016); it is evident that customer experience management has emerged as a distinct profession (Keiningham et al., 2017).

In this experience economy era organisations need to respond to the increasing overall customer demand. Organisations need to focus on customers’ experiences as traditional product and service value proposition is not adequate to reach customers or create differentiation anymore (Jain et al., 2017). Many organisations’ executive teams have the wrong perception about how their customers experience their interaction and relationship; this leads them to “make decisions based on what they (think) customers expect of them” (Smilansky, 2017). Managerial actions and outcomes are largely the focus of customer experience instead of the underlying antecedents and consequences (McColl-Kennedy et al., 2015).

Gorgoglione and Panniello stated that companies do not compete on quality of services and products anymore but on the experience they deliver (Gorgoglione and Panniello, 2018) and it is contextualised whether an organisation chooses to influence the experience or not (McColl-Kennedy et al., 2015).

Although the study of Kaura (2013) indicated a positive relationship between price and customer satisfaction (Kaura, 2013) Maklan (2011) indicated that there is no significant relationship between price and brand when it comes to customer experience (Maklan and Klaus, 2011). Wasan (2018) documented that businesses are positively impacted by satisfied customers (Wasan, 2018) and the importance of customer experience should not be underestimated (Bagdare and Jain, 2013). Customers will switch suppliers as soon as they have a negative customer experience (Almoraish et al., 2016). Customer experience can be used to reinforce brand experience as brand experience forms part of consumers' perception of customer experience (Tsai et al., 2015). Experiential dimensions evoked by a brand will create a tight bond between the brand and the customer, creating a greater customer experience and resulting in brand loyalty (Ramaseshan and Stein, 2014).

Research conducted by Accenture (cited by Lemon and Verhoef, 2016) indicated that improvement of customer experience was the number one ranking of executives' top priorities (Lemon and Verhoef, 2016). A study performed by Gartner (cited by Keiningham et al., 2017) finds that 89 percent of organisations planned to compete on the basis of customer experience by 2017 (Keiningham et al., 2017). IBM valued their yearly lost sales of \$83 billion to be the cause of poor and inconsistent customer experience in a 2013 survey (Gorgoglione and Panniello, 2018). A study performed under e-commerce firms showed a positive association between a measure of shareholder value, measured as price-to-sales ratio, and a score of customer experience. The study indicated that a viable long-term competitive advantage is obtained by improving online customer experience (Rajgopal et al., 2000).

Customer churn can have a big impact on enterprise value. Utilising traditional satisfaction data to prevent customers seeking substitutes is not adequate to identify the root cause for leaving. As customer experience drives consumer behaviour – it can be used to act in advance to prevent customer churn (Kon, 2004).

Customer experience is also used to increase customer advocacy. Cleveland (2017) defines customer advocacy as the actions businesses take to focus the organisation's focus on doing what is best for their customers, in return customers will be loyal and

advocate the organisation's products, services and brand (Cleveland, 2017). Customer advocacy firms tactically influence customers to voluntarily and proactively convey their experience to other people by integrating marketing techniques into customer experience by facilitating customers to become actively involved with the brand (Lawer, 2006).

Table 3 provides a summary of the literature review on the antecedents and their respective measuring criteria. Each criterion's source of origin in the literature is also listed.

Table 3: Customer experience survey questions with indication of measurement and outcome

Antecedent	Question	Model	Raw data measure	Outcome	Adapted from
Commitment	I am a loyal customer to one specific service provider	EXQ	Past experience	Loyalty	(Klaus, 2010)
	I have developed a good relationship with one specific service provider	EXQ	Past experience	Loyalty	(Klaus, 2010)
	I choose between different companies that provide a similar service based on price alone	EXQ	Price perception	Loyalty	(Klaus, 2010)
	I choose between different companies that provide a similar service based on quality of goods/services alone	EXQ	Service and product quality	Loyalty	(Klaus, 2010, Naidoo, 2008)
	I choose between different companies that provide a similar service based on attributes without consideration of price and quality	EXQ	Attributes (list)	Loyalty	(Klaus, 2010)
	The way a service provider dealt with me when things went wrong will depict if I continue to do business with him	EXQ	Employees	Loyalty	(Klaus, 2010)
	If an advisor at a service provider changes company, I will consider moving my business to the new company	EXQ	Employees	Loyalty	(Klaus, 2010)
	I will stay with a service provider though I'm not 100% satisfied as I am not confident to use an alternative service provider	EXQ	Attributes (list) Past experience Peace of mind Outcome focus	Loyalty	(Klaus, 2010)
	I do not care about the relationship I have with a service provider as long as they supply products/services as agreed	EXQ	Service and product quality Brand name	Loyalty	(Klaus, 2010, Naidoo, 2008)
	I will utilise a specific service provider as long as they can guarantee increased production/productivity even at an elevated cost				Self
	I will continue to use a specific provider as they always use the latest innovative technology				Self

Trust	I want to deal with a company that reduces my risks	EXQ	Peace of mind	Commitment	(Klaus, 2010)
	I prefer to utilise a certain service provider that will assist me to avoid risk				Self
	I will award a contract to a service provider because he has predictive analysis tools				Self
	It is important that the service provider understands my processes	EXQ SERVQUAL	Peace of mind	Commitment	(Klaus, 2010, Killip, 2007)
	It is important that the service provider understands my problems and concerns	EXQ SERVQUAL	Peace of mind	Commitment	(Klaus, 2010, Killip, 2007)
	It is important that my service providers are looking out for my needs	EXQ SERVQUAL	Peace of mind	Commitment	(Klaus, 2010, Killip, 2007, Soloiman, 2013)
	I will award a contract to a service provider because he has my best interest at heart	SERVQUAL	Peace of mind	Commitment	(Killip, 2007)
	I will contact a service provider because it was recommended by an associate or friend	EXQ	Word-of-mouth Attributes: Environment	Commitment	(Klaus, 2010, Ferguson, 1977, Krüger, 2014)
	I would choose a service provider because I have more knowledge of its products/services compared to other service providers		Attributes: Product information	Commitment	Self
	I prefer a service provider that shares cost, delivery status and technical information on a regular basis				Self

Service /product quality	I don't want to shop around for the service provider with the best offer	EXQ	Attributes: Time pressure	Customer experience	(Klaus, 2010, Naidoo, 2008)
	My service provider's expertise is important to me	EXQ	Attributes: Technical capability Peace of mind	Customer experience	(Klaus, 2010, Naidoo, 2008, Krüger, 2014)
	It is important that my service provider keeps my up-to-date about new products	EXQ	Attributes: Communication Peace of mind	Customer experience	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Hill, 2015)
	It is important that my service provider keeps me up-to-date about new technologies	EXQ	Attributes: Communication Peace of mind	Customer experience	(Klaus, 2010, Naidoo, 2008, Hill, 2015)
	It is important that my service provider keeps me up-to-date about changes in my process/plant	EXQ	Attributes: Communication Peace of mind Outcome focus	Customer experience	(Ferguson, 1977, Klaus, 2010, Naidoo, 2008, Hill, 2015)
	When I consider purchasing a product, service or solution supplier responsiveness will determine the supplier I choose				Self
	The service or solution advice I received from the supplier will determine the supplier I choose				Self
	It is important that the service provider is a good listener	EXQ	Attributes: Communication Employees	Customer experience	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Hill, 2015)
	It is important that the service provider is polite	EXQ SERVQUAL	Attributes: Communication Employees	Customer experience	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Hill, 2015, Killip, 2007)

	I will use a service provider because of its employees' caring attitude	EXQ SERVQUAL	Employees Attributes: Communication Risk	Customer experience	(Hill, 2015, Killip, 2007)
	I will change from service provider if another service provider's employees are more knowledgeable	SERVQUAL	Employees Attributes: Communication Risk	Customer experience	(Killip, 2007, Soloiman, 2013)
	It is important to me to be guided through a service provider's processes	EXQ SERVQUAL	Attributes: Communication	Customer experience	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Hill, 2015, Soloiman, 2013)
	It is important that the service provider makes me feel comfortable	EXQ	Attributes: Communication Employees	Customer experience	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Hill, 2015)
	I prefer a supplier that can ensure continuity of supply		Attributes: Communication Employees Peace of mind Outcome focus	Customer experience	(Naidoo, 2008, Ferguson, 1977, Hill, 2015)
	I prefer a supplier where I receive regular visits by a representative to solve specific problems or a service complaint	SERVQUAL	Attributes: Communication Relationship Employees	Customer experience	(Ferguson, 1977, Naidoo, 2008, Anneli, 2005, Soloiman, 2013)
	I prefer a supplier that gives me sufficient face-to-face time	SERVQUAL	Attributes: Communication Relationship Employees	Customer experience	Self (Ferguson, 1977, Anneli, 2005, Hill, 2015, Soloiman, 2013)

