Co-destruction & Co-creation of Value: The Influence of Basic Values, Traits, Motives and Benefits on Consumer Behaviour and Choice

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Abstract

Co-destruction and co-creation are both likely outcomes of interactions between firms and consumers. Whilst co-creation has been studied within the literature, co-destruction has not been studied as extensively. This work attempts to bridge this gap by highlighting factors innate to consumers which increase their likelihood to co-destroy value during interactions with firms. Whilst the focus of this work is co-destruction, the study utilises co-creation to put co-destruction into context. Data were collected through an online sample and a variety of methods were used to determine the effect of basic human values, motivation and personality traits on consumer co-destruction and co-creation behaviour and consumer co-destruction and co-creation choice. This work also determined the benefits sought by consumers who co-destroy or co-create value during interactions with firms.

With regards to basic human values, this work finds that personal values which express self-enhancement and openness-to-change facilitate co-destruction behaviour, while personal values which express self-transcendence and conservation facilitate co-creation behaviour. The results also suggest that the basic human values circumplex structure can be divided beyond the current division to reflect co-creation and co-destruction values. For personality traits, this work finds neurotic consumers are most likely to exhibit behaviours which will co-destroy value for the firm while conscientious and agreeable consumers are consumers least likely to co-destroy value. Neurotic consumers are consumers least likely to co-create value while extroverted and open consumers are most likely to co-create value during interactions.

Findings from this work also show that both values and traits predict consumer co-destruction and co-creation choices during interactions. Basic human values show a stronger prediction of co-destruction choices in comparison to co-creation choices, highlighting the more cognitive nature of co-destruction. The study has also found that whilst traits contribute to the variance in choice, traits do not necessarily show better classification of choice in comparison to values.

Finally, this study finds that a range of intrinsic and extrinsic motives drive consumers to exhibit co-destructive behaviours. These include revenge motives, egoistic motives and hedonic motives. Whilst consumers co-destroy value for both utilitarian and hedonic benefits, consumers are more likely to co-destroy value for hedonic benefits as opposed to co-destroying value for utilitarian benefits.

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Chapter 1. Introduction

Prahalad and Ramaswamy (2004c) defined co-creation as the process whereby more than one party joins forces to interact, learn and share information to create value. Co-creation is based on the notion that the firm, which was originally considered the centre of value creation, is now taking a back seat, as value is being increasingly created within the firm's network (Prahalad and Ramaswamy, 2004c). This network, which includes consumers and other stakeholders, acts as a pool of knowledge which the firm can leverage to generate a range of benefits. Previous limitations on value creation, as a result of the firm's finite resources, can be overcome, given that the firm can now tap into the resources available within its immediate business environment. Co-creation emerged with the introduction of the service-dominant logic (SD logic), which introduced services as the fundamental unit of exchange, as opposed to goods under the goods dominant logic (GD logic) (Vargo and Lusch, 2004). With the advent of co-creation, consumers are now involved at different points along the value chain during the development and commercialisation of products and services. Organisations like Microsoft, which typically developed products and services with little or no input from consumers, now involve consumers in their research (insider programs for continous feedback and suggestions from consumers) and marketing (working with influencers to spread positive word of mouth on social platforms).

To an extent, co-creation encounters have been successful at generating value both for the consumer and the firm. There are, however, encounters where the outcomes of value-creating ventures have not been favourable. For example, whilst companies like Microsoft could work with influencers on social platforms to spread positive word of mouth about their products and services, these influencers could also spread negative word of mouth about these products and servcies. These negative interactions seemed to have been overlooked under the SD logic. In these processes, value is destroyed, instead of being created. This process of value destruction was labelled 'co-destruction' by Plé and Cáceres (2010) and refers to all forms of interactions between firms and their consumers where less than ideal value propositions have been realised. Co-destruction, unlike co-creation, has not received much attention in the literature. This lack of focus has been a result of the positive connotations associated with the term 'value' (Plé and Cáceres, 2010) and the difficulty in identifying where value is destroyed in the SD logic. In the GD logic, both the firm and its consumers played separate roles. The firm was assumed to play the sole role of value creator, while the

consumers only played a role in value destruction (Ramirez, 1999). Value was thought to be exchanged in a market via goods (Prahalad and Ramaswamy, 2002) and it was easy to identify the value creator and value destroyer. These roles have been redefined with the introduction of the SD logic and the emergence of co-creation. The firm and its consumers are no longer considered to be on opposite sides of value creation and destruction. Both are now known to co-create value by interaction through various touchpoints (Prahalad and Ramaswamy, 2004c). This interactive value co-creation blurred the line between value creation and destruction, making it difficult to identify where value is created (Saarijärvi et al., 2013) or destroyed. As the literature has increasingly accepted the SD logic and the focus on co-creation has surged, the literature on the negative outcomes of interactions between the firm and its consumers within the SD logic has been largely understudied (Vafeas et al., 2016).

The lack of focus on the negative outcomes of interactions changed, however, with the introduction of the term 'co-destruction' by Plé and Cáceres (2010), resulting in a gradual increase in publications focusing on the negative outcomes of interactions between firms and consumers. This increased interest reflects the need to better understand co-destruction since co-creation and co-destruction are not necessarily opposites (Stieler et al., 2014) and understanding value co-creation does not necessarily lead to an understanding of value co-destruction. Moreover, just as co-creation could lead to the realisation of enormous value for organisations, co-destruction could result in significant losses in value. Negative word of mouth co-destructive acts on social platforms could deter consumers from making planned purchases, leading to significant revenue losses for organisations. Co-destruction could also result in loss of brand value and reputational damage to firms. Social platforms like Facebook, which have been used for the proliferation of fake news, have experienced significant reputational damage. These co-destructive acts could have long-term effects on Facebook's brand and could give its competitors an edge. Whilst some of these actions might not have been deliberately initiated to destroy value, actions and practices geared towards value co-creation could eventually result in value co-destruction (Becker et al., 2015). A typical example of this is interaction via marketing emails. When a firm sends out emails to its customers, this initially creates value as it enables the firm to pass on crucial marketing information to its customers. The customer is aware of and informed about various products; value is being created. When this goes on for some time, perhaps at a higher frequency, the customer could get irritated and tired of the information overload. At this point, value is not

being created, it is being destroyed. Firms need to find the right balance or sweet spot of activities that optimise value co-creation without resulting in value co-destruction. To date, not much work has been done to address this. Beyond the effect co-destruction could have on the firm's brand and value generating potential, co-destruction could also have adverse effects on the firm's employees' mood and ability to perform their role, ultimately affecting service quality (Isin et al., 2010). An understanding of co-destruction and, how it occurs and how it can be prevented could, therefore, help improve service quality. There is also a need to better understand co-destruction in relation to co-creation. This will help pave the way for developing frameworks which will simultaneously address both the upside and the downside of value formation and help identify the antecedents to co-destruction, as suggested by (Echeverri and Skalen, 2011).

The lack of focus on value-destroying processes has created a gap in the literature. This work seeks to fill this gap by identifying factors responsible for consumer co-destruction and co-creation behaviour, determining why value is created in some encounters and destroyed in others, whilst simultaneously developing a framework for both co-creation and co-destruction.

1.1 Lack of Focus on Value Co-destruction & Research Gap

Since the introduction of the concept of co-creation, firms have increasingly found ways to involve customers in various stages across the value chain (Gouillart, 2014). These consumer-firm interactions, which we all experience daily, are not always positive and in each of these encounters, value can either be created or destroyed. Whilst the literature has shown ample attention to interactions with positive outcomes, interactions with negative outcomes have received less attention despite the likelihood of their occurrence (Plé and Cáceres, 2010). It is impossible to guarantee 100% error-free service (Dong et al., 2008) and during interactions, consumer/firm resource mis-integration often occurs (Ple, 2016), leading to value co-destruction. Very little work has been done on the co-destruction of value, which very often occurs as often as co-creation (Plé et al., 2010). Although it is important to understand what to do to ensure value is co-created during interactions, the lack of focus on negative outcomes creates an optimistic view of the concept of co-creation. An understanding of what to do to ensure value is created does not necessarily equate to an understanding of what not to do or what to do to avoid value co-destruction, since value co-destrution and value co-creation are not always opposites (Stieler et al., 2014). In some instances,

incremental steps towards value co-creation could eventually result in value co-destruction (Plé and Cáceres, 2010).

During interactions, when the firm/provider makes a value proposition, firms have an expectation of the way consumers should behave to ensure that value is created. Consumers often have different expectations and often choose to behave in a way different from what the firm expects (M. Smith, 2013). There is therefore a need to understand consumer behaviour to shed light on why consumers will co-destroy or co-create value. To understand co-creation/co-creation behaviour, we need to understand the behavioural aspects of individuals which stir them to move or take action in view of certain benefits.

Motivation, values and traits have been identified as important determinants of behaviour (Bardi and Schwartz, 2003, Myszkowski and Storme, 2012, Parks-Leduc et al., 2015, Parks and Guay, 2009). Motivation values and traits have been used to predict consumer behaviour in relationships (Leikas et al., 2018, Timmermans and De Caluwé, 2017), entrepreneurial intention (Espíritu-Olmos and Sastre-Castillo, 2015, Zahra et al., 2009), political choice (Caprara et al., 2006, Ali and Lin, 2013) and prosociality (Caprara et al., 2012, Ali and Lin, 2013), for instance. Understanding motivation, values and traits and their relation to behaviour is therefore crucial if firms are to understand consumer co-destruction/co-creation behaviours.

Motivation means ‘to move and modern theories of motivation focus on the link between beliefs, values and goals with action' (Eccles and Wigfield, 2002). Studying motivation and its associated constructs will lead to a better understanding of consumer reasons for indulging in co-creation or co-destruction (Becker et al., 2015). Traits are descriptions of people in terms of relatively stable patterns of behaviour, thoughts, and emotions (McCrae and Costa, 1990). Traits describe what people are and serve as standards for judging the behaviour of oneself and others (Roccas et al., 2002). Traits are likely to determine behaviours as consumers interact with firms across various touchpoints. Values are motivational constructs, they influence behaviour and can be grouped based on conflicts and congruities (Schwartz, 1992a). Although the expression of values is stronger in some domains than in others, consumers typically behave in ways that express their values (Bardi and Schwartz, 2003). Values will, therefore, influence consumer behaviours when they interact with firms.

1.2 Research Objectives

The main objective of this research is to understand why consumers indulge in the co-destruction of value, highlighting the influence of basic human values, personality traits, consumer motivation and benefits on consumer decisions to indulge in the co-destruction of value. Specifically, while aiming to answer the overarching question 'Why do consumers engage in value co-destruction?', this work aims to tackle the following research questions:

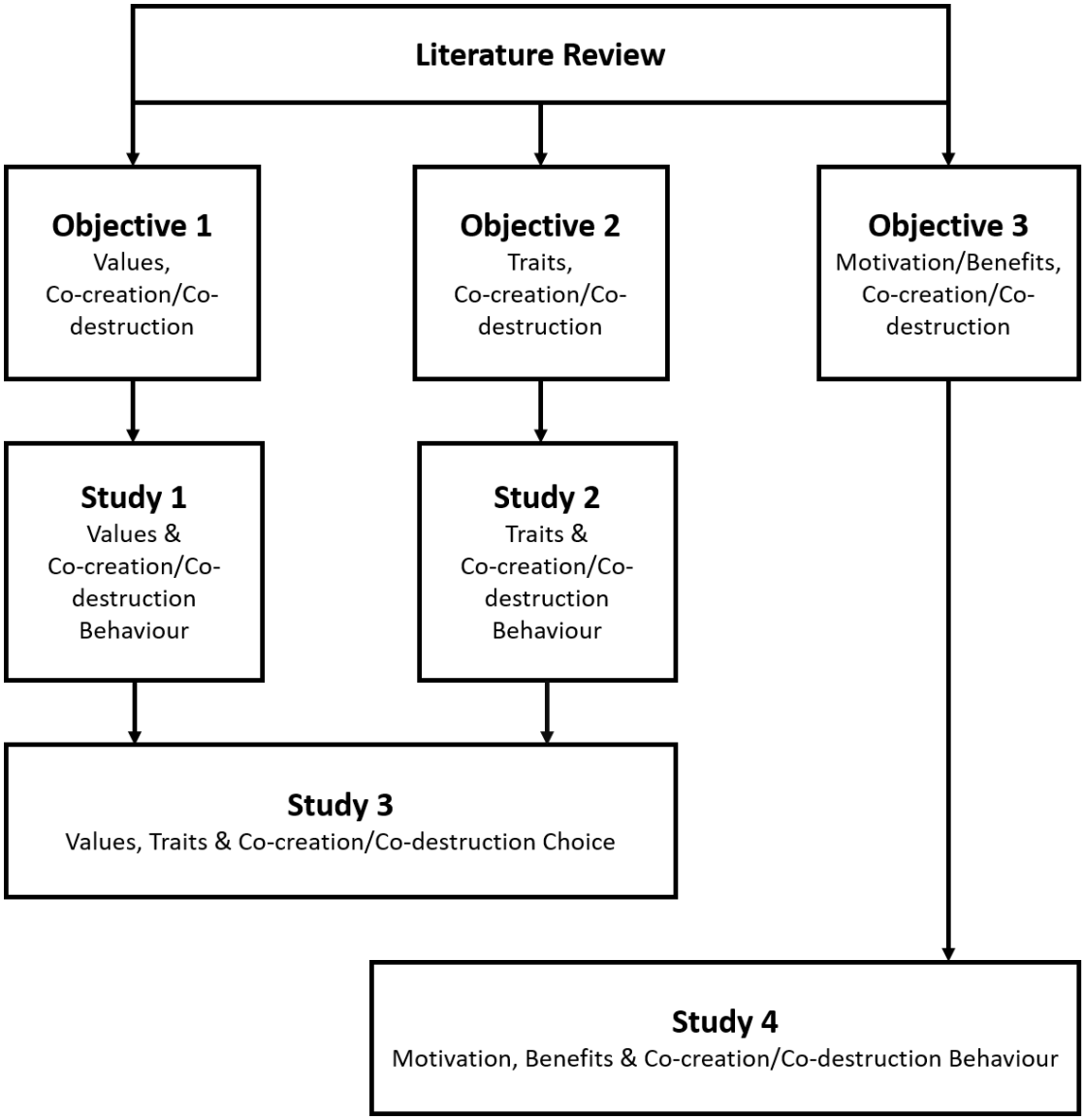
1. How do basic human values influence the decision to indulge in the co-creation and co-destruction of value? Values serve as guiding principles in people's lives and influence the evaluation of policies, actions and events (Schwartz, 2007). Individuals are thus likely to act based on their values when stimulated. This would have profound effects on their co-creation/co-destruction behaviour.

2. What personality traits are likely to facilitate co-destruction of value? Traits are descriptions of people in terms of relatively stable patterns of behaviour, thoughts, and emotions (McCrae and Costa, 1990) and are descriptions of what people are like and how they act under different conditions. They are likely to influence consumer behaviours during interactions with firms.

3. What are the consumer motivational factors that facilitate co-destruction and how do these influence the benefits sought by consumers? Consumers are motivated for either intrinsic, extrinsic reasons with a view to getting either hedonic or utilitarian benefits. This study aims to identify which motivational constructs play important roles in the co-destruction/co-creation of value and how these affect the benefits sought by consumers.

The objectives of this work are achieved in four studies (Figure 1). Following a review of the literature, study 1 and study 2 focus on identifying groups of values and personality traits which facilitate co-destruction and co-creation behaviour respectively. Study 3 builds upon study 1 and 2 to determine how the identified values and traits influence consumer co-destruction and co-creation choices in interactive scenarios between firms and consumers. Study 4 focuses on identifying the intrinsic and extrinsic motivations and benefits consumers get from engaging in value co-destruction/co-creation.

Figure 1: Objectives and study structure



1.3 Theoretical Contributions

Since co-creation was introduced, many firms have adopted the paradigm and subsequently re-engineered their processes to support value co-creation between their employees and their customers. A lot of the steps they have taken to ensure successful co-creation encounters have come from published works by various authors. These authors, however, have failed to account for the downside of co-creation, which is the possibility of co-destruction. Firms, therefore, venture into co-creation or expect value to be co-created without an awareness of the downside and knowledge of activities which could result in co-destruction. The findings of this study should contribute to the knowledge and understanding of co-creation and close

the research gap by focusing on unsuccessful co-creation encounters, which have been largely ignored in the literature.

1. It will help provide frameworks for co-destruction by highlighting common factors which influence the decision to engage in the co-destruction of value. As opposed to frameworks which focus only on co-creation, frameworks which simultaneously address co-creation and co-destruction of value will be developed. This will contribute to the way co-creation is addressed in the literature by ensuring subsequent works avoid treating both as separate ventures but as two possible outcomes of every interaction between the firm and its consumers. Firms will, therefore, have a cautionary reference when addressing co-creation. This will highlight what activities to indulge in with which specific customer, help determine when the activities tip over from creating value to destroying value and explain why certain customers will indulge in the co-destruction of value.
2. This study will shed more light on the potential for co-destruction by providing a better understanding of consumer choices as influenced by their values and traits. This will help guide firms and their employees in communication/decision making when across different touch-points with their consumers by avoiding values/personalities which conflict with those of their consumers
3. This study will also shed more light on the consumer motivations and benefits of engaging in co-destruction and provide a way to prevent potential value-destroying activities by helping the firm identify when customers are likely to indulge in value co-destruction and when firms can take the necessary steps to ensure these negative actions are prevented.

1.4 Structure of the Thesis

The study is divided into 8 chapters. The next chapter sheds more light on the concept of value, highlights definitions of value and touches on the various value co-creation paradigms. This chapter concludes by exploring value co-creation both for the customer and the firm.

Chapter three focuses on the co-destruction of value and systemically reviews the literature to highlight what co-destruction is, the locus of value co-destruction, value co-destruction through resource mis-integration and value co-destruction practices. This chapter also analyses co-destruction in relation to various stakeholders (firm, consumer and multiparty) and highlights future research agendas.

Chapter four covers the research framework and lists the investigated constructs. This chapter also outlines the study design and tested hypotheses. This work is divided into 4 sub-studies each focusing on the effect of different psychological dimensions on consumer co-creation/co-destruction behaviour.

Chapter five covers the methodology and development of the survey instruments while chapter six details the results of the research. Chapter seven discusses the research result and chapter eight provides the concluding comments.

Chapter 2. Value, Value Creation Paradigms and the Co-creation of Value

2.1. Introduction

Value is an elusive term and several authors have described value as one of the most ill-defined concepts in management (Gronroos, 2011, Plé and Cáceres, 2010, Vargo and Lusch, 2008a) or an amorphous concept (Zeithaml and Bitner, 1996) which is multi-faceted and complex. The term value and the numerous ways it is used are never really thought of until the need to define it arises. This chapter starts by delving into the literature to shed light on the general understanding of value and how this has changed over the years. Next, it highlights the various value creation paradigms and finally discusses the co-creation of value, shedding more light on what co-creation is, its various dimensions and touches on value co-creation for both the firm and the consumer.

2.2. The Concept of Value

Value has been discussed and debated for decades, with various authors taking different views on the concept of value. Despite this age-long tussle, the literature does not show significant evidence that anything close to a consensus on the term value exists. Value, therefore, remains a topic of continuing ambiguity which is subject to both empirical and speculative enquiry (Woodall, 2003). Understanding value, however, is crucial to understanding co-creation since most of the approaches towards co-creation differ based on the understanding of who creates value and who co-creates value, and likewise who destroys value and who co-destroys value. The parties involved in co-creation/co-destruction, which for this thesis are the firm and the customer, are both best understood by understanding value (Gallarza and Saura, 2006). Moreover, the importance of value cannot be overlooked because firms exist for the sole purpose of creating value for their stakeholders and customer value serves as the foundation for all effective marketing activity for the firm — both as the key to the formulation of a successful marketing strategy and as the crux of our hopes for its ethical justification (Holbrook, 2006).

2.2.1. Defining Value

The literature provides an extensive and broad supply of value related articles. These can be found mainly in the fields of economics, philosophy and business (Woodall, 2003). Authors in each of these fields, however, address the value concept from the narrow view of their

fields. If we are to get a better understanding of what value is, it would be important to view value from each of these different perspectives before homing in on what value is within the marketing/strategy field.

In economics, value is usually conceived of using the 'exchange/use' dichotomy. Much of the current day definition of value from an economic perspective that came from the works of Adam Smith. In 1776, Adam Smith, in his study of market exchange, observed the two different meanings of the term 'value'. He realised that in some cases value is used to express the 'use' of an object, while in other cases it is used to express the 'purchasing power' of an object and he coined two expressions 'value in use' and 'value in exchange', respectively. His focus only on goods which increased the economic wealth of England at the time led him to direct his attention towards value in exchange, which went on to become the dominant view of value. This view of value based on exchange is known as the goods dominant logic (GD logic) of value creation.

Value from a philosophical perspective tries to address factors which influence and determine human inclinations, with the aim of providing an explanation for the nature of our relationships with goods and services (Woodall, 2003). 'Value', when used in this way, expresses a set of guidelines which individuals use in making decisions. To further clarify this, a distinction can be made between intrinsic value, which is more internal and denotes a set of beliefs held by individuals, and extrinsic value, which often denotes the value endowed on an item as a result of its worth. Value here is referred to as 'values' and much of our understanding of 'values' comes from the work of Rokeach (1973). More on this will be discussed later in this work.

Within the business field, value is conceived of in various forms. Woodall (2003) conducted an extensive review of the literature on values within the business field and was able to identify five distinct notions of value. These were named: net, derived, marketing, sale and rational value for the consumer. These five forms are summarised in Table 1 below. Together, these forms represent the entirety of ways value is used within the business world. It is interesting to note there are overlaps in the conception of value within the business world and both the economic and philosophical worlds.

Table 1: 5 Primary forms of value (Woodall, 2003)

Value Type	Definition
Derived	Value conceived as use/experience outcomes
Marketing	Value conceived as product attributes
Sale	Value conceived as a reduction in sacrifice I.e. Price
Rational	Value conceived as the difference from the objective price
Net	Value conceived as the balance of benefits and sacrifices

From the above, it is clear that value can be viewed from different perspectives and thus can be defined in different ways. If there is anything the authors and scholars that have studied value have yielded, they have come up with many definitions of what the term 'value' means. Most of the definitions of value are from the point of view of the author's understanding of the term and the specific application of the term. Value is perceived in an individualistic way (Gronroos, 2011) and could mean different things to different people. For example, to one individual, value could be in the joy of getting a new pair of shoes, while to another individual, it could be in the opportunity the shoes provide to move from place to place. Where value is created, realized and what it consists of are hard to grasp and despite this lack of understanding, the term 'value' is used widely across disciplines. It is also referred to by various terms, perceived value, consumer value amongst many and in the marketing literature these terms are simultaneously used to describe both what is derived by the customer from the supplier and what is derived from the supplier from the customer (Woodall, 2003).

Form a consumer perspective, various definitions of value have been suggested (Table 2). Zeithaml (1988) defined value as 'A consumer's total assessment of the utility of a product based on perceptions of what is given and what is received'. Woodall (2003) defined it as 'any demand-side, personal perception of advantage arising out of a customer's association with an organisation's offering, which could occur as a reduction in sacrifice; the presence of benefits (perceived as either attributes or outcomes); the result of any weighted combination of sacrifice and benefits (determined and expressed either rationally or intuitively); or an aggregation, over time, of any or all of these', while Holbrook (2006) defined value as 'an interactive relativistic preference experience'.

Table 2: Definitions of Value

Value (Definition)	Definition derived from different conceptions of the term	Perspective	Source
Perceived value An evaluation of the "fairness" of the transaction, i.e., the trade-off between perceived quality and perceived sacrifice.	Perceived Value = Acquisition value + Transaction Value 1. Transaction Value - The perceived merits of a "deal." (Monroe & Chapman 1987) 2. Acquisition Value - The net value that accrues from the trade-off between the actual price charged and the perceived benefits of acquiring a product. (Monroe & Chapman 1987)	Conceives value based on how consumers evaluate the quality or benefits to be received from a product relative to the sacrifice inherent in the price. This definition also focuses on the utilitarian side of value.	Monroe and Krishnan (1985)
A consumer's total assessment of the utility of a product based on perceptions of what is given and what is received.	1. Value is low price; 2. Value is whatever I want in a product; 3. Value is the quality I get for the price I pay 4. Value is what I get for what I give	Zeithaml's four uses of the term 'value' showed the general understanding of the concept of value was based on some notion of its functional utility – shows an emphasis on sacrifices/benefits	Zeithaml (1988)
Aggregated Value Any demand-side, personal perception of advantage arising out of a customer's association with an organisation's offering, which could occur as a reduction in sacrifice; the presence of benefits; the result of any weighed combination of sacrifice and benefits; or an aggregation, over time, of any or all of these.	1. Derived Value - Value conceived as use/experience outcomes 2. Marketing Value - Value conceived as product attributes 3. Sale Value - Value conceived as a reduction in sacrifice i.e. Price 4. Rational Value - Value conceived as the difference from the objective price 5. Net Value- Value conceived as the balance of benefits and sacrifices	Provided a representation of all consumer value types based on consumer demand. Depicts a focus on the utilitarian and, like Zeithaml's definition, it highlights the emphasis on sacrifices/benefits	Woodall (2003)
An interactive relativistic preference experience.	1. Utilitarian Value – The functional utility /dimension of value 2. Hedonic Value – the experiential dimension of value	Defines value from an interaction perspective between an object, which could be a product, and a subject, which could be a consumer. Captures both the hedonic and utilitarian sides of value and considers interactions – puts little emphasis on sacrifices/benefits but highlights preferences	Holbrook (2006)
Value for Service Systems An improvement in a system's well-being - which can be measured in terms of a system's ability to adapt or fit into its environment.	Derived specifically to define value for service systems	Defines value for service systems with a focus on improving the well being of the system. This improvement is defined by the ability of the system to better fit into its environment. Does not touch on sacrifices/benefits.	Vargo et al. (2008)

Zeithaml (1988)'s definition was derived after conducting an extensive review of the concept of value. In this review, Zeithaml came up with four common uses of the term 'value', which was identified from an exploratory study where respondents discussed value. The identified uses included value defined as (1) low price, (2) whatever a person wants in a product, (3) quality obtained for the price paid and (4) what consumers get for what they give. From these four uses, Zeithaml derived a definition of value and suggested a cost-benefit or a price-quality view to value. Woodall (2003), on the other hand, did not conduct an exploratory study involving individuals like Zeithaml did. Woodall came up with a form which he tagged the aggregated value for the customer by identifying possible relationships between the different forms of value for the customer (Table 1). Zeithaml's four uses of the term 'value' showed that the general understanding of the concept of value was based on some notion of its functional utility, while Woodall (2003)'s aggregated value provided a representation of all consumer value types based on consumer demand. Both definitions, however, show the same emphasis on sacrifices and benefits/cost-benefits associated with value and both have more of a focus on the utilitarian as opposed to the hedonic side of value.

2.2.2. Criticism of the Utilitarian Focus

The focus on the utilitarian has come under criticism by various authors who claim that a trade-off only between price and quality/cost benefits is too simplistic. Porter et al (1990) in (Sweeney and Soutar, 2001) spoke about offering customers' superior quality in terms of special features, product quality, or after-sale service, suggesting a much broader view of what constitutes value. Holbrook and Hirschman (1982) argue that Zeithaml's view only provides a narrow view of the concept of value and does not account for the much more experiential side/dimension to value. Holbrook and Hirschman were studying consumption experiences particularly relating to shopping and they realised that people derived value not only from the things they bought but also from simply partaking in shopping itself. For example, various activities and objects, such as coffee, have both a 'functional side', which keeps you awake, and an 'experiential side', which can be associated with its pleasant taste. Coffee can be consumed either to keep you awake or for its taste or for both its taste and its ability to keep you awake simultaneously. These two dimensions to value are known as the utilitarian and hedonic dimensions respectively and both represent the duality of rewards associated with human behaviour (Babin et al., 1994). They mirror the difference between indulging in an activity because of what you will get from it and indulging in an activity just

because you love it (Triandis, 1977) and often, we perform activities for one or both of these reasons.

In this view, Holbrook (2006) attempted to provide a much more encompassing definition and defined value as '*an interactive relativistic preference experience'*. This defines value from an interaction perspective between an object, which could be a product, and a subject, which could be a consumer. This interaction is relative across various senses (comparative, personal and situational) and provides an encompassing view which caters for the comparison between different objects when evaluating the value of an item (comparative), the difference in preference across people (personal) and also the situation where the evaluation occurs (situational).

In Holbrook's view, all these factors influence the perception of the value of any given item at any given time by various individuals and they shape the essence of consumption experiences. The view also suggests that these objects or products perform services which provide the relevant value-creating experiences and thus, in this view, all products are services in agreement with the new paradigm shift in thinking, which is fundamental to co-creation. Finally, this definition highlights not only the utilitarian but also the hedonic side to value (experience), which was one of the key reasons previous definitions were criticised.

2.2.3. Value for Service Systems

Specifically for service systems, value is defined as *''an improvement in a system's well-being' which can be measured in terms of a system's ability to adapt or fit into its environment"* (Vargo et al., 2008). This definition is based on the notion that the function of service systems is to make use of their resources and the resources of others to improve its circumstance and that of others (Vargo et al., 2008). This definition, like others, has been criticised within the co-destruction literature as providing an over-optimistic view and a favourable perspective on the outcome of value related processes (Plé and Cáceres, 2010). It fails to consider the infinite possibility that resources can be used within the system to the detriment of others. This rather positive connotation of "*relativistic preferences"* by Holbrook (2006), *"personal perceptions of advantage"* by (Woodall, 2003), "*assessments of the utility"* by Zeithaml (1988) and "*an improvement in a system's well-being"* by (Vargo et al., 2008) have had a large influence on how we assess value related activities, by leaning towards positive outcomes of all value-creating activities, at the expense of the negative outcomes.

The bulk of the literature on interactions, perceptions and discussions on value focuses on the positive and ignores the fact that not all these encounters result in positive outcomes (Plé and Cáceres, 2010). Whilst the lack of focus on the negative outcomes of interactions will be discussed in the next chapter, the next few subsections focus on trying to understand more about value and where it is created.

2.3. Value Creation Paradigms

The argument on value could also be viewed from the locus of the causality perspective. This tries to answer the question 'where is value created?' A paradigm shift in the understanding of where value is created is at the root of the concept of co-creation/co-destruction. To get a better understanding of how value is co-created or co-destroyed and even better understanding of the term value, an understanding of the locus of value formation is essential. This understanding is important, especially since authors have argued against specific instances of co-creation based on the locus of the formation of value (Gronroos, 2011). The sections below describe the change in thinking of our understanding of where value is created based on our change in understanding of the locus of value formation.

2.3.1. The Goods-Dominant Logic

Consumers are generally considered to be a set of individuals known to take already manufactured products and use them till a depreciated state with little or no value left. This is no mistake since the dictionary definition of the word consume means 'to expend', 'to use up' or 'to destroy' and it is a word that was chosen to reflect the thinking 'at the time' of what the industry/literature used to describe the people at the other end of the value chain that had no input in the process of the creation of goods. But is this the case? Do 'consumers' only play a part in consumption?

Much of the 20th-century thinking about value was based on the understanding that value could be embedded inside products or services and subsequently transferred from the value producer to the consumer via exchange. This understanding was based on the exchange view of value from Adam Smith's 1776 study (Vargo et al., 2008) (section 2.2.1). Adam Smith directed his attention towards value in exchange, which went on to become the dominant view of value. This was known as the goods dominant logic of value creation.

The value-in exchange, or non-interactive value formation, dominated the general understanding of value. In this view, value is embedded inside products or services, which

are produced, manufactured or offered by firms. The firm's ability to create value was limited to its resources and value was assumed to be created only when goods were being manufactured by the firm (Vargo and Lusch, 2004, Gronroos, 2011) and subsequently distributed in the market through an exchange of goods and money (Vargo et al., 2008). This was commonly referred to as the Goods-Dominant logic (GD Logic). From this viewpoint, both the producers (firms) and the consumers played distinct roles in value formation and consumption.

The GD logic has its origins in economics literature and relies totally on the exchange of goods and services. The adaptation of this logic in the marketing literature created a goods/product-centric view of the activities of the firm (Lusch et al., 2007, Vargo and Lusch, 2004). The focus in the GD logic was on operand resources (Vargo and Lusch, 2004), which are resources on which an operation or act is performed to create an effect. Operand resources include such factors of production as land, minerals, natural resources etc. These resources are finite and competition at the time was a tussle for more of these resources. A firm with access to more of these resources was considered better off in comparison to one with less access. Value was assumed to be embedded in these resources before being exchanged in a market with consumers. This put the locus of formation of value on the firm – excluding consumers. The firm was seen as the creator of value, and consumers – the destroyer of value. As time went by, the focus of the firm changed from 'products' to 'consumers' and even with this shift in focus, 'consumers' were also treated as 'products' which could be acted on or otherwise operand resources (Vargo and Lusch, 2004). This is reflected in notions such as the Four P's in marketing literature (Lusch et al., 2007), which is based on the four parameters of Products, Price, Place and Promotion, which were manipulated to maximise the value embedded in products. Notions such as the four P's were targeted at consumers as consumers were viewed as passive and operand resources which could also be acted on.

In the early 2000s, however, this perspective began to change as the world realised goods included a service element (Vargo and Lusch, 2004). It became clear that it was the usage of these goods by consumers that mattered and where value was potentially stored within the goods when they were manufactured by firms, as argued by Gronroos (2011), real value was never created until the goods were being used by consumers. The firm, which was once seen as the major contributor to value creation, was now more of a facilitator of value creation and the firm's customers, who were never considered value creators themselves, became more active constituents of value creation. Vargo and Lusch (2004) thus argued that goods were

simply transmitters of services and that services should be seen as the fundamental unit of the transfer of value.

2.3.2. The Service-Dominant Logic

The Service-Dominant logic (SD logic) is associated with the value-in-use or interactive value formation. As opposed to the Goods-Dominant (GD logic) approach, where value is embedded in the product and goods served as the primary medium of exchange, the Service-Dominant logic implies that value is created simultaneously by producers (firms) and consumers. Here, all exchange is based on service and where goods are involved, they only serve as mere transmitters of service. In the SD logic view, producers (firms) and consumers do not have separate roles of production and consumption respectively.

The SD logic focuses on the action of operant resources (resources that act on other resources such as knowledge and skills) while the GD logic focuses on the exchange of operand resources (resources which are acted on, such as goods) (Constantin and Lusch, 1994, Vargo and Lusch, 2004). From this view, value is co-created through the combined efforts of firms, employees, customers and other entities associated with any given exchange. Value, however, is always determined by the beneficiary, which is usually the customer (Vargo et al., 2008). From an SD logic perspective, the firm, which was once seen as the major contributor to value creation, is now seen only as a facilitator of value creation. Observing the changing role of the firm, Sawhney et al. (2005) thus labelled the firm ‘a catalyst’ though which value creation can be shaped, accelerated and enabled.

In the SD logic, the relationship between the firm and the consumer is redefined (Rihova et al., 2013), as highlighted above. When the SD logic was introduced by Vargo and Lusch (2004) a set of eight foundational premises (later modified to ten in 2008 (Vargo and Lusch, 2008b) and eleven in 2016 (Vargo and Lusch, 2016)) were outlined. These premises were a collection of the observed changes in our understanding of the relationship between the firm and the consumer and the creation of value.

These eleven premises (Table 3) show a new locus of the formation of value – the consumer and a switch from the previously thought ‘goods’ as the medium of exchange to ‘services’ as the medium of exchange. Understanding these premises is crucial to understanding co-creation since they each individually highlight the new roles of all parties in value co-creation.

Table 3: Service-dominant logic foundational premises (Vargo et al., 2008, Vargo and Lusch, 2004, Vargo and Lusch, 2008b, Vargo and Lusch, 2016)

Premise Number	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are distribution mechanisms for service provision.
FP4	Operant resources are the fundamental source of strategic benefit.
FP5	All economies are service economies.
FP6	Value is co-created by multiple actors, always including the beneficiary.
FP7	Actors cannot deliver value but can participate in the creation and offering of value propositions.
FP8	A service-centred view is inherently beneficiary oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary.
FP11	Value co-creation is coordinated through actor-generated institutions and institutional arrangements.

The first three premises (FP1, FP2 and FP3) established the role of service in exchange. This is explicitly stated in FP1, *'Service is the fundamental basis of exchange'*, and further buttressed in FP2, which highlights the fact that service was always the medium of exchange but that this was not immediately obvious because of indirect exchange utilised in our markets, '*Indirect exchange masks the fundamental basis of exchange'*. In today's market, two people working in two separate industries purchasing each other's products do so by exchanging money. This, however, hides the real exchange, which is that both individuals are swapping services offered in their respective industries for services in another industry. The money paid for the product masks the real nature of the exchange and is established in FP3, *'Goods are a distribution mechanism for service provision'.*

The next two premises (FP4 and FP5), *'Operant resources are the fundamental source of strategic benefit'* and '*All economies are service economies'*, respectively establish the need to switch focus from operand resources to operant resources across every sector of the economy. Each sector of the economy should look to its operant resources for improved competitive advantage. This is a sharp contrast from the GD logic, where operand resources were thought to determine success.