	I am more committed to a service provider who invests in continuous improvement and innovation	EXQ	Product/service quality	Customer experience	(Sayed, 2014)
	I am more committed to a service provider who invests in product/service development	EXQ	Product/service quality	Customer experience	(Sayed, 2014)
	I am more committed to a service provider who invests in customer training	EXQ	Product/service quality	Customer experience	(Sayed, 2014)
	I would rather use a service provider whose employees have good people skills	EXQ SERVQUAL	Attributes: Communication Relationship	Customer experience	(Sayed, 2014, Ferguson, 1977, Anneli, 2005, Hill, 2015, Krüger, 2014, Killip, 2007)
	I will choose a service provider on its quotation accuracy	EXQ SERVQUAL	Service quality	Customer experience	(Hill, 2015, Killip, 2007, Soloiman, 2013)
	I will choose a service provider on its invoice accuracy	EXQ SERVQUAL	Service quality	Customer experience	(Hill, 2015, Killip, 2007, Soloiman, 2013)
	I will award a contract to a service provider because they are known to be proactive	EXQ SERVQUAL	Service quality	Customer experience	(Hill, 2015, Killip, 2007)
	I will buy from a service provider by its ability to deliver on time	SERVQUAL	Service quality	Customer experience	(Killip, 2007, Soloiman, 2013)
	I will award a contract to a service provider because his installations are visually more appealing	SERVQUAL	Service/product quality	Customer experience	(Killip, 2007)
	I will choose a certain service provider as his products improves my processes				Self
	I prefer a service provider that uses digital and on-line monitoring as how to deal with their sales people				Self
	I prefer a service provider who has products linked to the IoT (Internet of things)				Self

Satisfaction	I won't go and look for another service provider if my current service providers are taking good care of me	EXQ SERVQUAL	Attributes: Relationship Advice Technical capability	Trust, commitment	(Klaus, 2010, Naidoo, 2008, Anneli, 2005, Hill, 2015, Krüger, 2014, Killip, 2007)
	It is important that my service providers are flexible in dealing with me	EXQ	Attributes: Time pressure Product range	Trust, commitment	(Klaus, 2010, Naidoo, 2008, Sayed, 2014, Krüger, 2014)
	I need guidance from my service provider to enable me to make a purchasing decision	EXQ	Attributes: Advice	Trust, commitment	(Klaus, 2010, Naidoo, 2008)
	I will change from one service provider to another although I'm satisfied with the service I have received up to date	EXQ	Attributes (list)	Trust, commitment	(Klaus, 2010, Sayed, 2014)
	The overall experience I receive from my service provider depicts my satisfaction with him	EXQ	All raw data	Trust, commitment	(Klaus, 2010)
	I will not do business with a forceful sales person	EXQ	Attributes: Relationship Communication	Trust, commitment	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Anneli, 2005, Hill, 2015)
	I'm likely to say good things about a customer I'm satisfied with	EXQ	Word-of-mouth	Trust, commitment	(Klaus, 2010)
	I will recommend a good service provider to an associate	EXQ	Word-of-mouth Attributes: Environment	Trust, commitment	(Klaus, 2010, Hill, 2015, Ferguson, 1977, Booysen, 2015, Krüger, 2014)

	I will recommend a good service provider to people outside my organisation	EXQ	Word-of-mouth Attributes: Environment	Trust, commitment	(Klaus, 2010, Hill, 2015, Ferguson, 1977, Booysen, 2015, Krüger, 2014)
	I prefer to deal with only one designated contact of a service provider company	EXQ	Attributes: Relationship Communication Time pressure Delivery	Trust, commitment	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Anneli, 2005, Hill, 2015, Krüger, 2014)
	It is important to receive offers from different service providers	EXQ	Peace of mind	Trust, commitment	(Klaus, 2010)
	All I care about is which service provider gives me the lowest price	EXQ	Price perception	Trust, commitment	(Klaus, 2010)
	I do not make my decision on price alone, there are other important factors that I also take into consideration	EXQ	Price perception	Trust, commitment	(Klaus, 2010)
	All I care about is which service provider can provide me with the latest technology	EXQ SERVQUAL	Attributes: Technology	Trust, commitment	(Klaus, 2010, Naidoo, 2008, Killip, 2007, Soloiman, 2013)
	All I care about is which service supplier has a sufficient range to match my requirements	EXQ	Attributes: Product range	Trust, commitment	(Naidoo, 2008, Klaus, 2010)
	Product quality is key when I make purchasing decisions		Product quality	Trust, commitment	(Naidoo, 2008)

	Dealing with different sales associates from one service provider company is not 'customer-friendly'		Attributes: Relationship Communication Peace of mind	Trust, commitment	(Naidoo, 2008, Ferguson, 1977, Anneli, 2005, Hill, 2015)
	I prefer a service provider that takes care of everything during a business transaction	EXQ	Attributes: Delivery Time pressure Peace of mine Outcome focus	Trust, commitment	(Klaus, 2010, Ferguson, 1977, Naidoo, 2008)
	I prefer a service provider that can take care of problems outside his scope of work	EXQ SERVQUAL	Attributes: Technical capability Time pressure Delivery	Trust, commitment	(Klaus, 2010, Naidoo, 2008, Ferguson, 1977, Sayed, 2014, Hill, 2015, Killip, 2007)
	Price is a key differentiator when purchasing products		Price perception	Trust, commitment	(Naidoo, 2008)
	I will more likely use a service provider that responds quickly to my enquiries	EXQ SERVQUAL	Attributes: Time pressure Technical capability Delivery Communication	Trust, commitment	(Sayed, 2014, Naidoo, 2008, Ferguson, 1977, Klaus, 2010, Hill, 2015, Killip, 2007, Soloiman, 2013)

	I prefer to use a specific service provider because of the expertise of its sales team	EXQ SERVQUAL	Service/product quality Attributes: Technical capability	Trust, commitment	(Sayed, 2014, Naidoo, 2008, Krüger, 2014, Killip, 2007)
	I prefer a specific service provider as their systems are more user friendly in comparison to other service providers	EXQ SERVQUAL	Service/product quality Attributes: Technical capability Technology	Trust, commitment	(Sayed, 2014, Naidoo, 2008, Hill, 2015, Krüger, 2014, Soloiman, 2013)
	I would rather purchase from a service provider where I can place orders quickly and efficiently	EXQ SERVQUAL	Service/product quality Attributes: Technical capability Technology	Trust, commitment	(Hill, 2015, Naidoo, 2008, Soloiman, 2013)
	I will award a contract to a service provider that is action orientated	EXQ	Service/product quality	Trust, commitment	(Booyesen, 2015)
	I prefer a service provider that gives me customised information and reports				Self

3. PROBLEM STATEMENT

Suppliers in heavy industry cannot rely only on their customer services departments to ensure heavy industrial customers are satisfied with their delivered products and services as required. Although price and product quality and specialised services are of importance to heavy industrial enterprises they require more from their suppliers, as heavy industrial enterprises want to have a good experience during business interactions with their suppliers. Limited heavy industrial suppliers seem to incorporate customer experience as part of their strategies, either because they do not understand how they can deliver a good experience to their customers, which components to deliver on, or they simply do not understand the value customer experience can add in their competitiveness (Wollan, 2016).

Modern research shows that customer experience is perceived to be the third most important driver of buying behaviour in a B2C environment; that is, after price and product quality (Clark and Kinghorn, 2018). Customer experience, as driver of buying behaviour in consumer markets is well established, researched and also understood. Many companies do implement managerial interventions to enhance customer experience as part of their competitive strategy. This is, however, not the case in industrial market strategies where B2B marketing realise (Lilien, 2016). Limited B2B organisations seem to incorporate customer experience as part of their strategies, either because they do not understand how they can deliver a good experience to their customers, or they simply do not understand the value customer experience can add in their competitiveness (Wollan, 2016). This is the problem B2B organisations face with customer experience as potential competitive management strategy.

4. RESEARCH QUESTIONS AND RESEARCH OBJECTIVES

The problem statement on non-comprehension of customer experience, culminates from three research questions. They are:

4. Which antecedents are important for the customer experience in the complexed and segmented business environment of large enterprises in heavy B2B industry?
5. Can customer experience be a differentiator for purchasing decisions for large enterprises in the heavy B2B industry?
6. How can customer experience be managed in the heavy B2B industry?