FP6 and FP7 both re-define the roles of the consumer, *'Value is co-created by multiple actors, always including the beneficiary'* and the firm *'Actors cannot deliver value but can participate in the creation and offering of value propositions'* respectively. Both premises support the increasing importance of customers in determining the value, a power shift from the firm, which was thought to dominate value creation (in the GD logic), to the consumer,

who is now known to determine the value of items and both show the future of value creation is co-creation, where firms can only offer propositions which will be ultimately determined by the consumer.

FP8 further highlights the importance of consumers, first by stating '*A service-centred view is inherently beneficiary oriented and relational',* meaning that when adopting service as the dominant logic, a switch in orientation towards consumers is crucial, and since *'Value is always uniquely and phenomenologically determined by the beneficiary'* (FP10), by default, the focus of every value-creating encounter is the customer.

FP9 *'All social and economic actors are resource integrators'* focuses on the context of value creation, which is within networks, as opposed to within the firm in the GD logic, while FP11 *'Value co-creation is coordinated through actor-generated institutions and institutional arrangements'* introduces the concept of *'institutions',* which enable actors (firms and consumers) to accomplish higher levels of service exchange.

The understanding that consumers do not buy products for the sake of buying products but specifically to perform a service meant that goods were simply mere transmitters of services. Value can not be delivered or created by the firm but only proposed. With services becoming the medium of exchange of value, concepts such as the Four P's are now being redefined. 'Products' will be seen in terms of service flows, 'promotion' becomes oriented towards dialogue, 'price' gets replaced with value propositions and 'place' gets replaced with value networks and processes (Lusch et al., 2007).

Vargo and Lusch (2004) thus defined service as 'the application of competencies (operant resources) by any particular entity for the benefit of another'. Acknowledging service as the medium of exchange drove the need to further understand service innovation. Attempts to create a basis for systematic service innovation led to the development of initiatives such as service science, which was developed by IBM. The simultaneous development of Service Science by IBM in the business community paralleled the development of the SD logic in academe (Gummesson et al., 2010b) and showed that the shift in thinking about how value is created was not limited to academia. Service science, simply put, is the study of service systems (Vargo and Lusch, 2008b, Maglio and Spohrer, 2008), which are the collection of resources involved in the creation of value such as people, information and technology (operant resources). Service systems vary in size and every service system is both a provider and client of services that is connected by value propositions in value chains, value networks,

or value-creating systems, Normann (2001) via (Maglio and Spohrer, 2008). Key to understanding service science is the SD logic, which is a foundational philosophy of service science (Gummesson et al., 2010a, Vargo and Lusch, 2008b).

Gradually, the literature is continuing to grow, with publications on the SD logic and previous areas, processes and ventures focused on the exchange of value via goods are now being modified to reflect SD logic thinking. Zhang et al. (2015) developed a model for the practical application of value co-creation in health services with a view to improve service quality by collecting and interpreting feedback from consumers to develop promotion strategies. This reflects the need for dialogue when crafting promotion strategies, as explained by Lusch et al. (2007) in their discussion on the four P's. Other authors have focused on brands (Payne et al., 2009, Iglesias et al., 2020), supply chains (Lusch et al., 2010, Parimi and Chakraborty, 2020), innovation (Michel et al., 2008, Patricio et al., 2020) and competition through service (Lusch et al., 2007). All these support the increasing view that service is increasingly being accepted as the medium of the exchange of value.

Despite the increasing popularity of service as the basis for value exchange, and the switch from the GD logic to SD logic, a few authors have wondered whether value creation should be viewed only from an SD logic perspective. Although they acknowledge we do not live in a goods dominated world, they argue that the SD logic only focuses on value co-creation between the service provider and the consumer. Two major schools of thought have emerged from this viewpoint – the service logic and the consumer dominant logic.

2.3.3. Service Logic

The service logic (Gronroos, 2011, Grönroos and Voima, 2013) focuses on the interaction between the service provider (firm) and the customer. Grönroos argues that the creation of value in use by the consumer and value creation as an all-encompassing process (including activities of the firm and those of the consumer) cannot be included in the same analysis. One cannot have both and must choose only one notion of value creation (either value creation by both the firm and the customer or value creation in use by the customer). Specifically, the service logic argues against the seventh foundational premise proposed by Vargo and Lusch (2004), which states *'Firms cannot deliver/create value but can only make value propositions'* (this foundational premise was later modified to *'Actors cannot deliver value but can participate in the creation and offering of value propositions'(Vargo and Lusch, 2016)*). The service logic proposes that although customers are in charge of their value

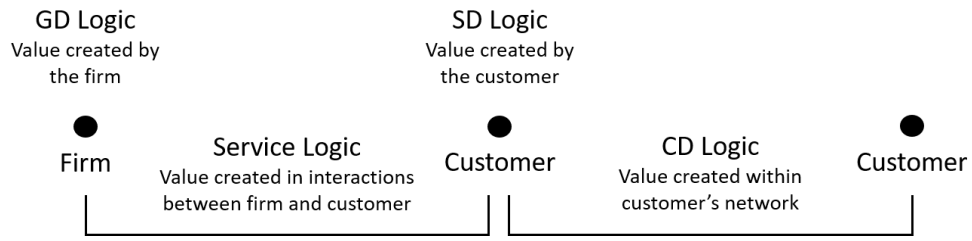
creation and fundamentally are the value creators, when firms take advantage of the opportunities available to interact with their customers, the firm also co-creates value with the customers.

2.3.4. Customer Dominant Logic

The Customer Dominant Logic (CD Logic) (Heinonen et al., 2010) argues that most of the new thinking in marketing logic focuses on revising the roles of the service provider and the consumer all from the perspective of what the service provider needs to do to succeed in business. The CD logic proposes taking a position with the customer at the centre as opposed to service in the SD logic or the service provider/consumer interaction in the service logic. Many researchers have argued that the ultimate goal of service is to propose/provide value for the customer (Grönroos and Svensson, 2008) and both the SD logic and service logic will result in an incomplete understanding of how consumers utilise the service and how value is formed within the consumer's network. Work done by Ekman et al. (2016) focused on understanding value co-creation beyond the dyad of the service provider and the consumer and tried to provide an understanding of the multiple types of value that occur in a network of actors. Ekman et al. (2016) followed the deployment of self-service technologies within a service network and found that the actors take on different roles at different times and perceive different types of co-created value. Likewise, Rihova et al. (2013) worked on value co-creation within the consumer's social sphere. Rihova et al. (2013) focused on socially dense contexts in which customers consume together in dyads or networks identified value co-creation in four distinct types of social layers and proposed a framework which service managers could use to facilitate customer-to-customer (C2C) co-creation. Other authors have also worked on the CD logic (Cheung and To, 2015, Cheung and To, 2016) and their works provide an extension to the foundation already set by the SD logic, which is to probe further into value co-creation beyond the dyad of the consumer and the service provider into the network of activities occurring within the consumer sphere.

Figure 2 below shows the value creation paradigms along a continuum from the firm to the customer's network. On the far left is the GD logic, where value was thought to be created by the firm, and in the centre is the SD logic, where value is created by the consumer. Midway between the firm and the customer is the Service Logic, where value is created through interactions between the firm and the customer and midway between the two customers is the CD Logic, where value is created within the customer's network.

Figure 2: Value Creation Paradigms



The SD logic approach, like most approaches towards value creation (CD and Service logic), has highlighted the positive bias existing in the literature towards value related processes, Plé and Cáceres (2010). In the argument supporting the GD logic, the purpose of value was to increase the wealth of the firm (Vargo et al., 2008), which was usually during the exchange of goods for money. For the SD logic, Vargo and Lusch (2004) argued that the purpose of value was an increase in the adaptability, survivability and wellbeing of a system through service. The term 'increase' in the argument presents a view that all value related processes result in the wellbeing of service systems. Echeverri and Skalen (2011) argue that this resonates poorly with experiences we have all had as consumers, likewise the experiences frontline employees have when serving customers, and they highlighted the fact that interactive value formation (value-in-use) is clearly not only linked to positive outcomes. There is a downside which we all experience and this is not equally reflected in the literature.

The shift in locus and the rapid change in the process of value creation from a firm centric view to personalised consumer experiences, however, has not been the only observed change over the years. Widescale availability of the internet and its emphasis on interactivity, speed, openness and individuality has increased the consumer's ability to challenge the corporate logic of value creation (Prahalad and Ramaswamy, 2002). Consumers that were previously thought to be passive started taking active roles at various points across the value chain of goods and services (Vargo and Lusch, 2004) as a result of the empowerment provided by the internet. Consumers could now provide feedback, connect with other individuals across the internet, access more information about goods and services and also influence the decisions of other individuals (Prahalad and Ramaswamy, 2004c). It became clear that firms could no longer act alone in the development of products and that interaction between the firm and its consumers was fast becoming the locus of value creation (Prahalad and Ramaswamy, 2004b). Observing this change in paradigm, Prahalad and Ramaswamy (2004a) thus labelled this new

process of value creation between the firm and its customers the co-creation of value and this is fundamentally based on the Service-Dominant logic of value creation.

2.4. Co-creation of Value

Several authors have provided definitions of what co-creation is (Table 4). Prahalad and Ramaswamy (2004c) defined co-creation as the process where more than one party joins forces to interact, learn and share information to create value. Galvagno and Dalli (2014) defined co-creation as the joint, collaborative, concurrent, peer-like process of producing new value, both materially and symbolically, while (Zwass, 2010) defined co-creation as the participation of consumers along with producers in the creation of value in the marketplace.

Table 4: Definitions of co-creation and emerging themes

Definition	Themes						Source
	Collaboration	Process	Innovation	Active, Creative & Social	Resources	Degree/Stages of Collaboration	
The process where more than one party joins forces to interact, learn and share information to create value.	●	●			●		Prahalad and Ramaswamy (2004c)
Collaborative work between a consumer and a firm in an innovation process, whereby the consumer and supplier engage (to varying degrees) in the activity of co-ideation, co-design, co-development and co-creation of new products or services		●	●			●	Prahalad and Ramaswamy (2004c)
The participation of consumers along with producers in the creation of value in the marketplace.	●					●	(Zwass, 2010)
A process for developing systems, products or services through collaboration among customers, managers, employees and other stakeholders	●	●	●				Ramaswamy and Gouillart (2010)
An active, creative, and social process based on collaboration between organisations and participants that generates benefits for all and creates value for stakeholders	●	●		●			Ind et al. (2012)
An interactive, creative and social process between stakeholders that is initiated by the firm at different stages of the value creation process.	●	●		●		●	Roser et al. (2013)
The joint, collaborative, concurrent, peer-like process of producing new value, both materially and symbolically.	●	●					Galvagno and Dalli (2014)
Joint activities of both parties (customers and service providers) to contribute to the value that emerges for one or both parties.	●	●					Zhang et al. (2015)
An active, creative and social process based on collaboration between organizations and participants that generates mutual benefits for all stakeholders	●			●			Kaufmann et al. (2016)
An enactment of interactional creation across interactive system-environments (afforded by interactive platforms), entailing agencing engagements and structuring organizations	●	●			●	●	Ramaswamy and Ozcan (2018)

A focus on collaboration and processes can be seen across most definitions of co-creation. This highlights the crucial point that co-creation is an outcome of interactive processes. Co-creation not only involves more than one party as its name implies but is the outcome of a process of interactions between these parties. These processes could be firm or customer orchestrated (Carù and Cova, 2015). The definitions also show these collaborations occur at different stages along the value chain and the level of involvement of each party differs (Fleischman et al., 2015). This shows the dynamic nature of co-creation and the importance of understanding the stages where these interactions are likely to occur and what degree of involvement is required from each party to facilitate or support value creation.

While the above definitions provide simple and straightforward descriptions of what co-creation is, the conceptualisation of co-creation is still often ambiguous and warrants the need for further clarification (Ballantyne et al., 2011). This ambiguity is due to the surge in research on co-creation over the years, which provides a variety of approaches to co-creation (Saarijärvi et al., 2013). It is important to identify and clarify these approaches and define co-creation before delving into other aspects of co-creation.

The literature on co-creation suggests two major approaches. The first approach refers to the use of the term ‘co-creation’ to describe the firm’s effort in new product development, service delivery and the creation of online communities. In these environments, the customers are ‘put to work’ to generate ideas, develop content and perform tasks for themselves whilst simultaneously creating value. This approach still sees consumers as some sort of resource or target which the firm could act on or ‘work with’ to generate value and it relies on some sort of exchange. The second refers to the use of the term ‘co-creation’ in the consumption of goods and services, which is independent of the company’s intervention. The term ‘co-creation’ here seems to refer mainly to value generated in use of the product or service and depends entirely on the user's experience of the proposition.

The complexity in the use of the term ‘co-creation’ was also identified by Saarijärvi et al. (2013), who argued that much of the confusion surrounding the term ‘co-creation’ is due to deferring interpretations of what constitutes the terms ‘value’ ‘co’ and ‘creation’. (Saarijärvi et al., 2013, Grönroos and Ravald, 2011, Gronroos, 2011) argue that clarification of the roles of the different actors involved in value creation is important to better understand the concept. An understanding of what kind of value is being created for either the firm or the consumer, what kind of resources (B2B, B2C, C2B and C2C) and through what mechanisms

(Table 5), would reduce the ambiguity in our understanding of value co-creation. In an effort to develop a fresh conceptualisation of the term co-creation, to unify its meaning Ramaswamy and Ozcan (2018) sought to unify the perspective to what co-creation is, by anchoring its theorization in interactive system-environments and thus defined co-creation as '*an enactment of interactional creation across interactive system-environments (afforded by interactive platforms), entailing agencing engagements and structuring organizations'*.

Table 5: A breakdown of Value Co-Creation (Saarijärvi et al., 2013)

Value	Co	Creation
What kind of Value for whom?	By what kind of resources	Through what mechanism

2.4.1. Value Co-creation Dimensions

The lack of a consensus on what co-creation is (Ramaswamy and Ozcan, 2018) is also reflected in the numerous attempts to identify its dimensions. Ranjan and Read (2014), from a review of 149 publications, concluded that co-creation is a third-order dimension with two second-order dimensions: co-production and value-in-use, where co-production consists of direct or indirect "coworking with customers" or participation in the product/service design process, while value-in-use extends beyond co-production and is derived from the user's use context and processes including time, location, or uncertain conditions (Table 6). Merz et al. (2018) also defined co-creation as a third-order dimension with two second-order dimensions: customer motivation and customer-owned resources. Customer motivation includes dimensions which drive consumers to co-create value with the firm, while consumer owned resources refers to factors which consumers have at their disposal which can facilitate co-creation (Table 6). Finally, Yi and Gong (2013) explored the nature of customer value co-creation and conceptualised co-creation as a third order dimension consisting of two second order dimensions: customer citizenship and customer participation. Customer participation behaviour refers to all required (in-role) behaviour necessary for successful value co-creation, and customer citizenship behaviour, which refers to voluntary (extra-role) behaviour which provides extraordinary value to the firm but is not necessarily required for value co-creation (Table 6).

Table 6: Value Co-creation Dimensions

Author	3rd Order Dimension	2nd Order Dimensions	1st Order Dimensions
(Yi and Gong, 2013)	Co-creation	Customer Citizenship Behaviour All required (in-role) behaviour necessary for successful value co-creation,	Information Seeking
			Information Sharing
			Responsible Behaviour
			Personal Interaction
		Customer Participation Behaviour Voluntary (extra-role) behaviour which provides extraordinary value to the firm but is not necessarily required for value co-creation	Feedback
			Advocacy
			Helping
			Tolerance
(Ranjan and Read, 2014)	Co-creation	Co-production A set of activities carried out by economic and social actors within networks, executed through collaboration and dialogue to integrate mutual resources into value configuration	Knowledge
			Equity
			Interaction
		Value-in-use The customer's experiential evaluation of the product or service proposition beyond its functional attributes and in accordance with his/her individual motivation, specialized competences, actions, processes, and performances	Experience
			Personalisation
			Relationship
(Merz et al., 2018)	Co-creation	Customer Motivation A group of factors which drive consumers to co-create value with the firm	Trustworthiness
			Commitment
			Passion
		Customer Owned Resources Factors which consumers have at their disposal which can facilitate co-creation	Knowledge
			Skills
			Creativity
			Connectedness

Whilst all three conceptualise co-creation as a third-order dimension, they differ in their conceptualisations and approach to co-creation. Ranjan and Read (2014) approach co-creation from a service production perspective, Merz et al. (2018) approach co-creation from a brand value perspective, while Yi and Gong (2013) approach co-creation from a behavioural perspective. This is reflected in the individual first-order dimensions (Table 6). Irrespective of the approach to co-creation, a unifying theme amongst all conceptualisations is the interaction between both the firm and consumers (Echeverri and Salomonson, 2017).

2.4.2. Co-creation and the Firm

The fundamental idea behind co-creation is the firm's ability to tap into its network of consumers, which act as a pool of knowledge which the firm could leverage to generate a range of benefits. Limitations imposed on the firm as a result of the firm's limited resources can now be eliminated since the firm can now tap into the resources available within its immediate business environment. Since co-creation was highlighted in 2004, many firms have found increasing ways to include consumers across the value chain of production (Ramaswamy and Ozcan, 2013). A lot of this developed as a result of Prahalad and Ramaswamy (2004c)'s introduction of the DART model, which encapsulates the process of co-creation. DART, which is an acronym for Dialogue, Access, Risk Assessment and Transparency, has been referred to as the 'building blocks' of co-creation. It summarises the methods by which organisations can better indulge their consumers in co-creation across each stage on the value chain.

Dialogue involves more than just a group of conversations between the customer and the firm. It suggests interactivity, deeper engagement and an inclination towards acting when necessary. To produce successful co-creation ventures, firms will have to create avenues for dialogue between themselves and their customers. Dialogue also implies a balance of power between both parties involved in co-creation (Prahalad and Ramaswamy, 2004b). Both parties thus become joint problem-solvers – a sharp contrast to the prior notion that firms had to provide all the solutions.

To ensure proper dialogue, firms cannot operate in their usual highly secretive mode - holding all the cards close to their chest. The rise of the internet has neutralised the effect of the information asymmetry from which firms typically benefited. Consumers now have access to more information and can make more informed decisions about a firm's offerings. To succeed in co-creation, firm's would have to ensure transparency and access to information to match or exceed the level of information access their customers are accustomed to.

The high levels of access and transparency also mean customers will be more aware of the risks they could face when dealing with the firm. Creating enough access and transparency to ensure proper risk assessment by the customer will be crucial to the success of co-creation. It is not enough to highlight the general risks associated with products. Customers need to know how it affects them individually. A drug with a typical side effect may be shunned by many

customers. This, however, does not stop other customers from purchasing it despite its associated side effects. Giving customers the right level of access and transparency will help them assess the risks, which in turn helps facilitate better dialogue or interactivity between both parties.

It is interesting to note that DART is inevitable (Prahalad and Ramaswamy, 2004b). It is a process that will occur even if firms choose not to embrace it. Firms that choose to embrace DART, however, will have better opportunities for value co-creation. Firms could also choose to combine various elements of the DART building blocks in any form that suits them (Prahalad and Ramaswamy, 2004c). This means that when planning co-creation ventures, firms could opt for more access and transparency, dialogue and transparency or risk assessment and dialogue for example. The combination of these blocks will provide new capabilities for the firm. Finally, DART interactions can be anywhere in the system and are not limited to the traditional points of exchange of value.

Where the DART model highlights the broader necessary steps to be taken to facilitate co-creation, it provides little insight into various other aspects of co-creation and sheds no light on the possibility of value co-destruction (an equally likely occurrence). These other areas (specifically focused on the positive co-creative encounters) are gradually being researched in the literature. Hoyer et al. (2010) focused on co-creation in New Product Development (NPD) and tried to highlight the major stimulators of and impediments to the process of co-creation in NPD, the impact of co-creation at each stage of the NPD process, and various firm-related and consumer-related outcomes of co-creation in NPD. Hoyer et al. (2010) identified consumer-level motivators, firm-level impediments, and firm-level stimulators – each of which could increase the scope and intensity of co-creation. Payne et al. (2007) developed a conceptual process-based framework for understanding and managing the co-creation of value. This framework places the consumer on the same level of importance with the firm and central to this framework are encounter processes, which are interactions between the customer processes (Emotion, Cognition and Behaviour) and Supplier (firm) processes (Co-creation opportunities, Planning and Implementation processes). Others have approached the co-creation paradigm from a strategic perspective, looking at how the available co-creation design choices fit into the firm's strategic priorities, listing the questions decision-makers need to ask before indulging in co-creation. DeFillippi et al. (2014) identified different steps in the process of designing co-creation ventures, which include setting objectives, selecting arenas, deciding on the collaborators, choosing tools and

processes and setting up contracts (Bhalla, 2014) and they identified the various ways firms involve consumers/stakeholders in co-creation, which includes community or social marketing, design thinking, the co-creative transformation of processes, crowdsourcing and open innovation (Gouillart, 2014). There has also been substantial work done on identifying the benefits of co-creation to the firm (DeFillippi et al., 2014, Ramaswamy, 2010). However, little work in any of the categories noted above has been directed towards the co-destruction of value.

2.4.3. Co-creation and the Consumer

With the change in the understanding of the locus of value creation, consumers now play an important part in value creation. This was highlighted by Vargo and Lusch (2004) in the eleven foundational premises of the SD logic. FP6-8 state *'Value is co-created by multiple actors, always including the beneficiary', 'Actors cannot deliver value but can participate in the creation and offering of value propositions'* and *'A service-centred view is inherently beneficiary oriented and relational'* respectively. It is the experience of a product or service by consumers that determines its value (Prahalad and Ramaswamy, 2004b, Vargo et al., 2008) and consumers co-create value with the firm across the entire service value chain (Yi and Gong, 2013). Understanding consumer behaviour as co-creators is therefore important if firms are to maximise the consumer's value-creating potential.

What value is to the firm is different to what value is to the consumer (Grönroos and Voima, 2013) and the literature is showing an increasing focus on co-creation beyond the dyad of the firm and the consumer, moving more into the network of activities occurring in the consumer's sphere. Morevover, Saarijärvi et al. (2013) also argued that, to better understand co-creation, it is important to clarify the roles, identify who the value is being created for and what mechanisms are being utilised. To this end, consumers are taking centre stage in the co-creation literature and each aspect of the consumer's involvement in co-creation is being researched. Hoyer et al. (2010) in their conceptual paper tried to answer the question 'why are some consumers and firms more willing to engage in co-creation in new product development (NPD) than others?' They realized that co-creation between firms and consumers could vary in scope (across different stages of NPD) and intensity (how much does the firm rely on its consumers) and tried to identify factors which could influence the degree of co-creation. The three sets of antecedents they identified include consumer-level motivators, firm-level impediments, and firm-level stimulators, each of which could

influence the scope and intensity of co-creation. The consumer-level motivators they identified were financial, social, technological and psychological factors, while the firm-level impediments they identified were secrecy concerns, sharing of intellectual property, information overload and production infeasibility. Hoyer et al. (2010) did not go into detail on how these factors influence consumer motivation, neither did they empirically test their constructs. They made it clear, however, that both the firm and the consumer could influence the degree and scope of co-creation. The firm-level impediments they identified were similar to factors such as access and transparency, as identified in Prahalad and Ramaswamy (2004b)'s DART model. Where these factors were highlighted as factors which would facilitate co-creation in the DART model, they were highlighted here as factors which, when not done, could hamper co-creation. While both parties were, in essence, discussing similar things, the focus here is on the negative effect of not being transparent or being secretive and not providing access or sharing intellectual property. Specifically, factors such as information overload and production infeasibility could result in co-destruction of value, which was not explicitly stated in Hoyer et al. (2010)'s paper. When too much information is generated, it could reduce the ability of the firm to make decisions; likewise the inability of the firm to produce products conceived during co-creation ventures with their customers.

Roberts et al. (2014), in contrast to Hoyer et al. (2010), who focused on co-creation in NPD, Roberts et al. (2014) tried to identify consumer motives to indulge in co-creation innovation with a focus on why the motivations differ across different types of activities. These activities include innovating independently, innovating within the community and innovating by collaborating directly with the firm. They tried to explain these motives using the goal-based theory, social exchange theory and expectancy theory respectively, and they identified hedonic and personal development motives (egocentric motives) as motives for independent innovation, altruistic and social motives (Altruistic motives) as motives for community innovation and economic motives (opportunity/goal motives) as motives for innovating with the firm. Both Roberts et al. (2014) and Hoyer et al. (2010) identify similar motives. Hoyer et al. (2010), however, focused only on innovating with the firm whilst Roberts et al. (2014) identified motives across a spectrum of innovating beyond the firm and they provide a more detailed description of each group of factors. Roberts et al. interviewed online participants in the gaming and video games industry and analysed the transcripts of the interviews to identify the constructs. It is interesting to note that no aspect of these interviews highlighted the possibility of co-destruction of value, which could potentially occur within participants of

online gamers. This suggests that the questions were framed to identify only co-creation motives, leaving out motives for co-destruction. On page 158, Roberts et al. (2014) highlighted a section of a transcript relating to customers' motives for designing user generated content.

'*Sometimes it can be challenging (3D Graphics), but other times it can be really fun and interesting [...] Challenging is a positive word for me. I feel pride and accomplishment when I complete something that is deemed a "Challenge". I benefit because I have learned a new skill, and I become confident in my abilities'*

There is no doubt that *'challenging'* could be a positive word. It could also be a negative word and, depending on the participant, it could evoke a spirit of aspiration or apathy. This 'other side' of the word, which could result in co-destruction, however, was not identified in their paper. There would have been many individuals who would have been discouraged by the challenging nature of generating user content and for this group of people, value would have been destroyed as opposed to being created. Worse still, they could have gone on to tell other people 'it is too challenging', which could be a negative word of mouth, effectively destroying value. These individuals, however, are not likely to be found on such user generating platforms and are automatically excluded from samples taken from these platforms. This raises questions about how we investigate co-creation and shows that if we are to study co-destruction, we need not only a change in the way we think but also a change in methodology.

A similar case could be found in the work done by Nambisan and Baron (2009). Nambisan and Baron (2009) tried to identify consumer motives for participation in co-creation in virtual consumer environments and concluded that consumer involvement in co-creation can be explained by the beliefs of consumers about the benefits of engaging in such activities. They identified a set of 4 benefits (cognitive, social integrative, personal integrative and hedonic) associated with the Uses and Gratifications Theory and identified the antecedents to benefits and how the need for benefits can make consumers participate in co-creation. Transcripts from their interviews also show the possibilities of value-destroying activities but these were not identified. Page 400 shows two of these:

'The more technical and difficult the product-related problem is, the more eager I am (to contribute) . . . not only is the problem-solving enjoyable and satisfying, but it also gives me an opportunity to learn more intricate aspects regarding the product'

And

'The interaction that gave me the most satisfaction and happiness was the one which I followed up with a (peer) customer over the course of several days to fine-tune a solution to a specific problem….'

'The more technical and difficult the product-related problem is ' not everyone would get stirred up to participate in difficult product related problems and the statement *'The interaction that gave me the most satisfaction and happiness was the one which I followed up with'* shows there are interactions that could give slightly less happiness and satisfaction or even no happiness or satisfaction. These interactions were not followed up by this customer, showing a lack of value creation from such interactions. This also shows there could be a neutral point where interactions neither create nor destroy value, hinting at a possible continuum for value co-creation/co-destruction. Füller (2010) also investigated how consumer motivations and personalities influence consumer expectations in virtual co-creation encounters and identified the importance of intangibles such as feedback or recognition and the interaction experience to consumers participating in virtual co-creation communities. When innovation managers were asked to rank consumer expected incentives, interaction related incentives such as the 'fun factor' were found in the bottom spaces in the study. This shows that co-creation ventures can be developed with attributes different to what participants are interested in or motivated about, which will result in sub-optimal performance in the venture and value will not be maximally co-created. This misuse of resources has been linked to the co-destruction of value (Plé and Cáceres, 2010).

The publications on co-creation continue to grow, focusing only on the successful/positive encounters between firms and consumers, consumers and consumers and firms and firms. There is a lack of focus on the unsuccessful/negative encounters. This has created a significant gap in the literature, creating the impression that co-creation is the holy grail of competition. There is a need for more focus on the negative encounters (Echeverri and Skalen, 2011, Plé and Cáceres, 2010) - a gap this work is looking to fill.

Chapter 3. Co-destruction of Value – A Stakeholder Conceptual Review

3.1. Introduction

This chapter seeks to examine the literature on the co-destruction of value within the SD logic from the inception of the concept until the present day (2010 – 2020), to develop a clear understanding of its conceptualisation relative to the literature on the co-creation of value and to identify gaps in this area. Specifically, this work will try to answer these questions:

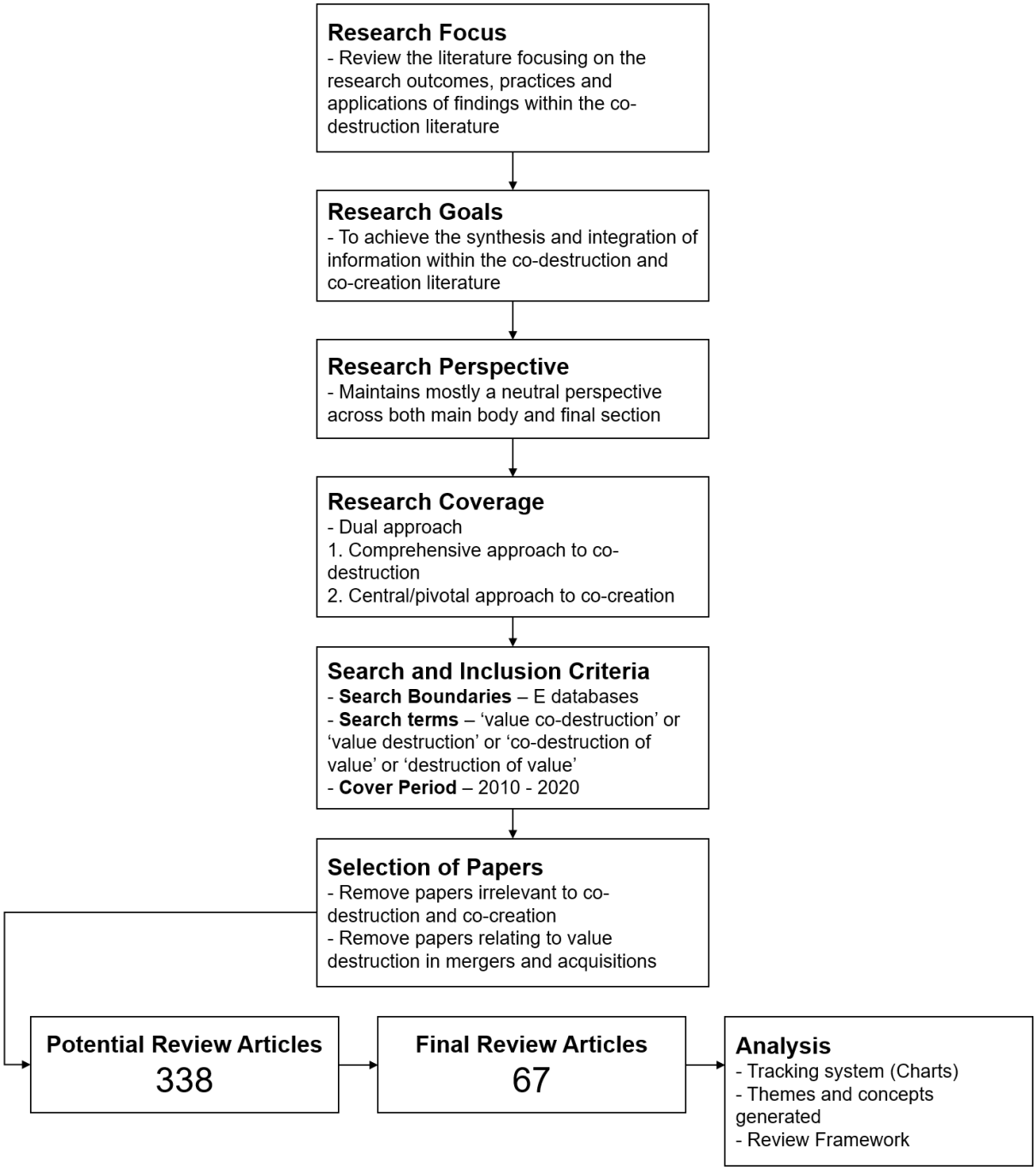
1. What is the co-destruction of value?
2. How does the co-destruction of value occur?
3. What are the pressing research gaps to address when it comes to co-destruction?

This chapter is divided into three sections. The methodology section outlines the steps taken to identify articles within the co-creation/co-destruction literature. Next is the main body, which is divided into two sub-sections. The first section focuses on defining the co-destruction of value, it identifies the locus of value co-destruction and touches on how value is destroyed through resource mis-integration and in practice. The second sub-section focuses on understanding co-destruction from the perspective of various actors involved in value formation. This sub-section touches on co-destruction by the firm (business to business and business to consumer co-destruction of value), consumers, co-destruction beyond the dyad of the firm in multiparty interactions and co-destruction in virtual communities. This is followed by a final section which highlights the pressing research gaps to be addressed within the co-destruction literature.

3.2. Review Methodology

This review follows a systematic approach to reviewing the literature and is structured in line with (Cooper, 1998) along with its application in works such as (Cooper and DeNeve, 1998) and (Imel, 2011). Cooper's taxonomy is based on an extensive analysis of literature reviews and highlights the steps which help define review methodologies. It is a useful tool in planning for the structure of a review (Imel, 2011). It contains six identifying characteristics of review papers (research focus, research goals, research perspective, research coverage, research organization, and research audience), each of which is further divided into different categories (Figure 3).

Figure 3: Summary of the review process



Research Focus: This concerns the material that is of central interest within the research. According to Cooper (1998), this could be one or more of any of four areas, namely research outcomes, research methods, theories and practices or applications. In this review, the research focus was on the research outcomes, theories and applications of the selected articles. Whilst the focus was on value co-destruction, the review utilised related articles within the co-creation literature to highlight the degree to which co-destruction has been

neglected in the literature and areas for further research. Specifically, it has focused on the outcomes and practices of research on co-destruction, published between 2010 and 2019 and pivotal research on co-creation (both within the business management literature). The year 2010 was selected as a cut-off because it was the year when Ple and Caceres introduced the term co-destruction and it marks the starting point within the literature where articles on value destruction within the SD logic began to emerge.

Research Goals: Review goals highlight what the review is intended to achieve and information synthesis is typically at the heart of most reviews (Torraco, 2005). As with the research focus, reviews can have multiple research goals (Cooper, 1998). The goals of this review can be broadly divided into two. The first is to synthesise and integrate the information within the co-destruction and co-creation literature. This was done with a view to generate frameworks which can be used to better understand how value is co-destroyed. The second goal is to identify issues central to the co-destruction of value and identify questions or areas that future research should focus on. Whilst the co-destruction literature is just emerging, the co-creation literature is much more established. Cues were taken from the already established research done on co-creation to identify issues that may be critical to co-destruction.

Research Perspective: This review maintains a neutral perspective. This is consistent across the main body and final section of the review. In the final section, findings were synthesised to highlight gaps within the co-destruction literature. The use of a neutral perspective is maintained within Cooper's taxonomy.

Research Coverage: This review adopts a dual approach, due to the need to simultaneously identify publications relevant to co-destruction and compare and contrast these to co-creation. In identifying publications on co-destruction, a comprehensive and systemic approach was adopted and an attempt was made to identify all works published relevant to co-destruction within the SD logic. When it came to co-creation, complementary papers were utilised where necessary to put co-destruction into perspective. These co-creation papers were selected with a preference for highly cited papers and based on their relevance to the co-destruction themes discussed. Thus, for example, where co-destruction themes such as resources were being discussed, highly cited co-creation papers on co-creation were utilised. The co-creation papers were identified by running an initial search on Scopus, Ebsco and Web of Science and subsequently sorted out based on the number of citations. Finally, the co-creation papers were

used to put co-destruction into perspective by highlighting the thematic focus on co-creation within the literature and potential gaps in the co-destruction literature.

Search and Inclusion criteria: A search to identify articles on co-destruction was conducted, querying available databases using relevant criteria. Three databases with significant coverage of the co-destruction literature (Scopus, Ebsco and Web of Science) were selected and a search was conducted using keywords such as “value co-destruction", "value destruction", "co-destruction of value", "destruction of value". These keywords were specifically selected to filter articles touching on value destruction within the SD logic since the term ‘co-destruction’ was coined. This included articles specifically discussing co-destruction and articles on co-creation touching on co-destruction within the SD logic. Results were limited only to articles, reviews, book chapters, articles in press, editorials and business articles that were published in English. The search returned a total of 146 articles on Scopus, 78 from Ebsco and 114 from Web of Science. All articles from all three databases (total =338) were selected and their abstracts and citations and keywords were downloaded.

Selection of Papers: The title and abstracts of the articles were assessed to determine their suitability for the review. Articles that could not be downloaded and book reviews were removed from the list. This process of selection resulted in a range of 67 articles (Table 7).