Based on the research questions, the study formulated the following research objectives:

- Identify the relevant antecedents of customer experience in the heavy B2B industry environment from the literature.
- Develop relevant measuring criteria from the literature to measure the respective antecedents of customer experience in the heavy B2B industry environment.
- Validate the antecedents and measuring criteria statistically.
- Determine the importance of the customer experience antecedents in the heavy B2B industry environment.
- Examine if the demographic profiles age, experience or managerial position play a role in customer experience.
- Develop a model to manage customer experience in a heavy industry.

5. HYPOTHESES

H0: There is no positive relationship between customer experience antecedents that influence buying behaviour intention in the heavy B2B market.

HA₁: The antecedents of customer experience differ in importance towards their influence on buying behaviour intention in the heavy B2B market.

HA₂: The antecedents of customer experience towards buying behaviour intentions are influenced by the demographic profiles age, experience or managerial position in the heavy B2B market.

6. RESEARCH METHODOLOGY

Customer experience cannot be measured adequately with a single set of measures across industries and sectors (Lemon and Verhoef, 2016). Heavy industrial companies of interest purchasing decisions are influenced in various degrees and weights by each segment or department.

To achieve the research objectives a literature review was performed to understand the concept of customer experience and the role it plays in business environments. Distinction was made during the literature review between customer experience in the B2C environment and customer experience in the B2B environment. Antecedents of

B2B customer experience were identified from literature as commitment, trust, service and product quality and satisfaction. Existing B2C experience models, SERVQUAL and EXQ, were adapted to match the identified B2B antecedents. SERVQUAL is a quality management model to measure service quality by measuring reliability, assurance, empathy, tangibility and responsiveness while EXQ measures perceived customer experience quality deeply rooted in behavioural theories (Kashif, 2016). Adapted customer experience models and own experience were used to compile research question for use in the quantitative study.

The literature study identified four key antecedents from the theory, namely *Commitment*, *Trust*, *Product and Service Quality*, and *Satisfaction* to determine customer experience. This theoretical model is shown in Figure 1 below. These antecedents are measured by 66 measuring criteria. Table 1 provides a summary of the measuring criteria which was employed in the survey to gather data regarding the customer experience of the B2B customers. The table also shows the original models that the antecedents and the measuring criteria originated from. The table also shows the literature origins of each one of the measuring criteria, and to what antecedent the criteria contributes to. The antecedents and respective measuring criteria are summarised in Table 3.

Participants during the study were full-time employees working in a commercial, technical, mechanical, electrical, instrumentation or production department at an international heavy industrial company. Research participants had to be knowledgeable and actively involved (Given, 2008) in purchasing decisions and/or awarding contracts to service providers as a prerequisite and criteria for the study. The total population available to the study is relatively small and restraint by the criteria required to be knowledgeable and involved in heavy industry's purchasing decisions. The low number of qualified respondents serves as a constraint to the study because, not only is it difficult to collect data in a B2B environment (Lilien, 2016), but the population is also small. As a result, the population was targeted; no sample was drawn.

Identified prospective respondents were identified from the Buckman customer contact list followed by distribution of online questionnaires through Microsoft survey

forms for automatic capturing of the data. Respondents were requested to answer the questions honestly and timeously.

The type of quantitative data collected is discreet or also called attribute-ordinal data with some value inherent in the item on the questionnaire and set up according to the 5-point Likert scale.

7 RESULTS

The results consist of a demographic profile of the respondents, the validation of the antecedents and their respective measuring criteria, the determination of the reliability and internal consistency of the data, and then the importance of the antecedents as measured by the criteria.

7.1 Profile of respondents

The demographic profile of the respondents is shown in the table below. Only selected variables were used to gather data because of their potential influence on intention to buy. The respondents' profile is shown in table 4.

Table 4: Profile of the respondents

Department of operation					
		Frequency	Percent	Valid Percent	Cum. %
Valid	1 Commercial/Finance	5	10.9	10.9	10.9
	2 Electrical	5	10.9	10.9	21.7
	3 Mechanical	5	10.9	10.9	32.6
	4 Operations	13	28.3	28.3	60.9
	5 Technical/Engineer	18	39.1	39.1	100.0
	Total	46	100.0	100.0	
Position (employment)					
		Frequency	Percent	Valid Percent	Cum. %
Valid	1 Junior Management	4	8.7	8.7	8.7
	2 Middle Management	14	30.4	30.4	39.1
	3 Plant Owner	5	10.9	10.9	50.0
	4 Senior Management	11	23.9	23.9	73.9
	5 Supervisor	12	26.1	26.1	100.0
	Total	46	100.0	100.0	

Years in level of position

		Frequency	Percent	Valid Percent	Cum. %
Valid	1 >20	6	13.0	13.0	13.0
	2 1 - 5	12	26.1	26.1	39.1
	3 11 - 15	12	26.1	26.1	65.2
	4 16 - 20	7	15.2	15.2	80.4
	5 6 - 10	9	19.6	19.6	100.0
	Total	46	100.0	100.0	

Age group

		Frequency	Percent	Valid Percent	Cum. %
Valid	1 20 - 29	3	6.5	6.5	6.5
	2 30 - 39	11	23.9	23.9	30.4
	3 40 - 49	22	47.8	47.8	78.3
	4 50 - 59	9	19.6	19.6	97.8
	5 60 - 69	1	2.2	2.2	100.0
	Total	46	100.0	100.0	

Level (weight) of influence in purchasing decisions

		Frequency	Percent	Valid Percent	Cum. %
Valid	1 <5	4	8.7	8.9	8.9
	2 >50	14	30.4	31.1	40.0
	3 20 - 34	9	19.6	20.0	60.0
	4 35 - 50	13	28.3	28.9	88.9
	5 5 - 19	5	10.9	11.1	100.0
	Total	45	97.8	100.0	
Missing	6	1	2.2		
Total		46	100.0		

From the table it is evident that the majority of the respondents are operational and technical in a management or supervisory position, and between 30 and 50 years old. Their influence in purchasing decisions are equally spread.

Table 5: Validity results of factor analysis on individual loyalty antecedents

COMMITMENT		Var %	TRUST		Var %
Loyalty		23.0	Competence/problem resolution		31.1%
Alternative supplier		18.4	Communication		19.9%
Value		16.1	Importance		15.7%
Variance explained		57.5%	Variance explained		66.7%
SERVICE/PRODUCT PRICE		% Var	SATISFACTION		% Var
Competence		13.2%	Customer engagement/value extraction		15.6%
Intimacy		12.9%	Probability to recommend		13.2%
Service quality		12.8%	Continuous improvement (CI)		9.9%
Informed		12.6%	Personal attention		7.7%
Relationship quality/Intimacy		9.1%	Relationship quality		7.0%
Intimacy		7.9%	Interdependence		6.6%
Speed of response		7.1%	Relationship quality/Intimacy		6.2%
			Visual appearance		5.7%
			Price		5.1%
Variance explained		75.6%	Variance explained		77.1%

7.2 Validity of the questionnaire

Content validity was ascertained by distributing the questionnaire to five managers. Their corrections and suggestions have been implemented in the questionnaire design and content. Next, construct validity was used to statistically assess the validity of the questionnaire. This was done by using exploratory factor analysis which determined if the measuring criteria indeed do measure each of the customer experience antecedents. The results (see Table 5) showed that all four the customer experience antecedents are valid. Also, the results showed that the theoretical model measures more than just the four antecedents, and that these antecedents consist of sub-antecedents. This is satisfactory as each antecedent can now be measured more accurately across the sub-antecedents. Each sub-antecedent and its variance explained appears in Table 5.

7.3 Reliability of the data and the

The reliability of the data was determined by using the Cronbach alpha coefficient (α). Coefficients are interpreted to provide a measure of the internal consistency of a test or scale and is typically used to determine the reliability of multiple-question Likert scale surveys and is expressed as a value between zero and one (Tavakol and Dennick, 2011, Stephanie, 2014b). Likert scale questions measure latent variables which is unobservable such as a person's conscientiousness, neurosis and openness. Cronbach's Alpha is used to determine if the designed test is measuring the variable of interest accurately (Stephanie, 2014b). The reliability results of the four antecedents appear in Table 6 below.