Table 7: Results of database search

Database	Keyword	Results	Selected
Ebsco	Value co-destruction	78	
Scopus	Value destruction	146	67
Web of Science	Co-destruction of value	114	
	Destruction of value		

This was made up of various articles relating to co-destruction and value within the context of the SD logic and a few on the destruction of value outside the SD logic. The majority of the articles were published between 2015 and 2019 (Figure 4), showing a slowly growing focus on value destruction within the SD logic, contrasting with the low amount of publications in the first five years following the introduction of the term co-destruction. A range of research methods were utilised across the articles (Figure 5). Case studies and interviews were the most popular methods, followed by conceptual papers. Other methods include netnography, which reflects the focus on value co-destruction within virtual communities and the critical incident approach, which was highlighted by Plé and Cáceres

(2010) as an appropriate research method to collect salient past experiences within service systems.

Figure 4: Year of publication

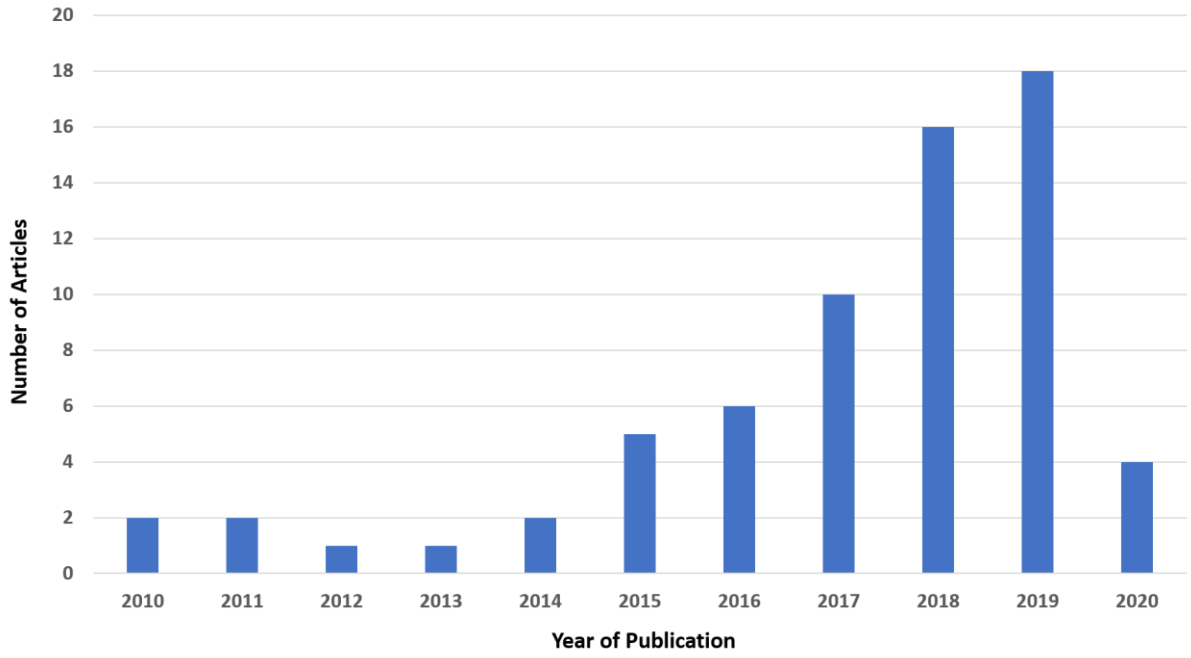
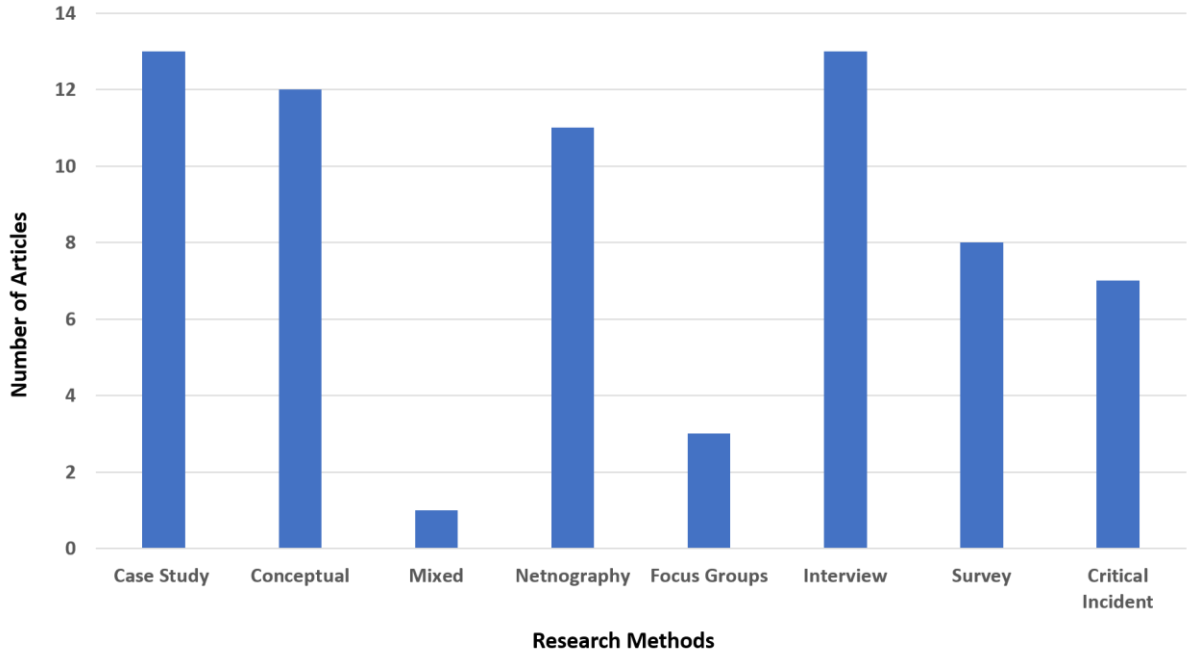


Figure 5: Research methods adopted by the reviewed papers



Analysis: Each article was scanned and sorted to ensure familiarity with the selected material (Imel, 2011). This was followed by the development of a tracking system using charts (Smith, 2008, Trevisan, 2004). Each article was thoroughly read to ensure early identification of themes and concepts (Bruce, 1994), methods employed and to chronologically arrange the publications. To ensure a systematic process, Cooper's taxonomy of research organisation was retained, specifying how reviews can be arranged either historically, chronologically or conceptually. The conceptual method of organisation was selected because this ensures that works relating to the same abstract ideas appear together and it would be best to support the research goals of synthesising and integrating findings within the co-destruction and co-creation literature and identifying issues central to the co-destruction of value. The identified themes and concepts were used to develop a skeleton framework on which the review was developed and written.

3.3. Co-destruction of Value

The notion of value destruction within the marketing literature is not new. Within the GD logic, situations where consumers have demonstrated negative behaviours to firms have been extensively studied. These studies have employed a myriad of terms (Table 8), including but not limited to 'jaycustomer behaviour' (Lovelock, 1994), 'dysfunctional customer behaviour' (Harris and Reynolds, 2003), 'deviant customer behaviour' (Moschis and Cox, 1989) and 'abberant customer behaviour' (Fullerton and Punj, 1993). Common to these terms is a focus on consumer behaviours which deviate from from societal expectations (Moschis and Cox, 1989, Fullerton and Punj, 1993) and consumer behaviours which can be intentional or unintentional but generally cause problems for the firm (Harris and Reynolds, 2003, Lovelock, 1994). Despite the differing foundational premises between the GD logic and the SD logic, parallels can be drawn between their conceptualisation of value destruction. Implied in both logics is the assumption that there are societally prescribed criteria for the behaviours of its members, and these behaviours are generally based on normative theories of human behaviour (Moschis and Cox, 1989). Value destruction under the GD logic and the SD logic also refer to consumer behaviours which are intentional and unintentional and which could potentially harm the firm (Harris and Reynolds, 2003, Lovelock, 1994, Plé and Cáceres, 2010).

Table 8: Conceptualisations of value destruction under the GD logic

Term	Definition	Reference
Deviant consumer behaviour	Consumer behaviour which differs from some norm or standard often in the form of customs, manners, rules and regulations, laws and mores.	(Moschis and Cox, 1989)
Abberant customer behaviour	Behaviour in exchange settings which violates the generally accepted norms of conduct in such situations and which is therefore held in disrepute by marketers and by most consumers.	(Fullerton and Punj, 1993)
Jaycustomer	Those who deliberately act in a thoughtless or in an abusive manner, causing problems for the firm, employees, or other customers.	(Lovelock, 1994)
Dysfunctional customer behaviour	Actions by customers who intentionally or unintentionally, overtly or covertly, act in a manner that, in some way, disrupts otherwise functional service encounters.	(Harris and Reynolds, 2003)

Within the GD logic firms were considered to be value creators, consumers were considered to be value destroyers and value was assumed to be exchanged in a market. With the emergence of the SD logic (Vargo and Lusch, 2016) and the redefinition of firm and consumer roles, both consumers and firms are now known as value co-creators (Prahalad and Ramaswamy, 2004b) and value co-destroyers (Plé and Cáceres, 2010). The blurring roles of the firm and the consumer under the SD logic make it difficult to understand where value is created and where value is destroyed, making it difficult to understand the co-destruction of value.

Understanding co-destruction depends on our understanding of what value is and where value is formed within the SD logic. What value is and how it is formed, however, are still questions that are open to debate (Gronroos, 2011) (see chapter 2 for more on value). Also, the focus on collaborative value formation and destruction has highlighted the importance of resources and how they are integrated in practice. These are not fully understood, however (Ple, 2016). The next sub-section defines value co-destruction within the SD logic. This discussion is followed by a review of the literature aiming to identify the locus of value co-destruction to shed more light on our understanding of how value is co-destroyed. The last two sub-sections discuss how value can be co-created and co-destroyed, due to resource integration or mis-integration and how resources are integrated in practice.

3.3.1. Defining Co-destruction

With only a few articles in the literature focusing specifically on co-destruction, definitions of co-destruction are not as diverse as those of co-creation (Table 4). Only four definitions of co-destruction (Table 9) were identified. The first one was by Plé and Cáceres (2010), who defined co-destruction as: *"an interactional process between service systems that results in a decline in at least one of the systems' well-being (which, given the nature of a service system, can be individual or organizational)".* This definition takes into consideration the importance of interactions in value formation and destruction (Gronroos, 2011). It also takes into consideration the role of service systems, which are the collection of resources involved in the creation of value such as people, information and technology (operant resources). Service systems can vary in size, with every system being both a provider and client of services that is connected by value propositions in value chains, value networks, or value-creating systems (Normann, 2001). The definition also introduces the major statement *"decline in the well-being of at least one of the interacting systems",* in which decline refers to unmet expectations. A second definition was proposed by Vafeas et al. (2016), who argued that the term co-destruction does not fully capture the phenomenon of value loss since the term destruction implies irreversible loss. Vafeas et al. (2016) opted for the term *diminished,* instead of *destroyed* and claimed *value diminution* could be a more accurate description in comparison to value destruction. They defined value diminution as *"the perceived suboptimal value realization that occurs as a consequence of resource deficiencies in, or resource misuse by, one or more interacting actors".* Thus, like Ple and Caceres' definition, an activity is classified as destructive when it does not meet the expectations of one or both members of the interaction.

More recent definitions of co-destruction (Corsaro, 2019, Cunha, 2019) highlight an interesting trend in the conceptualisation of co-destruction within the literature. Both Corsaro (2019) and Cunha (2019) view co-destruction as a process which occurs following the co-creation of value or the intention to co-create value. These definitions are in line with Plé and Cáceres (2010), in that interactions originally set up to co-create value could result in the unintentional co-destruction of value but fail to align with situations highlighted by Stieler et al. (2014), where value does not have to be co-created before being co-destroyed.

Table 9: Definitions of co-destruction and emerging themes

Concept	Definition	Themes						Source
		Collaboration	Process	Innovation	Active, Creative & Social	Resources	Degree/Stages of Collaboration	
Co-destruction	An interactional process between service systems that results in a decline in at least one of the systems' well-being (which, given the nature of a service system, can be individual or organizational).	•	•					Plé and Cáceres (2010)
	The perceived suboptimal value realisation that occurs as a consequence of resource deficiencies in, or resource misuse by, one or more interacting actors.	•				•		Vafeas et al. (2016)
	The process through which relational parties co-destroy the value they previously co-created, generating a diminution in the value actors appropriated.	•	•					(Corsaro, 2019)
	Describes the phenomenon in which multiple actors interact and integrate their resources to realize valuable benefits, and yet their collaborations result in a *decline of the wellbeing of at least one of these actors.*	•				•		(Cunha, 2019)

Like definitions of co-creation (Table 4), a focus on collaboration and processes can be seen across definitions of co-destruction. This highlights the crucial point that both co-destruction and co-creation are outcomes of interactive processes. They not only involve more than one party, as their names imply, but are outcomes of a process of interactions between these parties. These processes could be firm or customer orchestrated (Carù and Cova (2015) and are the basis of resource mis-integration or integration, which determine if value is destroyed or created. The definitions also show that these collaborations occur at different stages along the value chain and that the level of involvement of each party differs (Fleischman et al., 2015) This shows the dynamic nature of co-destruction and co-creation and the importance of understanding the stages where these interactions are likely to occur, and what degree of involvement is required from each party to facilitate or support value creation or destruction. Finally, a distinction can be seen between both definitions. Definitions of co-creation touch on innovation and creativity, and this is not reflected in any of the definitions for co-

destruction. This reflects the process of new product development and innovation fostered by co-creation and the literature has responded by providing studies focusing on this. However, this is lacking within the co-destruction literature, with only one publication found touching on co-destruction in new product development (Gebauer et al., 2013).

The literature on co-destruction shows a distinction between the use of the terms ‘diminish’ and ‘destroy’. Woodruff and Flint (2006) highlighted the possibility of value being diminished but did not talk about value co-destruction, implying that both diminished value and co-destroyed value are two separate constructs. Smith (2013) also questioned if certain scenarios can be described appropriately as value co-destruction, highlighting the possibility of diminished value through devaluation. Vafeas et al. (2016) named the process of value loss as value diminution, as opposed to value co-destruction, because it eliminates the need for the prefix ‘co’. “This often causes confusion, especially in scenarios where only one actor is destroying value” (Alford, 2016, Vafeas et al., 2016). Within the co-creation literature, the prefix ‘co’ has been criticised for causing confusion when it comes to understanding who creates value and who co-creates it (Saarijärvi et al., 2013), making it important to define the roles of the actors and for whom value is being created. The Vafeas et al. (2016) definition also avoids the use of the term 'decline in well-being', which has been criticised as an unclear way of expressing value co-destruction outcomes (Prior and Marcos-Cuevas, 2016). Instead, it opts to classify interactions as 'value diminishing', based on the resource deficiencies or resource misuse, which was also stated by Smith (2013). Whilst the definitions of both Vafeas et al. (2016) and Plé and Cáceres (2010) capture the essence of interactions and offer insights into what co-destruction/value diminution is, they fail to reflect certain attributes of value loss/destruction within the SD logic. The terms 'diminished' or 'destroy' refer to the process or act of making something smaller or less than its original status or size. To say value has been diminished is to say that value which already has been formed is being reduced to a lesser quantity. This, however, does not always apply to co-destruction, because value does not always have to be co-created before it can be co-destroyed (Stieler et al., 2014). There are interactions with outcomes in which the actors are better off (co-creation), worse off (co-destruction), or indifferent (no-creation) to value gained (Makkonen and Olkkonen, 2017). The series of events that lead to the destruction or diminution of value could either tarnish the already existing positive perception of value or it could prevent the creation of any positive perception of value. In addition, value creation for one actor could mean value destruction to another (Plé and Cáceres, 2010).

To identify if value is being destroyed, it is important to identify which dimension of value is being created (Stieler, 2014) and whose value is being co-created (Saarijärvi et al., 2013). This makes value destruction specific to the beneficiary. This is in line with the 10th foundational premise of the SD logic, which states that value can only be determined by the beneficiary. An appropriate definition of value loss in the SD logic should reflect the specificity of value destruction to the beneficiary. Taking this into consideration and accepting a similar definition of value as "an improvement in a system's well-being' which can be measured in terms of a system's ability to adapt or fit into its environment" (Vargo et al., 2008), a definition for co-destruction could be: '*A value undermining interaction for a service system'*. Undermining denotes both actions that weaken the existing status of an entity and actions that prevent an entity from realising its full potential. This definition also captures the specificity of value destruction, considering that value here is defined as "an improvement in a system's well-being". Any such interaction that weakens the value proposition affects the wellbeing of the system. Finally, it also reflects the fact that the type of value being destroyed only relates specifically to the service system for which value is being created.

3.3.2. Locus of Value Co-destruction

Understanding where value is co-destroyed depends on our understanding of what value is and the locus of the formation of value. In our understanding of where value is realised, various logics have emerged. The SD logic puts the locus of value formation on the beneficiary in a system where actors can only make value propositions (FP7 & FP10 (Vargo and Lusch, 2016)). However, Gronroos (2011) argues against the 7th foundational premise of the SD Logic, which states that "firms (actors or providers) cannot deliver/create value but can only make value propositions". Gronroos (2011) proposes a service logic (section 2.3.3) which focuses on interactions between firms (providers) and their customers (beneficiaries). Specifically, the service logic states that although customers are in charge of their value creation and fundamentally are the value creators, in situations when firms take advantage of the opportunities available to interact with their customers, the firm also co-creates value with the customers. A third logic, which views value creation from the consumer perspective – the customer dominant logic (CD logic) (section 2.3.4), proposes taking a position with a focus on the customer's network as opposed to service in the SD logic or the service provider/ consumer interaction in the service logic. The question of where value is destroyed depends on the logic we adopt for value creation and whose value is being created. Hill et al. (2016)

investigated value co-destruction within a maximum-security prison. Their focus on interactions between the wardens and the inmates revealed that the wardens (who could be seen as the provider) acted from a position of power, treating the inmates as less than fully human service beneficiaries. The actions of the wardens dehumanised the inmates, resulting in counterfactual thinking that culminates in an 'us vs. them' mentality by the inmates. This implies a two-step process to value co-destruction, where the wardens make a value-destroying proposition by mistreating the inmates and, if accepted by the inmates, results in an 'us vs. them' destruction of value scenario. This agrees with the SD logic's 7th premise, which states that actors/providers can only make value propositions. However, this does not result in co-destruction until it is deemed destructive by the beneficiary, who in this case are the inmates. This pattern of value co-destruction is observed within the literature (Kashif and Zarkada, 2015, Mills and Razmdoost, 2016) and applies to both intentional and unintentional value-destroying activities. Moving beyond the dyad of the firm and the consumer, value propositions by firms can be modified within the consumer sphere, resulting in the co-destruction of value. Carù and Cova (2015) utilised a multiple case vignette approach to study the collective experience of service dimensions. They identified the influence the presence of other actors could have on value creation during interactions. Seemingly positive intentions by firms, such as placing bets, could be modified by certain practices within the consumer sphere. These practices (e.g. queuing) are ambivalent and can result in value co-destruction or co-creation (Carù and Cova, 2015, Echeverri and Skalen, 2011). The eventual experience also depends on where the activity was initiated. If initiated by the firm, they could be managed. When they are initiated by actors outside the company, they are difficult or impossible to manage and are thus more likely to result in the co-destruction of value. This could also be better illustrated by the case of the multiple value dimensions observed by Stieler et al. (2014), where the resultant value destroyed was determined by the dimension of value being created. These multiple dimensions of co-created and co-destroyed value are explained further in the next section.