Table 6: Reliability statistics

Antecedent	Cronbach's Alpha	N of Items
Total data set	0.918	68
Commitment	0.476	9
Trust	0.725	8
Product and Service quality	0.868	23
Satisfaction	0.832	26

From the table it is evident that all the antecedents except *Commitment* ($\alpha=0.48$), have satisfactory reliability coefficients ($\alpha \geq 0.70$) (Field, 2009).

It is also important to determine if an adequate sample (or in this case an adequate response from the population) realised. Kaiser, Meyer and Olkin's test of sample adequacy statistically tests the responses for adequacy. The results appear in Table 7.

Table 7: Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's sphericity test

		All data	Commit- ment	Trust	Product Service quality	Satis- faction
KMO Measure of Sampling Adequacy.		.579	.522	.794	.639	.579
Bartlett's Test of	Approx. Chi-Square	699.350	71.447	163.181	483.230	699.350
Sphericity	df	378	36	45	210	378
	Sig.	.000	.000	.000	.000	.000

The KMO value is interpreted to determine how suited the data is for factor analysis by measuring "sample adequacy for each variable in the model and the complete model. The statistic is a measure of the proportion of variance among variable that might be common variance" (Stephanie, 2016). A proportion between 0.8 – 1 indicates the sampling is adequate. A proportion close to zero is an indication that the correlations are widespread and is unacceptable for factor analysis (Stephanie, 2016).

From the table it is evident that the antecedents *Commitment* and *Satisfaction* have marginally acceptable adequacy levels ($KMO \geq 0.50$), while Product and service quality has an acceptable ($KMO \geq 0.60$) level of responses. Only *Trust* has a satisfactory KMO value which exceeds 0.70 (Field, 2009).

Bartlett's test of sphericity determines if there is redundancy between variables, that can be condensed with some factors, by comparing a matrix of Pearson correlations to the identity matrix (Stephanie, 2014a). The test provides a chi-square output and should be < 0.05 to be considered significant. In short, if the test indicates the item correlation is not an identity matrix, factor analysis can be performed (Taherdoost et al., 2014).

From the table above it is clear that none of the antecedents is considered to show suitable significance or that the data can be used for multivariate analysis.

7.4 Importance of the antecedents

The antecedents of customer experience and their measuring criteria are listed in the table below. The table also shows the mean scores and standard deviations of the antecedents and their respective criteria.

Numerous researches have applied the mean values of the Likert scale in their studies. Mean values of the Likert scale are interpreted as suggested by Bisschoff and Hough (1995):

- < 3: Lower importance; Dissatisfaction; Immediate action required
- 3.0 - 3.5: Important; Satisfaction; Develop to become excellent
- >3.5: Very important; Very satisfied/Excellent; Maintain to stay on top

The standard deviation is used as a secondary measure because it indicates to what extent respondents agree with the specific measuring criterion (Bisschoff & Hough 1995).

Table 8: Descriptive statistics of customer satisfaction antecedents

Antecedents	Mean	Std. Dev.
B1. Commitment	3.49	1.033
B1.1: I am a loyal customer to one specific service provider	2.52	1.110
B1.2: I have developed a good relationship with one specific service provider	4.07	0.827
B1.3: I choose between different companies that provide a similar service based on price alone	2.63	0.853
B1.4: I choose between different companies that provide a similar service based on quality of goods/services alone	2.22	0.964
B1.5: I choose between different companies that provide a similar service based on attributes that do not include price or quality	2.51	1.058
B1.6: The way a service provider dealt with me when things went wrong will determine if I continue to do business with him.	4.30	0.511
B1.7: If an advisor at a service provider changes company, I will consider moving my business to the new company.	4.32	0.668
B1.8: I will stay with a service provider although I'm not 100% satisfied as I am not confident to use an alternative service provider.	4.41	0.541
B1.9: I do not care about the relationship I have with a service provider as long as they supply products/services as agreed.	4.39	0.614
B2. Trust	3.76	1.133
B2.1: I want to deal with a company that reduces my risks.	3.63	1.142
B2.2: It is important that the service provider understands my processes.	3.13	0.957

B2.3: It is important that the service provider understands my problems and concerns.	3.63	0.799
B2.4: It is important that my service providers are looking out for my needs.	3.54	0.887
B2.5: I will award a contract to a service provider because he has my best interest at heart.	4.00	0.596
B2.6: I will contact a service provider because it was recommended by an associate or friend.	4.07	0.574
B2.7: I would choose a service provider because I have more knowledge of its products/services compared to other service providers.	2.50	0.937
B2.8: I prefer a service provider that:		
B2.8.1: Shares cost	4.39	0.537
B2.8.2: Shares delivery status on a regular basis	4.27	0.580
B2.8.3: Shares information on a regular basis	4.43	0.544
B3. Service/Product quality	3.89	0.997
B3.1: I don't want to shop around for the service provider with the best offer.	4.35	0.766
B3.2: My service provider's expertise is important to me.	4.39	0.614
B3.3: It is important that my service provider keeps me up-to-date about new products.	3.87	0.778
B3.4: It is important that my service provider keeps me up-to-date about new technologies.	3.60	0.837
B3.5: It is important that my service provider keeps me up-to-date about changes in my process/plant.	3.59	0.909
B3.6: It is important that the service provider is a good listener.	3.96	0.556
B3.7: It is important that the service provider is polite.	3.85	0.729
B3.8: I will use a service provider because of its employees' caring attitude.	4.37	0.572
B3.9: I will change from service provider if another service provider's employees are more knowledgeable.	4.24	0.736
B3.10: It is important to me to be guided through a service provider's processes.	3.89	0.823
B3.11: It is important that the service provider makes me feel comfortable.	4.39	0.577
B3.12: I prefer a supplier that can ensure continuity of supply.	4.30	0.511
B3.13: I prefer a supplier where I receive regular visits by a representative to solve specific problems or a service complaint.	3.96	0.788
B3.14: I prefer a supplier that gives me sufficient face to face time.	3.83	0.709
B3.15: I am more committed to a service provider who invests in continuous improvement and innovation.	3.85	0.894
B3.16: I am more committed to a service provider who invests in product/service development.	3.83	0.797
B3.17: I am more committed to a service provider who invests in customer training.	3.74	0.801
B3.18: I would rather use a service provider whose employees have good people skills.	4.15	0.595
B3.19: I will choose a service provider on its quotation accuracy.	3.12	0.900
B3.20: I will choose a service provider on its invoice accuracy.	3.65	0.994
B3.21: I will award a contract to a service provider because they are known to be proactive.	4.04	0.595
B3.22: I will buy from a service provider by its ability to deliver on time.	3.49	0.869
B3.23: I will award a contract to a service provider because his installations are visually more appealing.	2.98	1.022
B4. Satisfaction	3.76	1.139
B4.1: I won't go and look for another service provider if my current service providers are taking good care of me.	4.07	0.646
B4.2: It is important that my service providers are flexible in dealing with me.	3.74	1.219
B4.3: I need guidance from my service provider to enable me to make a purchasing decision.	4.24	0.480
B4.4: I will change from one service provider to another though I'm satisfied with the service I have received up to date.	4.28	0.455

B4.5: The overall experience I receive from my service provider determine on my satisfaction with him.	4.07	0.646
B4.6: I will not do business with a forceful sales person.	3.30	0.916
B4.7: I'm likely to say good things about a service provider I'm satisfied with.	4.12	0.526
B4.8: I will recommend a good service provider to an associate.	2.13	0.859
B4.9: I will recommend a good service provider to people outside my organisation.	4.30	0.662
B4.10: I prefer to deal with only one designated contact person at a service provider's company.	2.76	0.993
B4.11: It is important to receive offers from different service providers.	3.13	1.024
B4.12: All I care about is which service provider gives me the lowest price.	4.04	0.595
B4.13: I do not make my decision on price alone, there are other important factors that I also take into consideration.	3.18	1.007
B4.14: All I care about is which service provider can provide me with the latest technology.	3.96	0.595
B4.15: All I care about is which service supplier has a sufficient product range to match my requirements.	3.59	0.884
B4.16: Product quality is key when I make purchasing decisions.	3.20	0.869
B4.17: Dealing with different sales associates from one service provider company is not 'customer-friendly'.	4.15	0.595
B4.18: I prefer a service provider that takes care of everything during a business transaction.	3.72	0.750
B4.19: I prefer a service provider that can take care of problems outside his scope of work.	3.74	0.743
B4.20: Price is a key differentiator when purchasing products.	4.01	0.683
B4.21: I will more likely use a service provider that responds quickly to my enquiries.	4.17	0.608
B4.22: I prefer to use a specific service provider due to the expertise of its sales team.	4.00	0.760
B4.23: I prefer a specific service provider as their systems are more user friendly in comparison to other service providers.	3.74	0.743
B4.24: I would rather purchase from a service provider where I can place orders quickly and efficiently.	4.02	0.683
B4.25: I will award a contract to a service provider that is action orientated.	4.17	0.608
B4.26: I prefer a service provider that gives me customised information and reports.	4.00	0.760

The table shows, with regard to the four antecedents of customer experience, that:

7.4.1 Commitment

Commitment is the effort customers make to use a product in terms of resources (Gentile et al., 2007). From table 8 commitment showed satisfactory performance (3.49). From statement B1.8 "I will stay with a service provider though I'm not 100% satisfied as I am not confident to use an alternative service provider." a mean of 4.41 out of 5 were achieved. Though the mean was of average score it is clear that certain aspects of the antecedent commitment is of importance to customer experience.