It is also important to note that there are instances where value is neither created nor destroyed. Recently, the literature has shown publications highlighting three different types of value outcomes as a result of interactive value formation – value co-destruction, value co-creation and value no-creation (Makkonen and Olkkonen, 2017, Sthapit and Björk, 2018). Value no-creation indicates a third outcome other than the dual outcomes of co-creation and co-destruction. Here, value is neither co-created nor co-destroyed and refers to a neutral

outcome during interactions. Makkonen and Olkkonen (2017) in their paper built a framework for interactive value formation (IVF) in inter-organisational relationships. This framework was utilised in a case study featuring a 3-year relationship between a museum and a media company and found co-destructive and no-creative instances dominated co-creative instances. Sthapit and Björk (2018), in their netnography study on IVF within tourism accommodation services, identified keywords which were linked to value co-creation (good, positive, excellent, great and nice), value co-destruction (bad, negative, worst, terrible and poor) and value no-creation (ok, average, standard, decent and not good not bad).

3.3.3. Value Co-destruction Through Resource Mis-integration

Just as resource integration is critical to value creation (Vargo et al., 2008), mis-integration of resources is a critical component of value destruction. This makes understanding the origin and nature of resources important. The shift from the GD logic to the SD logic, outlined in the eleven foundational premises (FP1-11) (Vargo and Lusch, 2016) (Table 3), highlights the importance of resources in value co-creation. FP4 states that "operant resources are the fundamental source of strategic benefit" (Vargo and Lusch, 2016). Fundamental to the SD logic is the focus on operant resources, which are resources that act on other resources such as knowledge and skills. Within the GD logic, however, the focus is on operand resources, which are resources acted on, such as goods (Constantin and Lusch, 1994, Vargo and Lusch, 2004). The ninth foundational premise (FP9) also states that "all social and economic actors are resource integrators" (Vargo and Lusch, 2004). The SD logic considers all customers to be value co-creators with the firm (Neghina et al., 2015), utilising their resources in a positive manner to create value. This is not always the case, however, since these resources can be utilised in an adverse manner, resulting in the co-destruction of value (Williams et al., 2016). This bipolar nature can be ascribed to all resources since they only acquire the status of resources in the function of the context of their use (Ple, 2016). Thus, a resource which is integrated within a system to positively create value could serve as a value-destroying resource within the same system or in other systems. This point was made by Plé and Cáceres (2010), who argued that value loss for one party could result in value gain for another.

Firms only serve the purpose of supporting other actors in their value co-creation processes by providing resources which fit into their practices within a service system (Storbacka et al., 2012). Actors also can enhance the creation of value-in-use, by providing resources and also help other actors in the service system integrate their resources with other existing resources

in the system (Storbacka et al., 2012). Therefore, for value to be co-created, resources have to be sacrificed (Zeithaml, 1988). In a conceptual paper by Ple (2016), a list of twelve resources which consumers utilise in value creation was constructed (Table 10). These resources, when sacrificed by the consumer and congruently integrated, could result in value creation.

Table 10: List of identified resources

Author	Identified Resources (Both Co-creation & Co-destruction)	
Ple (2016)	Informational Resources Emotional Resources Physical Resources Financial Resources Temporal Resources Behavioural Resources Relational Resources Social Resources Cultural Resources Role-related Resources Customer Ability Customer Willingness	
Smith (2013)	Material Resources, Self-Related Resources (self-efficacy) Social Resources (support and relationship benefits) Energies (time, money, knowledge, physical and emotional energy)	
(Malone et al., 2018)	**Positive Emotional Resources** Pleasure Excitement Enjoyment Happiness Fun Contentment	**Negative Emotional Resources** Hubris Sadness Frustration Disgust

Occasionally, these sacrificed resources can be misused in the system. This occurs when one actor or provider in a system has failed to integrate or utilise the available operant and operand resources of at least one of the other members of the service systems in an appropriate or expected manner from the other system's perspective (Plé and Cáceres, 2010). This misuse can be intentional or unintentional and can be as a result of various factors (Laud et al., 2019), resulting in value co-destruction. In situations where these resources are misused, possibly due to incongruent integration, consumers experience resource loss and, to gain back the lost resources, there is a tendency for consumers to sacrifice more resources in a process known as coping (Smith, 2013). This was identified by Smith (2013), when she investigated resource loss using a conservation of resources approach (COR). Smith identified a list of resources (Table 10) in an experiment involving respondents in three shopping centres in the North of England. COR theory focuses on how individuals try to

acquire more resources, by utilising their current ones. This is similar to value co-creation, during which systems interact to integrate resources to create value. When individuals use their resources to obtain more resources but do not get any in return, i.e. the expected outcome of the encounter is not met, there is a tendency to invest more resources with the hope of achieving their expected result (Farquhar and Robson, 2017, M. Smith, 2013). Further loss of resources, which is usually unexpected, impacts on the individual's behaviour and generates negative emotions. This ultimately results in value destruction and is triggered by the failure of the resource integration process to create the expected value. Smith's work showed how resource integrations which ought to result in value creation can result in value destruction by exploring the nature and process of value co-destruction occurring from an organisation's misuse of customer resources. Respondents were asked to define what they had expected from their experience with firms and what had not happened as expected. The respondents also described how the initial loss of resources triggered further interaction or investment of resources in the hope of recouping the lost resources.

The importance of resources in ensuring value co-creation was also stated by Leo and Zainuddin (2017) in their study on social marketing services, where value was found to be destroyed when there were incongruent resource applications and the misuse of the firm's resources by either actor, ultimately leading to the reduced usage of the service, termination of the service and strategic behavioural actions (finding alternative solutions). Other authors have also attributed value co-destruction to resource absence or misalignment in service systems. On one hand, Prior and Marcos-Cuevas (2016) identified value co-destruction in interfirm relationships. In such cases, co-destruction occurs when actors believe they are unable to achieve their desired outcomes from engaging in a collaborative process with other actors. This also occurs when there is a net deficit between actors' perceived benefits and the perceived costs from collaboration. On the other hand, Chathoth et al. (2014) argued that value destruction occurs within the firm when employees are not treated as operant resources. Malone et al. (2018), in their study of tourist consumption experiences, identified emotions (Table 10) as important resources which contribute to value co-creation and value co-destruction. Their study, which was grounded in the customer dominant logic (CD logic), showed how emotions as a customer operant resource contribute to value creation in the pre-consumption, core consumption and post-consumption (nostalgia) stages. These emotions could be positive or negative and contribute to value co-creation or co-destruction and emerge from congruent or incongruent practices respectively. To ensure value co-creation,

firms should have an understanding of how resources are integrated to co-create value and be able to identify customers who are failing to co-create. To this end, Farquhar and Robson (2017) argue that firms can selectively demarket customers failing to co-create by developing higher order operant resources or strategic capabilities to discourage or disengage these customers.

Beyond individual integration of resources, resources can also be integrated collectively. Bruce et al. (2019) studied resource integration in collective consumption contexts and highlighted six activities through which household members integrate resources in the creation, or destruction, of value (resource assembly, resource mastery, resource optimization, usage event planning, real-time usage design, and resource reflection). Whether resource integration results in co-creation or co-destruction depends on factors such as the varying agency of consumers, human error and behaviours of those involved in resource integration. It is important to note that not all forms of mis-integration result in value co-destruction. There are situations where the mis-integration of resources could result in value co-creation (Ple, 2016). Given that the resultant creation or destruction of value depends on the beneficiaries' expected use of their resources when beneficiaries have low expectations of the use of their resources, mis-integration could result in value co-creation when the provider surpasses their expectations. Finally, not all resources present within the system are critical to attaining the actor's value creation goals. Resources present within the system which are not utilised for value creation are worthless and could facilitate value destruction (Storbacka et al., 2012).

3.3.4. Firm and Consumer Value Co-destruction Practices

Value in use is created as actors integrate resources in practice, making practices a key part of value creation and value destruction. Practices are dynamic and constantly in flux (Skålén et al., 2015) and are defined as "*routinised actions, which are orchestrated by tools, knowhow, images, physical space and a subject who is carrying out the practice"* (Storbacka et al., 2012). Their occurrence is driven by the actors in the service system and their evolution within the system is situational. Practices are not the same as actions, but instead, they expand the unit of analysis to the system that fosters the action (Storbacka et al., 2012). Within a system, a series of actions constitutes a process, while practices are a combination of processes. Practices, therefore, cannot be fully understood by studying the singular actions of actors within the system, but by taking a systemic view to get a better picture of how the

service systems are integrated. Practices work together to enhance the value actors realise (Schau et al., 2009) and have a characteristic power to explain why and how value is realised (Echeverri and Salomonson, 2017).

Schau et al. (2009), in their work on identifying how brand community practices create value, argued that practices exhibit common anatomy, described as understandings (knowledge and tacit cultural templates), procedures (explicit performance rules) and engagements (emotional projects and purposes). These three components cohesively function within practices. Schau et al. (2009) identified twelve practices (Table 11), which when drawn on, help consumers realise value beyond that which the firm creates or anticipates. Schau et al. (2009)'s work did not touch on the value-destroying potential of these practices, however. Value co-destruction and value co-creation are both important dimensions of interactive value practices and the downside of these practices should be captured (Echeverri and Skalen, 2011). Such a view was also supported by Skålén et al. (2015), who argued that how well practices fit together in value co-creation does not capture what constitutes a good or a bad fit. A lack of fit in practices could cause a lack of value co-creation and the misalignment of practices could result in value co-destruction (Echeverri and Skalen, 2011).

Within the co-destruction literature, increasing attention is being paid to understanding practices and how actor interpretations could result in co-destruction. Echeverri and Skalen (2011) studied interactions between bus drivers and their customers and found that there is a possibility of value co-creation or co-destruction in every encounter. They identified five practices which were drawn upon during interactions. These five practices (Table 11) could be associated with both co-creation or co-destruction depending on the procedures and understandings of the encounter. The five practices identified shape the praxis (stream of activity) of the practitioners (human actors) involved in consumer-firm interactions. Thus, providers and customers draw on various elements of practice (procedures, engagement, understanding) to interpret the actions of other actors. This shows the subjective nature of value creation based on practice interpretation. An actor's interpretation of a practice determines the resultant value created or destroyed. This agrees with Gronroos (2011), who stated that value is always perceived in an individualistic way. Echeverri and Salomonson (2017) also identified a set of six practices which are bi-directional (Table 11). Utilising a dataset of customer narratives on value-creating and value-destroying practices in public transport, they were able to identify value sub-forming activities, which inform the formation of perceived customer value-in-use. These sub-activities could be combined in different

sequences, they could occur simultaneously and their bi-directional patterns are context-specific. This shows the complex nature of practices and the need for more focus on practices to fully understand their bi-directional nature and how they combine to co-create or co-destroy value. Other authors have identified practices with value co-creating and co-destroying elements. For instance, Carù and Cova (2015) and Skålén et al. (2015) identified two different sets of eight practices (Table 11). Carù and Cova (2015) divided their identified practices based on the locus of initiation, which could be either community-initiated, firm initiated or jointly initiated. They argued that the manageability of these practices is determined by the locus of initiation. Skålén et al. (2015) identified three aggregates of collaborative practices: interacting practices (enacted by actors to work as a collective entity), identity practices (enacted to unify brands and their global community) and organising practices (pertaining to the working methods and rules regulating how to collaborate and co-create value). They stated that where misalignment of practices occurs based on misalignment of procedures, understandings and engagements, resulting in value co-destruction, each of the three instances of misalignment could be realigned using three strategies. Misalignment of procedures could be remedied by compliance, misalignment in understandings could be remedied by interpretation and misalignment in engagement could be remedied by orientation. Within the B2B space Cabiddu et al. (2019), in a case study involving conversations with practitioners, identified practices which facilitate value co-destruction by affecting four forms of capital – cultural, economic, social and symbolic capital. These practices can affect more than one form of capital and are often enacted in different ways. Thus a value co-destroying practice of lacking knowledge and informational resources can affect cultural capital and can be enacted through underestimating the project complexity or simply lacking information.

Table 11: List of identified practices (NB: Schau et al. 2009 only focused on co-creation)

Author	Schau et al. (2009)	Echeverri and Skalen (2011)	Carù and Cova (2015)	Skålén et al. (2015)	(Echeverri and Salomonson, 2017)	(Yin et al., 2018)	(Camilleri and Neuhofer, 2017)
Author's Focus	Only Co-creation	Both Co-creation & Co-destruction					
Identified Practices	Welcoming Empathizing Governing Evangelizing Justifying Staking Milestoning Badging Documenting Grooming Customizing Commoditizing	Informing Greeting Delivering Charging Helping	Exulting Helping Informing Judging Performing Queuing Value Sharing Volunteering	Dialoging Translating Praising Branding Mirroring Managing Governing Questioning & Answering	Mood Expressing Caring Connecting Responding Substantializing Embedding	Instaling Finding Riding Parking Placing	Welcoming Expressing Feelings Evaluating Location & Accommodation Helping & Interacting Recommending Thanking

3.4. Stakeholder Analysis of Co-destruction

The literature treats co-destruction and co-creation as two separate constructs. However, there is increasing evidence that both should be treated as likely possibilities of every interaction (Plé and Cáceres, 2010). This dual treatment has led to a difference in focus in terms of publications on co-destruction and on co-creation. The bulk of co-creation experiments have been developed to emphasise the occurrence of co-creation at the expense of the possibility of co-destruction. In the following sections, we build on our understanding of where co-destruction occurs and how it occurs, delving deeper into the literature relating to co-destruction, focusing on the firm, consumers and virtual communities. The firm and consumers represent the most common units of analysis. This is because value formation was largely considered to occur primarily between the firm and the consumer (Siguaw et al., 2014), due to the focus of the SD logic on this dyad when it was introduced. Vargo and Lusch (2008b), however, argue that value creation occurs beyond this dyad, claiming that the venue of value creation is the value configurations—economic and social actors within networks interacting and exchanging across and through networks. To this end, two extra sections focusing on value destruction between firms and multiparty co-destruction of value beyond the dyad of the firm and the consumer have been included.

3.4.1. Firm Co-destruction of value (Business to Consumer)

Various factors within the firm have been identified as barriers to consumer engagement. These factors are usually embedded in the firm's strategy, organisational structure and culture (Chathoth et al., 2014). Inadequate intra-organisational factors, such as information flow (Kaartemo and Känsäkoski, 2018, Järvi et al., 2018), communication (Sthapit, 2018, Espersson and Westrup, 2020), bad behaviour (Sthapit and Björk, 2019) and technology (Malar et al., 2019), could serve as barriers to effective consumer engagement, which could hamper the firm's co-creation efforts. These factors can undermine consumer engagement by reducing the amount of information available to consumers for decision making, reducing interaction with consumers and reducing the access of consumers to transformational channels. Sthapit and Jiménez-Barreto (2018), in their study on antecedents of value co-destruction, identified improper communication between guests and hosts on Airbnb as one of the factors responsible for negative experiences. Whilst proper communication was identified as a factor which could help build trust and minimize uncertainty, consumers emphasised how the 'lack of' or improper communication leads to service failure and a feeling of being devalued as a consumer. Säwe and Thelander (2015) and Kaartemo and Känsäkoski (2018) also identified communication as an important factor in determining if value is co-created or co-destroyed during interaction with firms. Säwe and Thelander (2015) investigated value co-destruction and co-creation during an art event organised by the Swedish municipality of Helsingborg in a city renewal project. During the event, improper framing of the activities and poor communication resulted in a less than ideal experience for the participants. Activities and exhibitions were not as engaging as they were designed to be due to a lack of information about their usage and unclear framing. Kaartemo and Känsäkoski (2018) also found the risk of co-destruction was also found to increase when a healthcare organisation's information and knowledge is poorly communicated, often in situations where information is collected by people other than the professionals who eventually need the information.

Despite poor communication being identified as a factor which facilitates co-destruction, Osei-Frimpong et al. (2015)'s study on service experiences between physicians and patients in the consulting room shows that excess information and knowledge can also lead to the co-destruction of value. With the healthcare service delivery typically considered a knowledge

intensive service, doctors are typically more knowledgeable in comparison to their patients. This, however, is changing with the advent of consumerism. Patients are becoming more knowledgeable and informed due to access to information in relation to their health needs. This influences their inputs in the consulting room through information sharing, ultimately leading to practices engaged in by the patient which healthcare providers find difficult to accept. Besides communication and information flow, other factors such as the literacy of both healthcare provider and patients (Palumbo and Manna, 2018) have also been identified as a factor which could influence the outcome of interactions. Value co-creation requires the congruent integration of resources between the provider and the beneficiary and inadequate health literacy prevents the patients' contribution in health services' design and delivery, thus compelling the healthcare professionals to adopt an approach which regards the patient as a mere recipient of health services.

Carù and Cova (2015), in their study of consumption practices which lead to the co-creation of collective service experiences, identified eight practices (Table 11), utilising a case vignette approach. They organised the practices to highlight the initiator of the practice (firm, consumer or both parties) and the impact of the practice (co-creation or co-destruction). Four of the identified practices could be initiated by either the firm (volunteering and queuing) or the consumer/community (performing and judging), which could result in both co-creation and co-destruction. Out of the remaining four, three of them (value sharing, informing and exulting) could be initiated by either the firm or the consumer/community and result only in co-creation while the last one (helping) was identified as a company-driven practice resulting only in the co-creation of experiences. Carù and Cova (2015) identified two traits which define these practices. The first trait is their ambivalent nature, which refers to their ability to result in either co-creation or co-destruction. The second is their relative unmanageability, which refers to the unsuccessful efforts of the firm to control certain practices. In the creation of these collective experiences, the firm usually shapes the experience, but the experiences will not occur if the consumers are not willing to participate. The ultimate represenation of these experiences and the enactment of the associated practices therefore depend on the consumers' participation. This participation depends on the firm's ability to engage consumers.