7.4.2 Trust

Customers follow on experiences are influenced by trust. Trust develops over a period of time and influences experience as it reduces attention paid to monitor a relationship and cognitive effort (Lemon and Verhoef, 2016). Although the Likert mean for trust is 3.76 it is clear from statement B2.8.3 “Shares information on a regular basis” that customers do trust suppliers that share information on a regular basis more.

7.4.3 Service/product quality

According to the results obtained service and product quality is of high importance (3.89). Quality needs to be defined in reference to customers’ requirements (Rowley, 1999). It is clear that the accompanying products and services are important attributes to customer experience in the heavy industry because it put customers at ease regarding the value proposition.

7.4.4 Satisfaction

Customers in heavy industry deem satisfaction of high importance (3.76) serving as an antecedent of customer experience. Satisfaction is influenced by the duration of the relationship as there is a strong relationship between duration of a customer relationship and more experienced customers (Dagger and O'Brien, 2010). Experienced customers are also more likely to advocate for suppliers as indicated by statement B4.9: I will recommend a good service provider to people outside my organisation.

The results are discussed and contextualised with other studies next.

8 DISCUSSION OF RESULTS

Loyalty, alternative supplier and value were identified in the study as antecedents of commitment in B2B relationships. This is partially supported by the model of Morgan and Hunt (1994) who stated that the antecedents of commitment in relationship marketing is relationship termination costs where the terminating party will have switching costs to seek an alternative relationship, relationship benefits where firms continuously seek products, processes and technologies to add value, shared values

and trust (Morgan and Hunt, 1994). The outcome of the study is also partially supported by the model of Pritchard et al. (1999) information, involvement when self-images or values are identified with a particular brand choice and freedom of choice (Pritchard et al., 1999). Baptista and Mazzon (2011) study in the internet retail sector revealed no correlation with the study performed and identified the antecedent of commitment as satisfaction which is supported by the sub-antecedents of quality and reliability (Baptista and Mazzon, 2011). Ha and Muthaly (2008) have identified the same antecedents for commitment as Baptista and Mazzon (2011) in their study of retailer-partner relationships (Ha and Muthaly, 2008) as well as Čater and Čater (2010). A study performed by Shi (2014) identified the impact of customer values as an antecedent of brand page commitment on social networking sites (Shi, 2014). The study performed by Shi (2014) also correlates partially with the outcome of this study. Yanamandram and White (2010) identified in a study performed in B2B services the antecedents of commitment as dependence, benefit-loss costs, evaluation costs, learning costs, sunk costs and interpersonal relationships (Yanamandram and White, 2010). The study of Yanamandram and White (2010) can also be stated to partially correspond with the outcome of this study in terms of interpersonal relationships and loyalty. Simmons and Clayton (2010) stated in their study that dialogue initiation and frequency of responding are antecedents of commitment to a B2B value chain (Simmons and Clayton, 2010). The antecedents of commitment in B2B environments were identified by Jounie-Rivier (2017) as customer benefits in terms of customers' requirements and improved customer knowledge, organisational sacrifices or being accustomed to involving partners in projects (Jouny-Rivier, 2017). The results of this study are consistent with the finding of Jounie-Rivier (2017) that value is added by collaboration with business partners and the development of knowledge. Table 9 gives a short summary of researchers' perceptions of antecedents of commitment.

The antecedents of trust have been identified in this study as competence and problem resolution, communication and importance. The results are partially similar to those obtained by Hong and Cho (2011) who identified the antecedents of trust as competence, benevolence and integrity (Hong and Cho, 2011), although competence showed little influence on trust. The field of study of Hong and Cho (2011) might contribute a lot to the low influence of competence on trust as it was performed in the e-marketplace where consumers "are more interested in the willingness to accept

returns and process refunds” (Hong and Cho, 2011). Morgan and Hunt (1994) identified the antecedents of trust as shared values, communication and absence of opportunistic behaviour (Morgan and Hunt, 1994). Arifin (2015) divided the antecedents of trust in antecedents of initial trust consisting of a firm’s size; relational norm and institutional factor; word-of-mouth and referral; brands, reputation and familiarity; similarity and likeability; and power, and antecedents of gradual trust as relationship specific investment and willingness to customise; experience, perceived quality and satisfaction; opportunism; shared values and bonding strategies; expertise and selling techniques; communication, frequency of interaction and information sharing; length of relationship; dependability; integrity and benevolence; and flexibility and friendliness (Arifin, 2015). From the study of Arifin (2015) similarities can be drawn with regards to communication, frequency of interaction, information sharing and benevolence to importance as an antecedent of trust. Arifin (2015) also identified communication as an antecedent as well as competence and problem resolution as expertise. Although Khorassani et al. (2018) performed their study on international ventures they identified flexibility as an antecedent of trust as both parties need to be ready for any changes with regards to their relationship which is also tied to problem resolution (Khorassani et al., 2018). A short summary on researchers’ perceptions are noted in Table 9.

The antecedents of service and product quality in this study was identified as competence, intimacy, service quality, informed customer, relationship quality and intimacy and speed of response. Wang et al. (2003) was the only researchers found that focussed on both the antecedents of product and service quality. In the study of Wang et al. (2003) product convenience, product availability, tangible, reliability, responsiveness, empathy and assurance were identified as antecedents of product and service quality (Wang et al., 2003). This correlates partially with the study performed with regards to speed of response, assurance, empathy and assurance. Shamdasani et al. (2008) identified similar antecedents of service quality as Wang et al. (2003) with a correlation of speed of delivery and reliability (Shamdasani et al., 2008). Service quality antecedents are perceived in some industries as performance drivers (Wilkins et al., 2007). Students in higher education perceived the antecedents to service quality as information and past experience which correlates partially with the study performed (Sultan and Wong, 2013). It is of believe that the high focus on

service quality and much less focus on product quality in research is a result of the inability to separate service and product quality. This is particularly the case in B2B environments. Table 9 contains the summary of researchers' perceptions on the antecedents of product and service quality also.

Perceived value and service quality have been identified as antecedents of satisfaction in the freight transport, steel industry and many others (Gil-Saura et al., 2018, Liao, 2012). Ndukwe (2011) stated that the antecedents of satisfaction are perceived product quality, perceived service quality and perceived price fairness in telecommunications (Ndukwe, 2011), while Zeng et al. (2009) identified the antecedents of satisfaction in e-commerce and online investment as customer service, fulfilment and reliability, product portfolio and ease of use antecedents of satisfaction. Zeng et al. (2009) also identified behavioural consequences of satisfaction as recommendation, repurchase intention, price sensitivity and complain (Zeng et al., 2009) of which some correspond partially as antecedents to satisfaction of the current study. Patterson et al. (1996) identified antecedents to satisfaction in B2B professional services as disconfirmation, performance and fairness (Patterson et al., 1996). It would have been expected that some correlations would exist between the current study and that of Patterson et al. (1996) but the closest correlation was obtained from the study performed by Sánchez-Rebull et al. (2018) in tourism. Sánchez-Rebull et al. (2018) identified emotions, previous visit, service quality and perceived quality, personalised service, empathy, pre-purchase expectations, safety, experience, comfort, cost, recommendation, image, value, behavioural intentions, staff friendliness, customer retention, self-stated importance, perceived relationship quality and physical environments as antecedents of satisfaction (Sánchez-Rebull et al., 2018). No correlation with regards to interdependence as an antecedent could be found in literature but Del Bosque Rodríguez et al. (2006), who performed their study in manufacturing and distribution suggested further research of interdependence as antecedent of satisfaction should be performed in future (del Bosque Rodríguez et al., 2006). Hollyoake (2009) identified interdependence, with trust, integrity and communication, as one of the four pillars of customer experience as both the vendor and the customer rely on each other within the relationship (Hollyoake, 2009).