3.4.2. Firm Co-destruction of Value (Business to Business)

Within service production, value co-destruction could occur within the firm's network during business to business interactions or business to consumer interactions and it could be initiated simultaneously by both interacting parties or by each individually. Vafeas et al. (2016) identified antecedents to diminished value between client/agency exchange while Becker et al. (2015) focused on the co-creation and co-destruction of value between client/consultant interactions. Vafeas et al. (2016) interviewed both clients and agencies to identify concepts which were then aggregated to identify five antecedents to value co-destruction. The antecedents identified (absence of trust, inadequate communication, inadequate coordination, inadequate human capital and power/dependence balance) could lead to diminished value outcomes and were categorized as client, agency or joint-situated resources. The study showed that value destruction could be initiated by either the client, the agency or jointly by the client and the agency. Becker et al. (2015), in their study on business to business interactions, also showed that both parties could either initiate value destruction individually or jointly. However, they utilised an approach-avoidance motivation concept, which indicates the urge of a person to either approach or withdraw from a desired or undesired stimulus. In their study, they identified stimuli which, when introduced by either party, could induce an 'approach' by the recipient leading to co-creation or induce 'avoidance', leading to co-destruction. They also identified stimuli (objects, events, possibilities) which, when introduced, could be interpreted either positively or negatively. The identified stimuli ranged from positive and negative verbal communication (messages and references) to positive and negative non-verbal communication, such as smiling or frowning and maintaining or not maintaining eye contact. The dynamics of interactions between consultants and clients were also found to pass through various stages of value destruction and value co-formation. Kantanen (2017) studied how value was co-created or co-destroyed during a communication improvement programme carried out at a medium-sized family firm. At a point during the interaction, value was temporarily destroyed for the consultant due to a lack of awareness of practices within the organisation. This was during a role-playing session between client participants who chose to demonstrate a negative case. This initially confused the client, who was not aware of practices within the organisation, but ultimately led to a session of co-formation since fruitful discussions emanated from the event.

Within the literature, other authors have touched on value co-creation and co-destruction in project management, where a single case megaproject was analysed and factors such as

decision-making invoked the potential for co-destruction (Smyth et al., 2018) and in e-government, where the risk of co-destructive outcomes increase with increasing boundary complexity between collaborating communities (Uppström and Lönn, 2017) Co-creation and co-destruction have also been touched on in sales, where customer orientation was found to increase value and a sales orientation was found to destroy value (Singh and Koshy, 2011, Jayashankar et al., 2019) and in startup businesses, where startups, through their relationships with other firms, co-created or co-destroyed value (Hasche and Linton, 2018).

3.4.3. Consumer Co-destruction of Value

What value is to the firm is different from what value is to the consumer (Grönroos and Voima, 2013). Understanding consumer behaviour and psychology (Worthington and Durkin, 2012) are therefore important if firms are to minimise the consumer's value-destroying interactions and maximise the consumer's value-creating potential. Just as in the case of the firms, not much work has been done to understand the customer's value-destroying potential. Consumers interact with firms at various points along the value creation chain (Roser et al., 2013) and just as value can be co-created at any point on the value creation chain, value can also be co-destroyed (before, during and after interactions (Järvi et al., 2018)). During interaction with the firm, a spectrum of consumers experiencing either value co-creation or value co-destruction can be found at any point (Stieler et al., 2014). This resonates with the nature of value, which is individualistic (Gronroos, 2011), and the service-dominant foundational premise, which states that "value is always uniquely and phenomenologically determined by the beneficiary" (Vargo and Lusch, 2004, Vargo et al., 2008). The consumer therefore plays a very important part in determining if value is co-destroyed or co-created.

Whether value will be destroyed or created depends on the consumer's behaviour (Kashif and Zarkada, 2015), which is influenced by their expectations (Plé and Cáceres, 2010, Echeverri and Skalen, 2011), available resources (Smith, 2013) and the community (Skålén et al., 2015). The consequences of customer behaviour on employee performance, satisfaction, commitment, and turnover intention were studied by Yi et al. (2011). Yi et al. identified the positive effects consumer behaviours have on employee performance, satisfaction and commitment. Their study focused only on beneficial customer behaviours but they stated that customer behaviours could take negative forms, such as negative word-of-mouth, or uncooperative and unprovoked behaviour which could negatively affect employee satisfaction. Kashif and Zarkada (2015) also studied value co-destruction between customers

and frontline employees. Kashif and Zarkada (2015), however, focused on the negative effects and identified incidents of customer abuse of frontline service employees during service encounters within the banking sector. Customer abuse of frontline service employees occurs frequently, it has the potential to affect the reputation of the firm and it has dire consequences on the firm's employees and other customers. They highlighted various motives behind customer misbehaviour and these include financial gain motives, ego motives and revenge motives. When interviewed, employees of these organisations attributed skill and time inefficiencies directly to customer misbehaviour incidents. These incidents also affected the employees' relationships at work and their commitment to remaining in the same job. Kashif and Zarkada (2015) also discussed the incidents with consumers. A few of these customers believed their behaviour was appropriate in certain scenarios. They attributed their actions to failure of the firm to live up to certain expectations.

Expectations play a critical role in determining the value experience of consumers (Woodruff, 1997a). Both the firm and the consumer have certain expectations concerning their role and the role of other actors within the service system (Bateson, 2002). Where there is congruence in the expectations about the way resources should be utilised during the interaction, value co-creation occurs (Plé and Cáceres, 2010). In situations where there are discrepancies in the expectations of the way resources should be integrated within the service system, value co-destruction occurs. Consumers, therefore, expect certain value dimensions to be met (Stieler et al., 2014) and the failure of the firm to meet these expectations results in sub-par experiences for the consumer. Within a service system, consumers are willing to devote resources to meet these value dimensions (Stieler et al., 2014). Consumers devote material, conditions, self, social and energy resources while the firm devotes its people, technology, organisation and information resources (Smith, 2013). When the experience during the interaction does not meet the expectations of the consumer, the consumer experiences a loss of resources (Smith, 2013). This resource loss could result in emotional responses (anger, disappointment, regret, worry and anxiety) or behavioural responses (switching, complaining or negative word of mouth). The resultant destruction of value affects the wellbeing of the service system. The service experience between the firm and the customer could also be modified by the presence of other actors (community). This is discussed in the following section.

3.4.4. Co-destruction in Multiparty Interactions

The above represents work done on co-destruction within a dyadic perspective and represents co-destruction in its simplest linear form of provider-consumer interactions. In practice, however, co-destruction, like co-creation, often occurs in scenarios involving multiple actors (Ekman et al., 2016, Luo et al., 2019) and the collective intention of multiple actors could have profound effects on behaviour (Finsterwalder and Kuppelwieser, 2020). As such, there is a need to understand value creation not just for individuals but also within the network the user is embedded in (Čaić et al., 2018). Work done by Stieler et al. (2014), Kim et al. (2019) and Fyrberg Yngfalk (2013) on interactions within football matches, albeit from different perspectives, sheds more light on how value co-destruction occurs in multiparty interactions. Stieler et al. focused on the atmosphere within the football field and studied how resources from various actors including spectators, journalists and footballers contribute to the atmosphere. They argue that individuals expect a certain value dimension to be met (for example, the expected atmosphere in the stadium, which could relate to any dimension of value being co-created between the firm and the customer in the presence of other actors). Once this dimension is not met, co-destruction occurs, which can be measured on an individual level. In addition, the co-destruction of one dimension may lead to the co-destruction of other dimensions and they identified various value dimensions which are features or services which contribute to the total value of actors involved (Woodruff, 1997b, Ekman et al., 2016). Finally, they conclude that co-creation or co-destruction is always a collective experience which involves multiple actors regardless of the importance of individual expectations. This collective co-creation or co-destruction experience was also reported by Kim et al. (2019) in an empirical study on sporting events. Kim et al. (2019) showed that other consumers' passion had a positive influence on the focal spectator's social, emotional and epistemic value and their dysfunctional behaviour had a negative influence on the focal customer's emotional value, contributing to value co-creation and co-destruction respectively. Fyrberg Yngfalk (2013) also studied interactions between multiple actors within the football community. By adopting a socio-culturural perspective, Fyberg Yngfalk identified the diverse interest of multiple actors to study the effects and implications they have on value creation. Fyrberg Yngfalk highlighted the fact that actor interactions could introduce resistance. However, this should not be misunderstood to be co-destruction. Fyrberg argued for the recognition and the creation of meaning as integral parts of every interaction and consumption practice. From this perspective, resistance could lead to new

meaning creation and innovation and she gave an example of how hooliganism could be converted into commerical opportunities.

Hiler et al. (2018) studied co-competition within the multiplayer online role-playing community, where multiple parties with mutually exclusive goals competed for the rights to co-create with a firm. Their findings show that when discordant groups are involved, there is a likelihood that value will be co-destroyed due to their differing abilities and creative disposition. The co-destruction of value in the presence of multiple actors was also highlighted by Crowther and Donlan (2011) in their study of value co-creation during marketing events. Their interview with attendees showed that the multiple inputs of stakeholders across the event contributed to a lack of coherence of purpose and design. This undermined the value co-creation potential of the event, which would have been attained if congruence between strategy and design had occurred.

3.4.5. Co-destruction in Virtual Communities

Understanding how value can be destroyed via virtual communities over the Internet is also important. The Internet enables new forms of consumer / producer interactions (Fuller et al., 2009) and virtual communities over the internet can facilitate service delivery (Sawhney et al., 2005). This has resulted in an increasing number of firms hosting virtual customer environments (Nambisan and Baron, 2009). Whilst these communities enable consumers to co-create freely, Bonsu and Darmody (2008) argue that they also facilitate the colonisation of collective consumer minds and the commodification of consumer creativity. Considering the growing importance of these communities and the new forms of consumer-firm interactions they facilitate, understanding how value can be destroyed within these communities is important. Within the literature, publications have touched on the potential of virtual communities to facilitate co-destruction of value through showrooming behaviour (Daunt and Harris, 2017), luxury brands (Quach and Thaichon, 2017), via social media (Dolan et al., 2016, Dolan et al., 2019), counterfeit selling (Quach and Thaichon, 2018) and negative word of mouth (Nam et al., 2018).

Dolan et al. (2016) studied the role of social media content in facilitating engagement behaviour between the firm and its consumers. They identified how content on the platforms could stimulate positively or negatively valenced engagement levels. The levels of engagement were spread across a continuum, with the highest level of positive engagement being co-creation and the highest level of negative engagement being co-destruction, which

ultimately results in a destruction of brand value. Dolan et al.'s work highlights the need to develop frameworks which could help understand co-creation and co-destruction simultaneously, as opposed to treating them separately, since both could potentially occur within every interaction. Dolan et al. (2019) also studied tourist complaining practices on social media and identified three distinct practices which could lead to either co-creation or co-destruction: solution-seeking (when consumers demand explanations following a service breakdown), support seeking (desire to seek emotional support, sympathy from others) and social engagement (showing their knowledge by warning or cautioning fellow community members). These practices only lead to co-destruction when consumers get unsuitable or incongruent responses from the firm when they are seeking solutions, when social support is not received when they seek support on social media, and when the company tries to resolve or correct warnings provided by the consumer to other consumers during social engagement.

(Zhang et al., 2018) focused on understanding the conditions under which customer engagement co-creates or co-destroys value in online channels, identifying people (customers and employees), the organisation, company competency and technology as factors which are associated with negatively valenced customer behaviour. In their study, co-destruction occurs when customers seek revenge or retaliation, frontline employees lack soft skills or speak negatively about the firm to consumers, technology fails, the organisation is deceptive or there are long delays due to incompetence. Brand engagement and its potential for value destruction on Facebook was also studied by Peeroo et al. (2017). Peeroo et al. (2017) identified two ways in which consumers engage on Facebook – consumer to business (C2B) and consumer to consumer (C2C), both with the potential to co-create or to co-destroy value. Co-destructive interactions usually take the form of negative word of mouth or complaints in C2B interactions while sharing information about other companies products or open criticism of other consumers results in co-destruction in C2C interactions. Robertson et al. (2014) investigated how online medical self-diagnosis has led to customers misdiagnosing themselves and adopting inappropriate treatments, which could sometimes be fatal. They outline a multi-pronged, multi-stakeholder perspective to minimise the occurrence of value co-destruction in online self diagnosis. This involves regulating healthcare information published online and ensuring it meets defined standards and a second approach, which ensures the compliance of consumers, health care professionals, regulators e-health providers and industry bodies/non-government organisations.

In contrast to the bulk of the literature, which focuses on the benefits of online innovation communities, Gebauer et al. (2013) focused on how value can be co-destroyed by highlighting the negative consequences and dissatisfaction found within these communities. They studied the dysfunctional behaviours found in online innovation communities and identified factors within these communities that influence these forms of behaviour. They observed an international online design contest conducted on a community platform on the internet. This contest was set up by a leading retail brand in Austria to co-design shopping bags. Following design submission, participants were invited to vote for and comment on the designs of fellow participants. The final design was selected by a jury consisting of the CEO of the company, a professional designer and the publisher of Austria's news magazine with the largest circulation. Following the announcement of the winner, negative discussions about the winning design emerged. Gebauer et al. (2013) identified dissatisfaction with the outcome, perceived unfairness due to a lack of transparency by the firm and a sense of community (the community had developed expectations about what the winning design should be) as the reasons for the negative reactions since the jury's decisions did not meet their expectations. This led to emotions such as anger, frustration, irritation , negative word of mouth and a desire for revenge. These negative opinions were also identified on other social networks. Whilst the firm was able to succesfully co-create one dimension of value (successful bag design) it ultimately resulted in the co-destruction of other value dimensions (dissatisfaction on the part of the consumers, negative comments about the brand on other social platforms etc).

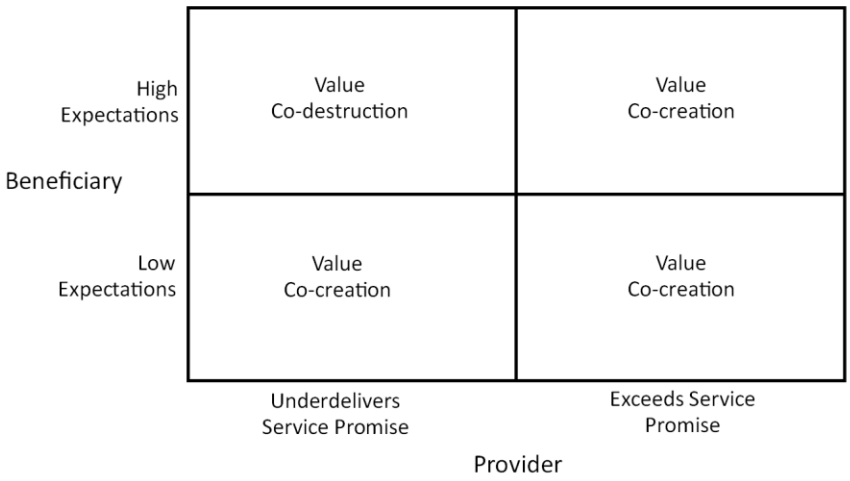
3.4.6. Conceptualising the Co-destruction of Value

The lack of attention to co-destruction has been due to the positive connotations associated with the term value and the positive focus of the foundational premises of the SD logic. This positive connotation could be linked to prejudice towards the positive outcomes of value formation and, because of this, experiments have been designed to identify the positive elements of interactions. This has led to the development of frameworks touching only on co-creation, ignoring the possibility of co-destruction. With the relatively low number of publications on co-destruction, the concept is not fully understood and requires more studies to improve its conceptualization and theoretical development. Although value destruction in the SD logic was highlighted by Plé and Cáceres (2010), who defined and labelled ‘co-destruction’, misunderstandings on what the concept is have started emerging within the

literature (Vafeas et al., 2016). To avoid a similar path to that of co-creation, there is a need to identify the boundaries of the concept and postulate a more fitting definition.

A better understanding of value, resources and how they are integrated in practice will lead to a better understanding of co-destruction. Congruent resource integration in practice results in value co-creation, while the incongruent integration of resources results in value co-destruction. The resultant creation or destruction of value depends on how the actors expect their resources to be integrated (Ple, 2016). It is therefore important to define whose value is being created (Saarijärvi et al., 2013) (the beneficiary) then we can identify whose value is being destroyed. In a simple dyadic setting between a provider/firm and a consumer/beneficiary, once the beneficiary has been identified, the expectation of the beneficiary of the use of their resources should be determined. Typically, this will range from low expectations to high expectations. During the interaction, the provider will either meet these expectations, surpass the expectations or leave the beneficiary with unmet expectations. This is represented on a matrix (Figure 6), with the beneficiary's expectations on the vertical axis and the provider's performance on the horizontal axis.

Figure 6: Conceptualising value co-destruction via consumer expectations



It follows, therefore, that as long as the provider meets or exceeds the beneficiary's expectations of how their resources should be integrated, value will be co-created. Value will only be co-destroyed in situations where the beneficiary has high expectations of how their resources should be integrated but the firm underdelivers on its service promise. Thus, irrespective of the beneficiary's expectations, value will always be co-created if the firm

exceeds its service promise. In situations where the firm underdelivers, value will not be destroyed if the beneficiary has low expectations of how their resources should be integrated.

The locus of value co-destruction depends on the logic being applied. Various logics have been proposed based on the understanding of who determines value and where value is co-created. The GD logic puts the firm at the centre of value co-creation, the SD logic puts the customer at the centre, the service logic stipulates that value is co-created during interactions between the firm and the consumer, while the CD logic argues in favour of value co-creation within the consumer's sphere (Figure 2).

Irrespective of the adopted logic, value co-destruction can occur at any point. The locus of value co-destruction can be determined by asking the question ‘whose value is being created?’ Is it the firm, the consumer or members of the community? Only after this has been determined can we identify where value is being co-destroyed. The question of whose value is being created is also important because multiple dimensions of value can be created. For Stieler et al. (2014) this is because value co-destruction, like co-creation, does not occur in isolation (i.e. firm/consumer dyad). There are multiple actors involved who integrate resources to form multiple dimensions of value in practice. The dimension of value being co-created should be identified before determining which dimension is co-destroyed. It is also important to note that value co-destruction of one dimension can lead to value co-destruction of another dimension within a network of multiple actors.

3.5. Future Research Agenda

This chapter has provided a review of the literature on the co-destruction of value. The review shows that, unlike co-creation, co-destruction has not received much attention and various areas which have received ample attention within the co-creation literature have not been studied considering the possibility of the co-destruction of value. By identifying articles within the literature and following a systematic review process, this chapter has identified the state of research on co-destruction. It has also identified key areas which need more attention within the co-destruction literature. These three areas centre around understanding the firm, the consumers and interactions between both the firm and the consumers.