It is also worthwhile to note that some researchers state that satisfaction is an antecedent of trust (Geyskens et al., 1999) while others differ to state the inverse that trust is an antecedent of satisfaction (Baker et al., 2003). Table 9 contains a short comparison on researchers' perception on the antecedents of satisfaction.

Table 9: Comparison of studies on the antecedents of customer experience

Commitment

	Current study	(Morgan and Hunt, 1994)	(Pritchard et al., 1999)	(Baptista and Mazzon, 2011, Ha and Muthaly, 2008, Cater and Cater, 2010)	(Shi, 2014)	(Yanamandram and White, 2010)	(Simmons and Clayton, 2010)	(Jouny-Rivier, 2017)
Antecedents	Loyalty Alternative supplier Value	Relationship termination cost Relationship benefits Shared value Trust	Information Involvement Choice	Satisfaction - Quality - Reliability	Impact of customer value	Interpersonal relationships Loyalty	Dialogue initiation Frequency of responding	Customer benefits Improved customer knowledge Organisational sacrifices
Field of study	Heavy industry B2B	Relationship marketing	Services	Internet retail sector, retailer, B2B manufacturing	Social networking	Business services	Small B2B	Services

Trust

	Current study	(Hong and Cho, 2011)	(Morgan and Hunt, 1994)	(Arifin, 2015)
Antecedents	Competence and problem resolution Communication Importance	Competence Benevolence Integrity	Shared values Communication Absence of opportunistic behaviour	Initial trust: - Firm's size - Relational norm and institutional factor - Word-of-mouth and referral - Brands, reputation and familiarity - Similarity and likeability - Power Gradual trust: - Relationship specific investment and willingness to customise - Experience, perceived quality and satisfaction - Communication, frequency of interaction and information sharing - Length of relationship - Dependability - Integrity and benevolence - Flexibility and friendliness
Field of study	Heavy industry B2B	e-Commerce	Relationship marketing	B2B relationship

Satisfaction

	Current study	(Gil-Saura et al., 2018, Liao, 2012)	(Ndukwe, 2011)	(Zeng et al., 2009)	(Patterson et al., 1996)	(Sánchez-Rebull et al., 2018)
Antecedents	Customer engagement and value extraction Probability to recommend Continuous improvement Personal attention Relationship quality Interdependence Relationship quality and intimacy Visual appearance Price	Perceived value Service quality	Product quality Perceived service quality Perceived price fairness	Customer service Fulfilment and reliability Product portfolio Ease of use	Services as disconfirmation Performance Fairness	Emotions Previous visit Service quality and perceived quality Personalised service Empathy Pre-purchase expectations Safety Experience Comfort Cost Recommendation Image Value Behavioural intentions Staff friendliness Customer retention Self-stated importance Perceived relationship quality Physical environments
Field of study	Heavy industry B2B	Freight transport Steel industry	Telecommunications	e-Commerce Online investment	B2B professional services	Tourism

Service and product quality

	Current study	(Wang et al., 2003)	(Shamdasani et al., 2008)	(Sultan and Wong, 2013)
Antecedents	Service and product quality: - Competence - Intimacy - Service quality - Informed - Relationship quality and intimacy - Speed of response	Service and product quality: - Product convenience - Product availability - Tangible - Reliability - Responsiveness - Empathy - Assurance	Service quality: - Speed of delivery - Reliability	Service quality: - Information - Past experience
Field of study	Heavy industry B2B	Banking industry	Self-service internet technologies	Higher educations

9. A MODEL TO MANAGE CUSTOMER EXPERIENCE IN HEAVY INDUSTRIES

The theoretical study founded a model with four antecedents of customer experience. However, after statistical scrutiny, it became clear that the model also consists of a number of sub-antecedents. This means that for the heavy industry, each theoretical antecedent also has sub-antecedents that need to be managed individually. The model of antecedents and their sub-antecedents are shown in the figure below. The relative importance and internal consistency of the (as measured by the reliability coefficient Cronbach alpha) are also shown in the figure.



10. ACCEPTANCE/REJECTION OF HYPOTHESES

H0: There is no positive relationship between customer experience antecedents that influence buying behaviour intention in the heavy B2B market.

This hypothesis is **rejected** and the alternative hypotheses are **accepted**.

HA₁: The antecedents of customer experience differ in importance towards their influence on buying behaviour intention in the heavy B2B market.

This hypothesis is partially **accepted**. The analysis showed that statistically significant correlations do exist between the antecedents *Commitment* and *Trust* ($r=0.372$; $p\leq 0.05$) and the antecedents *Commitment* and *Product & Service quality* ($r=-0.421$; $p\leq 0.10$). No significant correlations exist ($p\leq 0.05$; $p\leq 0.10$) between the other antecedents. This supports the reasoning for a partial acceptance of the hypothesis.

HA₂: The antecedents of customer experience towards buying behaviour intentions are influenced by the demographic profiles age, experience or managerial position in the heavy B2B market.

This hypothesis is **rejected**. The analysis showed that no significant correlations exist ($p\leq 0.05$; $p\leq 0.10$) at neither the 95% or 90% confidence levels.

9 CONCLUSIONS

The antecedents of customer experience seem to be relatively similar across various industries. The antecedents of trust, commitment, service and product quality and satisfaction, as identified in the study, are supported by the outcomes of studies performed by researchers although no complete correlation of antecedents could be found within a single study. It is also important to note that the outcomes of the research performed by researchers differ as a result of difference in industry sectors. It is evident that customer experience is complex and that the sub-antecedents of customer experience in the B2B environment of heavy industry also differ from those of other industries.

10 SUMMARY

It was determined that customer experience in B2B interactions in heavy industry is as important as B2C business interactions and that suppliers should take the

necessary due diligence to ensure their customer experiences are such that they will be perceived as the preferred supplier. It was also determined that should suppliers be able to focus on the antecedents customers value most it will have an impact on the purchasing behaviour and in return an effect on the bottom line. The study aimed to determine if suppliers can influence the purchasing behaviour of their customers in the B2B heavy industry by focussing on certain antecedents of customer experience.

The study also aimed to understand the difference in importance of the antecedents of customer experience. This was done by means of a questionnaire prepared from B2C customer experience models and adapted for use in heavy industry. Factor analysis proved the questionnaire valid to measure customer experience as a differentiator of purchasing decisions in heavy industry. From here exploratory factor analysis was used to develop constructs of the original antecedents commitment, trust, product and service quality and satisfaction. From the study it is evident that customer experience are much more complex and further study will be required to understand the full impact customer experience can have on a B2B relationship in heavy industry.

Results indicated that there is a strong correlation between commitment and trust, and between commitment and service and product quality, although no correlation could be obtained with satisfaction. It is possible that satisfaction is seen as a consequence of customer experience and therefore the low level of correlation. It is also important to note that demographics of the population group had no significant effect on their perception of customer experience.

It can be concluded that customer experience in B2B heavy industrial sector has an influence on purchasing decisions of customers and that the antecedents of customer experience indeed differ in order of importance.

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CHAPTER 3

CONCLUSIONS AND RECOMMENDATIONS

3.1 INTRODUCTION

This is the final chapter of the study, which presents the conclusions drawn and subsequent recommendations made based on the findings of the previous chapters. The study also presents some areas for further research and provides a detailed summary of the study.

3.2 CONCLUSION

Conclusion 1

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was proven as an acceptable measure in marketing by Bhakar et al. (2013) to establish the suitability of data for factor analysis. Therefore, KMO was employed in this study. KMO values for the four antecedents' commitment, trust, service and product quality, and satisfaction ranged from 0.522 to 0.794. The sample is therefore considered as fair to satisfactory for use of analysis.

Conclusion 2

Bartlett's test of sphericity determines redundancy between variables and provides a chi-square output and should be <0.05 to be considered significant. In all cases, $p \geq 0.05$ and is therefore concluded that no suitability sphericity exists and therefore cannot be used for multivariate analysis.

Conclusion 3

Factor analysis was used for data reduction and summarisation of interrelated measures for measurement of the respective antecedents. All criteria showed a strong association with the respective antecedents, except for three criteria that are marginally important. It is therefore concluded that the questionnaire is valid to measure customer experience as a differentiator for purchasing decisions in heavy industry.

Conclusion 4

Based on the specific focus of the study application in the heavy industry it is also concluded that the questionnaire is valid for B2B customer experience in heavy industry specific. To operationalise the questionnaire to a broader audience and in other industries, this limitation should be bore in mind.

Conclusion 5

Exploratory factor analysis was used to identify underlying relationships between measured variables or factors. Some 21 factors (signifying sub-antecedents) were identified. This simplified the data set, and it is therefore concluded that the identified factors provide a structured framework for suppliers to build a customer experience management model.

Conclusion 6

Initially, four factors of customer experience were used for the study. Through exploratory factor analysis 21 factors were identified. It is, therefore, concluded that customer experience is much more complicated than originally suggested by the SERVQUAL and EXQ models.

Conclusion 7

A new model was developed from the analysis and conclusions of obtained results to measure customer experience as a differentiator of purchasing decisions in heavy industry. The model is therefore considered applicable, with Conclusion 4 in mind, by suppliers, academia and interested parties to measure and manage the customer experience as a differentiator of purchasing decisions.

3.3 RECOMMENDATIONS

Recommendation 1

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was proven to be successful in this application and is recommended for use by future researchers to determine the suitability of data for statistical analysis.

Recommendation 2

Bartlett's test of sphericity to determine redundancy between variables showed to be successful in similar studies, though insignificant success was obtained in the current study. The unsuccessful application of the statistical analysis method was contributed by the highly defined and small size of the sample group. It is recommended that researchers should consider larger sample sizes in future. It is also recommended that future researchers should consider qualitative research methods in a highly defined population.

Recommendation 3

Based on Recommendation 1 and Recommendation 2, it is recommended that researchers analyse data using professional statistical software.

Recommendation 4

Factor analysis used for data reduction, summarisation of interrelated measures for measurement of the respective antecedents and validation of measuring criteria proved to be successful. The soundness of the statistical principle makes it applicable in similar and other application settings. It is recommended that future researchers also consider this methodology to validate their questionnaires.

Recommendation 5

Regarding the specific focus of the study application in heavy industry that was applied in this study, it is recommended that future researchers should not use the model without caution.

Recommendation 6

As customer experience is much more complicated as anticipated from literature and previous research performed, it is recommended that each construct identified by this study should be evaluated separately.

Recommendation 7

It is recommended to suppliers in heavy industry to consider the outcome of the study to create and implement customer experience management systems should they wish to become the preferred supplier. It is also further recommended that suppliers actively

manage these systems and build stronger, more efficient relationships with their customers.

3.4 AREAS FOR FUTURE RESEARCH

The following two areas may provide insightful future research:

- A study that investigates the validity and use of the developed model in other industries to measure customer experience; and to
- Further development of the model and testing its goodness of fit in the heavy B2B industry using structural equation modelling;
- Make use of qualitative research to ensure all antecedents are identified in the heavy B2B industry;

3.5 SUMMARY

An increased focus on customer experience will require B2B companies to have a thoughtful approach towards future growth and bottom-line value of both companies by two-way interaction and a shared vision of success (Maguire and Hiscock, 2016). A strategy is required to recognise how to develop loyalty, manage value perception and focus on customer experience through a series of interactions known as customer experience management (CEM). CEM must focus on various points which include rational, emotional, sensorial, physical and spiritual levels (Choi et al., 2013).

In general B2B relationships are influenced by end-customer purchase behaviours, economic changes, relational and direct marketing communication (Kihyun Hannah and Kumar, 2018), but this is not easily identifiable in large enterprises. Large enterprises, such as heavy industry, is defined by Kenton (2018) as a capital-intensive business, involves large and heavy products, equipment or facilities, or complex and numerous processes (Kenton, 2018). In large enterprise inelastic business markets, such as fuel, potable water, paper, power, and others, it is impossible to focus on or trend the end-consumers' customer experience from a B2B supplier's point of view. These enterprises are also characterised by their complexity and highly segmented workforce. A lot of role players or segments are involved in purchasing decisions in a

typical large enterprise B2B transaction, for example, technical, commercial, production and customer services (Lilien, 2016).

Taking into account that heavy industry accounted for 25.5 percent of the world's GDP in 2017, according to the World Bank, this sector is as important as any other (The World Bank, 2019). Hollyoake states that it is important for B2B companies to understand their customer relationships before starting with their customer experience initiative. As many discussions on customer experience have begun with flawed assumptions (Maechler et al., 2016) companies should be clear with whom and where they want to develop customer experience at suitable business levels (Hollyoake, 2009). The relationship between the two companies should start at a base level around the expectations of the buyers' procurement teams which involves reliability, consistency, dependability problem resolution, appropriate contact, choice and flexibility. Only after meeting the deliverables of the base expectations consistently a B2B relationship can move to a 'bonded experience' (Hollyoake, 2009).

In the past and currently business to customer (B2C) marketing receives more research attention than business to business (B2B) marketing (Lilien, 2016) although B2B vendors need to deliver an excellent experience to their customers too as price and product quality won't cut it alone (Wollan, 2016). Customer experience is as critical in the B2B transactional environment as in the B2C environment, and therefore the transformation of customer experience processes impacts similarly in the B2B and B2C environment. Maechler and others point out that B2C companies gain "higher client-satisfaction scores, reductions of 10 to 20 percent in cost to serve, revenue growth of 10 to 15 percent, and an increase in employee satisfaction" with customer experience and state that it should be similar for B2B companies (Maechler et al., 2016).

B2B customer experience is of increasing importance to businesses. Previously B2B interactions focused on brand and image (Biedenbach and Marell, 2010) and, as customers are having increased access to big data and information of product features, prices and services, they want to interact with companies that reach out to them as individuals (Brans, 2015). Human and Hill (2016) have demonstrated the importance of positive interaction experiences as B2B relationships can be

strengthened by loyalty to stay on as a customer and is positively associated with overall customer experience (involving customer interaction on various levels of the business) (Human and Hill, 2016).

The study aimed to determine if there is a correlation between customer experience antecedents and buying behaviour intention and to determine whether antecedents of customer experience differ in importance towards their influence on buying behaviour and if customer experience is influenced by demographic profiles during B2B interaction in heavy industry. This was done using an online questionnaire presenting antecedents of customer experience from literature measuring buying behaviour. Simple descriptive statistics were used to develop sub-antecedents of trust, commitment, service and product quality and satisfaction, and to address the hypotheses set out in this study practical significance was used.

The study consists of three chapters. Chapter 1 provides an introduction on heavy industry, and a description of the B2B interactions suppliers and customers have in this industrial sector with the mentioning of how the complexed value chain cause suppliers unable to trend end-consumers' purchasing behaviour to improve products and services.

As customer experience is considered as an essential driver of buying behaviour in B2C environments, it enjoys much more attention in comparison to B2B environments. The problem B2B organisations face with customer experience as they do not always understand how to deliver a good experience or the value it might add in their competitiveness gave origin to the problem statement.

Chapter 1 also contain the research question and research objectives and hypotheses to the study followed by a description of the research methodology which describes the questionnaire design, sample population, unit of analysis the path followed for data collection and analysis.

Chapter 2 is a stand-alone scientific article. The article's referencing and layout conforms to the targeted journal. The *Journal of Economic and Behavioural Sciences* is an *International Bibliography of Social Sciences* indexed journal approved by the

Department of Higher Education. The article deals with the identification of dimensions, factors, domains, elements and antecedents of customer experience from literature with a specific focus on B2B customer experience requirements. The article also focusses on current customer experience models that were adopted for use as part of the questionnaire used in the research. Chapter 2 also contains the results obtained through statistical analysis and a short conclusion thereof.

Chapter 3 is the final chapter and provides conclusions and recommendations on the outcome of the statistical results as well as an indication and suggestions for future research.

The study contributed by not only analysing the B2B customer experience antecedents in heavy industry as a differentiator in purchasing decisions but also developed a model to measure and manage the customer experience in the heavy B2B industry. This model is of value to managers aiming to improve their customer experience as competitive thrust, industry researchers aiming to measure the present customer experience levels, and also academia and students seeking to further the customer experience in the heavy industries. The model could also be useful to apply in other application settings.

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APPENDIX A

QUESTIONNAIRE



Martha van Schalkwyk
Student number: 27474380

Customer experience as a differentiator for purchasing decisions in the industrial market

Please select and indicate your answer with an 'X'

Section A – General information						
1.	Department of operation	Commercial Finance	Technical Engineering	Operations	Mechanical	Electrical
		1	2	3	4	5
2.	Position	Plant owner	Senior Management	Middle Management	Junior Management	Supervisor
		1	2	3	4	5
3.	Years in level of position	1-5	6-10	11-15	16-20	>20
		1	2	3	4	5
4.	Age group	20-29	30-39	40-49	50-59	60-69

			1	2	3	4	5
5.	Level (weight) of influence in purchasing decisions (%)		<5	5-19	20-34	35-50	>50
			1	2	3	4	5

Section B – Research questions – Antecedents to customer experience						
B1. Commitment						
	Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I am a loyal customer to one specific service provider.	1	2	3	4	5
2.	I have developed a good relationship with one specific service provider.	1	2	3	4	5
3.	I choose between different companies that provide a similar service based on price alone.	1	2	3	4	5
4.	I choose between different companies that provide a similar service based on quality of goods/services alone.	1	2	3	4	5
5.	I choose between different companies that provide a similar service based on attributes that do not include price and quality.	1	2	3	4	5
6.	The way a service provider dealt with me when things went wrong will determine if I continue to do business with him.	1	2	3	4	5
7.	If an advisor at a service provider changes company I will consider moving my business to the new company.	1	2	3	4	5
8.	I will stay with a service provider though I'm not 100% satisfied as I am not confident to use an alternative service provider.	1	2	3	4	5
9.	I do not care about the relationship I have with a service provider as long as they supply products/services as agreed.	1	2	3	4	5
B2. Trust						
1	I want to deal with a company that reduces my risks.	1	2	3	4	5
2.	It is important that the service provider understands my processes.	1	2	3	4	5
3.	It is important that the service provider understands my problems and concerns.	1	2	3	4	5
4.	It is important that my service providers are looking out for my needs.	1	2	3	4	5
5.	I will award a contract to a service provider because he has my best interest at heart.	1	2	3	4	5
6.	I will contact a service provider because it was recommended by an associate or friend.	1	2	3	4	5
7.	I would choose a service provider because I have more knowledge of its products/services compared to other service providers.	1	2	3	4	5
8.	I prefer a service provider that:					
8.1	- Shares cost	1	2	3	4	5
8.2	- Shares delivery status on a regular basis	1	2	3	4	5
8.2	- Shares information on a regular basis	1	2	3	4	5

B3. Service/product quality						
1.	I don't want to shop around for the service provider with the best offer.	1	2	3	4	5
2.	My service providers' expertise is important to me.	1	2	3	4	5
3.	It is important that my service provider keep me up-to-date about new products.	1	2	3	4	5
4.	It is important that my service provider keep me up-to-date about new technologies.	1	2	3	4	5
5.	It is important that my service provider keep me up-to-date about changes in my process/plant.	1	2	3	4	5
6.	It is important that the service provider is a good listener.	1	2	3	4	5
7.	It is important that the service provider is polite.	1	2	3	4	5
8.	I will use a service provider because of its employees' caring attitude.	1	2	3	4	5
9.	I will change from service provider if another service provider's employees are more knowledgeable.	1	2	3	4	5
10.	It is important to me to be guided through a service provider's processes.	1	2	3	4	5
11.	It is important that the service provider makes me feel comfortable.	1	2	3	4	5
12.	I prefer a supplier that can ensure continuity of supply.	1	2	3	4	5
13.	I prefer a supplier where I receive regular visits by a representative to solve specific problems or a service complaint.	1	2	3	4	5
14.	I prefer a supplier that gives me sufficient face to face time.	1	2	3	4	5
15.	I am more committed to a service provider who invests in continuous improvement and innovation.	1	2	3	4	5
16.	I am more committed to a service provider who invests in product/service development.	1	2	3	4	5
17.	I am more committed to a service provider who invests in customer training.	1	2	3	4	5
18.	I would rather use a service provider whose employees have good people skills.	1	2	3	4	5
19.	I will choose a service provider on its quotation accuracy.	1	2	3	4	5
20.	I will choose a service provider on its invoice accuracy.	1	2	3	4	5
21.	I will award a contract to a service provider because they are known to be proactive.	1	2	3	4	5
22.	I will buy from a service provider by its ability to deliver on time.	1	2	3	4	5
23.	I will award a contract to a service provider because his installations are visually more appealing.	1	2	3	4	5

B4. Satisfaction						
1.	I won't go and look for another service provider if my current service providers are taking good care of me.	1	2	3	4	5
2.	It is important that my service providers are flexible in dealing with me.	1	2	3	4	5
3.	I need guidance from my service provider to enable me to make a purchasing decision.	1	2	3	4	5
4.	I will change from one service provider to another though I'm satisfied with the service I have received up to date.	1	2	3	4	5
5.	The overall experience I receive from my service provider determine on my satisfaction with him.	1	2	3	4	5
6.	I will not do business with a forceful sales person.	1	2	3	4	5
7.	I'm likely to say good things about a service provider I'm satisfied with.	1	2	3	4	5
8.	I will recommend a good service provider to an associate.	1	2	3	4	5
9.	I will recommend a good service provider to people outside my organisation.	1	2	3	4	5
10.	I prefer to deal with only one designated contact person at a service provider's company.	1	2	3	4	5
11.	It is important to receive offers from different service providers.	1	2	3	4	5
12.	All I care about is which service provider gives me the lowest price.	1	2	3	4	5

13.	I do not make my decision on price alone, there are other important factors that I also take into consideration.	1	2	3	4	5
14.	All I care about is which service provider can provide me with the latest technology.	1	2	3	4	5
15.	All I care about is which service supplier has a sufficient product range to match my requirements.	1	2	3	4	5
16.	Product quality is key when I make purchasing decisions.	1	2	3	4	5
17.	Dealing with different sales associates from one service provider company is not 'customer-friendly'.	1	2	3	4	5
18.	I prefer a service provider that takes care of everything during a business transaction.	1	2	3	4	5
19.	I prefer a service provider that can take care of problems outside his scope of work.	1	2	3	4	5
20.	Price is a key differentiator when purchasing products.	1	2	3	4	5
21.	I will more likely use a service provider that responds quickly to my enquiries.	1	2	3	4	5
22.	I prefer to use a specific service provider due to the expertise of its sales team.	1	2	3	4	5
23.	I prefer a specific service provider as their systems are more user friendly in comparison to other service providers.	1	2	3	4	5
24.	I would rather purchase from a service provider where I can place orders quickly and efficiently.	1	2	3	4	5
25.	I will award a contract to a service provider that is action orientated.	1	2	3	4	5
26.	I prefer a service provider that gives me customised information and reports.	1	2	3	4	5

APPENDIX B

LANGAUGE LETTER



Antoinette Bisschoff
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Language@dlts.co.za
CC No: 1995/017794/23

Thursday, 07 November 2019

To whom it may concern

Re: Confirmation of language edit, typography and technical precision

The MBA dissertation by Martha van Schalkwyk, "Using customer experience as a differentiator for purchasing decisions in the industrial market" was edited for language, typography and technical precision. The referencing and sources were checked and comply to the author guidelines specified by the targeted journal.

Final, last minute corrections remain the responsibility of the author.



Antoinette Bisschoff

BA Languages (UPE – now NMU); MBA (PU for CHE – now NWU); Translation and Linguistic Studies (NWU)

Officially approved language editor of the NWU since 1998
Member of SA Translators Institute (no. 100181)

Precision ... to the last letter

APPENDIX C

ETHICAL CERTIFICATE



Private Bag X8001, Potchefstroom
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Web: <http://www.nwu.ac.za>

Economic and Management Sciences Research
Ethics Committee (EMS-REC)
Tel: 018 299-1427
Email: Bennie.Linde@nwu.ac.za

30 August 2019

Prof C Bisschoff
Per e-mail
Dear Prof Bisschoff,

EMS-REC FEEDBACK: 30082019
M S van Schalkwyk (27474380)(NWU-00417-19-A4)
MBA – Prof C Bisschoff

Your ethics application on, *Using customer experience as a differentiator for purchasing decisions in the industrial sector*, that served on the EMS-REC meeting of 30 August 2019, refers.

Outcome:

Approved as a minimal risk study. A number **NWU-00417-19-A4** is given for three years of ethics clearance. It is suggested that the sampling method includes all departments as the researcher can later single them out.

Kind regards,

A handwritten signature in black ink, appearing to read 'B. Linde'.

Prof Bennie Linde
Chairperson: Economic and Management Sciences Research Ethics Committee (EMS-REC)
Potchefstroom Campus