3.5.1. Understanding Firm/Consumer Interactions

Consumers interact with firms at various points along the value creation chain (Roser et al., 2013). This could be in new product development or service production. At any point on this

chain, value can be co-destroyed or co-created. The nature of consumer involvement and the stage of involvement determines the vulnerability of the firm to the co-destruction of value. Future research needs to

Refrain from treating co-destruction and co-creation as separate constructs: Both co-destruction and co-creation should be seen as likely outcomes of every interaction and frameworks for both co-destruction and co-creation should be developed simultaneously. More specific research should be geared towards understanding co-destruction, where it occurs, how value can be destroyed for and by the firm and the consumer and what other factors contribute to the co-destruction of value. There is a need to develop scales to measure co-destruction in a similar manner in which scales have been developed to measure co-creation (Yi and Gong, 2013). It is also necessary to identify previous research on co-creation with empirical work biased towards identifying the positives of interactive value formation; these experiments need to be readdressed to identify the negative side of interactions.

Focus on the multidimensional nature of value during interactions: Many of the existing publications focus on isolated dyadic scenarios and study only single dimensions of value co-created or co-destroyed between firms and consumers. In reality, firm/consumer interactions are not isolated and multiple dimensions of value are being simultaneously co-created and co-destroyed. The presence of other stakeholders (community) could also negatively influence firm/consumer interactions. Future research could capture this multidimensional nature to give a true picture of value co-creating and value co-destroying activities.

Shed more light on understanding consumer participation across various stages on the value chain: As firms continue to adopt co-creation, consumers will be involved in co-creation with the firm at different stages and to different degrees (Hoyer et al., 2010). Just as the value creation potential increases, the possibility of value destruction also increases across these stages. Researchers could focus on identifying how value can be co-destroyed to highlight to what degree consumers should be involved in co-creation at different stages

Highlight the effects of co-destruction. Typically, the literature focuses on highlighting the antecedents to co-destruction (Corsaro, 2019). Less work has been done to highlight its effects on the firm and the consumer. Co-destruction could have profound effects on the firm's brand, the consumer's loyalty etc, and this could also negatively influence future interactions. Future research should focus on highlighting how co-destruction by firms affects consumers and vice versa.

3.5.2. Understanding the Consumer

To ensure effective co-creation, consumers must participate and their participation depends on their awareness, perceived role clarity, perceived ability, their expectations (Plé et al., 2010) and their motivation. This not only determines if consumers will participate or not but also how effectively they will participate. In addition, at any given point, various consumers are interacting with the firm. Whilst value can be co-created for one consumer, value can be co-destroyed for another. It is therefore important to:

Understand consumer expectations while interacting with the firm: Value will only be co-destroyed in situations where the firm does not meet the expectations of the customer (Ple, 2016). Consumers are a heterogeneous group when it comes to their expectations. Future research should focus on understanding the reason for differing expectations between customers and how the firm's homogeneous offerings can result in value destruction for both the firm and its customers. Future research should also seek to make recommendations which will help firms segment their offerings to match customers with similar expectations. Besides understanding the expectations of the firm by the consumer, future research should study the expectations of the consumers by the firm. This will help understand what contribution and resources the firm expects from its consumers and highlight if this is optimal for co-creation.

Understand consumer resources and how they are integrated in practice: Whilst publications have touched on consumer resources (Smith, 2013) and practices (Echeverri and Salomonson, 2017, Echeverri and Skalen, 2011), they do not offer a comprehensive list of all the resources consumers sacrifice while co-creating with the firm and how they are integrated in practice. A mismatch in resources could result in less than optimal value co-creation, which in essence is value co-destruction. This could result in negative behaviours, which could have serious consequences for the firm. Future research should be designed to identify the resources sacrificed by consumers during interactions with the firm. More specifically, a resource map should be created to identify the resources associated with each stage along the value creation map. This will help firms better understand consumer reactions and misbehaviours.

Understand consumer motivations: An understanding of why consumers are motivated to co-create has been touched on in the literature (Hennig-Thurau et al., 2004). However, this has not been fully studied within the co-destruction literature. Consumers are motivated by various factors. This could be intrinsic, extrinsic or a combination of the two. More work

should be done to understand why consumers are motivated to seek revenge on firms, why they decide to intentionally misuse both their resources and the firm's resources and to understand the benefits of these actions to the customer. These studies should also reflect the differing motivation patterns across different touchpoints, e.g. virtual communities, service creation, new product development etc.

3.5.3. Understanding the Firm

Just as Sheth and Uslay (2007) identified a spectrum of co-creation involving co-promotion, co-production, co-pricing, co-design, co-distribution, co-consumption, co-conception, co-outsourcing, co-disposal and co-maintenance, firms will continue to involve consumers in every aspect of value co-creation. This also increases their exposure to value destruction. Firms typically have their resources configured towards firm centred value co-creation, however. Future research should focus on

Understanding firm resources and processes: Resource configurations and processes within the firm should be studied to highlight how they can act as barriers to effective co-creation. Firm resources include people, technology, organisation and information (Chathoth et al., 2014). The misuse of any of these resources could result in the co-destruction of value for both the firm and its consumers. Researchers should work with firms to identify resource configurations which result in less than ideal value propositions and seek to make recommendations which could improve the firm's value offering. These studies should also focus on understanding how these resource configurations are integrated in practice, identifying more practices which can result in value co-destruction. Other factors such as the firm's strategy, organisational structure and culture should also be studied to understand how they could contribute to value co-destruction.

Examine co-destruction in virtual environments: This is also an important area which has not received much attention. Only a few publications have touched on this within the SD logic. The internet and related technologies facilitate co-creation and can facilitate interaction between firms and consumers. Robertson et al. (2014) showed how consumers turn to the Internet for information and how the original intention of co-created content resulted in co-destruction. Future research should be directed towards understanding specific areas with prevalent value co-destruction. These areas, such as within the healthcare industry as identified by (Robertson et al., 2014), should be studied to understand how they influence consumer decisions and the cost of these decisions to the firm needs to be identified. The

destructive efforts of consumers in these communities could also be seen positively and more research should be done to see how the value-destroying intentions of consumers could be used to create value for the firm. Virtual communities could also be used in the dissemination of negative word of mouth. This is a common occurrence across all platforms, with differing impact on the reputation of the firm beyond the originating platform and virtual communities. More research needs to be done to understand how firms can manage the effects of such damage to contain it within virtual communities and to reverse the effects of this damage beyond the virtual communities.

Study co-destruction between firms: Besides interaction with consumers, firms also interact with other firms to create value for themselves and their stakeholders. However, this often results in value co-destruction and there is a need to study how these interactions could destroy value.

Chapter 4. Research Framework and Hypothesis Development

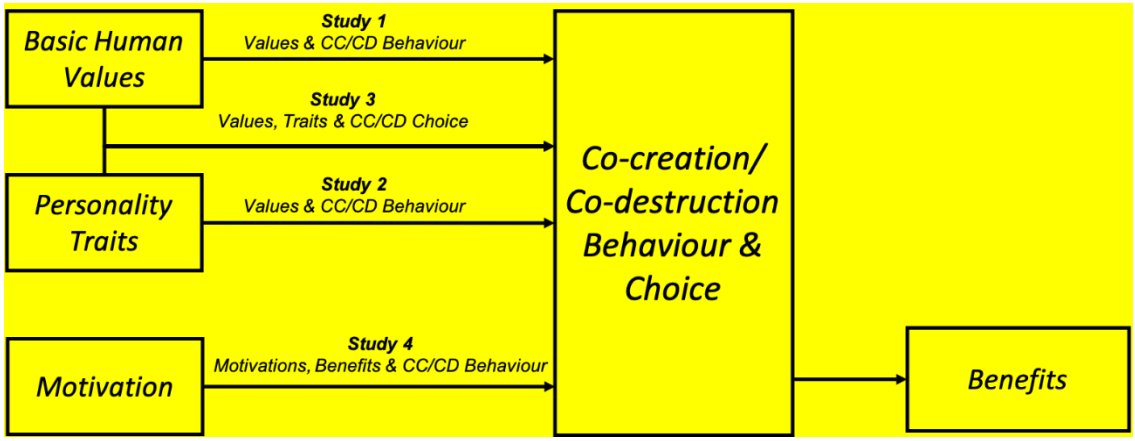
4.1. Introduction

This chapter discusses the conceptual model developed to support the key objectives of the study, which are to determine how factors such as basic human values, personality traits and motivation influence the consumer's decision to indulge in either the co-creation or co-destruction of value and how co-creation and co-destruction influence the benefits sought by consumers during interactions. The chapter starts by providing a brief overview of the conceptual model and a description of the constructs within the model. This is followed by sections outlining four empirical studies designed to test the relationships between the constructs in the model.

4.2. Overview of the Conceptual Model

The conceptualised relationship between co-creation/co-destruction behaviour and the identified constructs is represented in Figure 7. These constructs and their relationships were investigated in 4 studies.

Figure 7: Overarching conceptual model



All four studies are designed to better understand the consumer and factors innate to the consumer which could lead to value co-destruction/co-creation for firms. Whilst the focus of this research is on co-destruction, each study simultaneously addresses both co-destruction and co-creation to provide a better understanding of the dynamics of interactions between firms and consumers.

Study 1 focuses on determining the relationship between basic human values and the dimensions of consumer co-creation participation/citizenship behaviour and co-destruction

defiance and subversion behaviour. Study 2 focuses on determining the relationship between personality traits and the dimensions of consumer co-creation participation and citizenship behaviour and co-destruction defiance and subversion behaviour. Both study 1 and study 2 address the first and second objectives of this work by determining how basic human values and personality traits influence consumer decisions to indulge in the co-destruction and co-creation of value. The identified values and traits are then tested on choice in study 3, which focuses on determining how values and traits separately and jointly influence the choices made by consumers during interactions with firms. Study 3 therefore sheds more light on the first and second objectives of this study by applying the co-destruction/co-creation facilitating values and traits in situations where consumers have to make choice decisions. Study 4 addresses the third objective of this work by investigating the influence of consumer motivation on consumer co-creation/co-destruction behaviour and the various benefits sought by consumers when co-creating or co-destroying value.

4.2.1. Consumer Behaviour and Co-creation/Co-destruction

With interactions playing a central role in value co-creation (Echeverri and Salomonson, 2017), understanding consumer behaviour during interactions is important. The literature identifies at least two types of customer behaviour in service delivery: customer participation behaviour, which refers to all required (in-role) behaviours expected of consumers necessary for the successful delivery of service (Groth, 2005), and customer citizenship behaviour, which refers to voluntary (extra-role) behaviours not necessarily required for service delivery but which, when performed by consumers, generate extra value for the firm (Groth, 2005). These behaviours were encapsulated in the Yi and Gong (2013) customer co-creation scale. This scale conceptualises co-creation as a third-order dimension, with both consumer participation behaviour and consumer citizenship behaviour as second-order dimensions (section 2.4.1). Research has shown that both customer participation and citizenship behaviours influence both customer and firm outcomes, such as customer satisfaction and firm performance respectively (Ennew and Binks, 1999, Skaggs and Youndt, 2004). Both in-role participation behaviour and extra-role citizenship behaviours have been researched extensively in the co-creation literature (Yi et al., 2011, Nambisan and Baron, 2009) and the service delivery literature (Groth, 2005, Bove et al., 2009). Whilst consumers exhibit these co-creation behaviours driven by various motives (Nambisan and Baron, 2009, Füller, 2010), deviations from these behaviours or choosing not to exhibit these in-role and extra-role behaviours could result in the destruction of value. These deviations could be intentional or

unintentional (Plé and Cáceres, 2010). When a firm makes a value proposition and consumers intentionally demonstrate behaviours which are contrary to behaviours the firm expects, consumers exhibit defiance behaviours. Defiance behaviours (Table 12) result in the co-destruction of value during interactions. Beyond direct interactions, consumers could also demonstrate behaviours which could harm the firm. When customers demonstrate harmful behaviours beyond direct interactions, they are demonstrating subversion behaviours (Table 12). Subversion consists of behaviours which do not necessarily hinder performance during interactions but could have other negative consequences for the firm. Understanding the motives behind consumer indulgence in these behaviours requires an understanding of behaviour and how we come to exhibit different behaviours.

Table 12: Co-creation and co-destruction dimensions

Co-creation Participation Dimensions	Co-destruction Defiance Dimensions
Information Seeking	Ignoring Information
Information Sharing	Withholding Information
Responsible Behaviour	Irresponsible Behaviour
Personal Interaction	Impersonal Interaction
Co-creation Citizenship Dimensions	**Co-destruction Subversion Dimensions**
Feedback	Negative Feedback
Advocacy	Opposition
Helping	Neglecting
Tolerance	Intolerance

Co-creation Participation and Co-destruction Defiance Behaviour: Consumers actively participate during service encounters, due to their necessity in facilitating performance in value co-creation (Vega-Vazquez et al., 2013). Participation results in benefits not only for the consumers but also for firms. Customer co-creation participation dimensions include information seeking, information sharing, responsible behaviour and personal interaction. Information is important for the effective performance of tasks and the more information customers are exposed to, the better they are at performing their value co-creation responsibilities. Customers can, therefore, seek or share information to ensure value is co-created. Customers need an understanding of the service requirements and as such seek information to clarify these requirements, whilst satisfying other perceptive needs (Kellogg et al., 1997). Consumers also share information to ensure employees have an understanding of their problems and roles and can actively discuss solutions during interactions. Information seeking and sharing are both crucial elements of customer co-creation participation. Yet, customers can choose not to seek information or to ignore information which the firm has made readily available to enhance interactions. Customers can also decide to withhold

information from the firm by not disclosing details which could facilitate value co-creation. Ignoring and withholding information can lead to less than ideal value propositions for the firm, customer or both. This will lead to value co-destruction.

In addition to the transfer of information, there is a need for personal interaction and for customers to act responsibly during interactions. Consumers can facilitate value co-creation by choosing to be friendly, courteous and kind, improving the quality of the relationship between themselves and other actors. Similarly, consumers can choose to be unfriendly, rude and unkind, hampering the quality of relationships and facilitating value co-destruction during interactions. Each interaction is usually based on relationships and the quality of this relationship is crucial for successful value co-creation (Ennew and Binks, 1999). Interactions can also be improved if consumers choose to act responsibly. Responsible behaviour involves customers taking on the role of partial employees during interactions (Ennew and Binks, 1999). Consumers who choose to act irresponsibly when they interact with firms hinder the value co-creation process. This will ultimately lead to value co-destruction.

Co-creation Citizenship and Co-destruction Subversion Behaviour: The adoption of citizenship behaviour provides value for the firm, but is not necessary to attain performance in value co-creation (Vega-Vazquez et al., 2013). Customers have a choice as to whether to indulge in co-creation citizenship behaviour or not. Customer co-creation citizenship dimensions include feedback, advocacy, helping and tolerance. On one hand, feedback includes all forms of solicited or unsolicited information which customers provide to the service provider, helping to improve the service (Groth et al., 2005). On the other hand, advocacy includes all forms of solicited or unsolicited recommendations of the firm made by customers to other customers. Both feedback and advocacy result in extra benefits for the firm. Firms improve their service offerings when they receive positive feedback. This information will improve the experience for both the firm and the consumer in the long term. Firms also benefit from positive word of mouth when consumers advocate on their behalf. This leads to an increased bottom line and revenues for the firm. Whilst these actions provide extra value for the firm, firm revenues and reputation can be damaged by consumer opposition or negative feedback. Consumers can choose to speak negatively to other consumers about the firm, complain on public forums or provide irrelevant feedback. This form of negative feedback, negative word of mouth and complaining behaviour can discourage other potential customers (Sundaram et al., 1998), hence destroying value for the firm.

Helping is a way for customers to extend their resources, aiding other customers during value co-creation. Resource integration is crucial for value co-creation (Vargo et al., 2008). Consumers differ in the number of resources they possess and their ability to integrate resources to co-create value. In situations where a few consumers are unable to integrate their resources to co-create value, their resource integration process can be facilitated by other consumers when they provide assistance. This process of resource sharing benefits the firm and generates extra value. Consumers can also choose to be unhelpful and ignore other consumers in need of resources or unable to effectively integrate their resources. Resource mis-integration can lead to value co-destruction (Ple, 2016). Finally, firm products and services encounter faults or delays. Customers have the choice to either voice or act out their frustrations or to remain patient. The decision to exhibit patience and the amount of patience exhibited in situations where service delays occur is known as tolerance (Lengnick-Hall et al., 2000). Being tolerant facilitates co-creation while the absence of patience or being intolerant facilitates co-destruction.

4.2.2. Values

Rokeach (1973) defined values as enduring beliefs that specific modes of conduct or end-states of existence are personally or socially preferable to opposite or converse modes of conduct, whilst Schwartz (1992a) defined values as trans-situational goals, varying in importance, that serve as guiding principles in people's lives. These definitions not only capture the conflicting nature of values, but also bring to light the preferential nature of values and their opposing nature. Values influence the selection or evaluation of policies, actions, events and people and actions in pursuit of any value have psychological, practical and social consequences, which could be congruent or conflicting with the pursuit of other values. Thus, when stimulated, individuals are likely to act based on their values in value-creating or destroying encounters. Values (1) are beliefs which are tied to emotion, (2) pertain to desirable end states or behaviours and are thus motivational, (3) transcend specific situations and thus, unlike traits, motives and needs, are not limited to specific situations/actions, (4) guide the selection or evaluation of behaviour and events, (5) are ordered by importance relative to each other (Schwartz, 1992a, Schwartz, 2005).

Values are desirable intermediate goals, varying in importance, which serve as guiding principles in people's lives (Schwartz, 2007) and refer to "what people consider important," the goals they wish to pursue. Values are enduring. They are beliefs and have cognitive,

behavioural and affective components. Values are preferences and are conceptions of things personally and socially preferable. The influence of values on behaviour has been acknowledged by various authors (Carman, 1978, Schopphoven, 1991) and several authors believe this relationship is causal and that values are an integral part of attitude, which serves as a mediator between values and behaviour (Tolman 1951, Rosenburg 1956 via Pitts and Woodside (1986)). Thus, values can be said to influence attitudes, which in turn determine an individual's behaviour. Rokeach (1973), however, maintains that values link central beliefs to attitudes and as such a focus on values may be more useful in understanding behaviour when compared to attitudes.

The most important aspect of a value is the motivational goal it fulfils (Schwartz and Bilsky, 1987, Verplanken and Holland, 2002). These goals are highly abstract. As such, people who value creativity, freedom and independence fulfil the goal of self-direction. Likewise, people who value obedience, self-discipline and politeness fulfil the goal of conformity. Whilst values are all culturally shared, their order of importance relative to each other depends on the individual. The importance of each value to an individual will therefore determine their behaviour and choices in situations of conflicting values. Schwartz (1992a) defined ten broad values based on the motivational goal they express: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security (Table 13). These values were derived from three universal requirements of human existence – (1) the needs of individuals as biological organisms (2) the requisites of coordinated social interaction and (3) the survival and welfare needs of groups. These goals have important survival significance and are requirements to which all individuals and societies must be responsive. Schwartz argues that for individuals to ensure the pursuit of these goals, they must be expressed as values. The differences in the importance of each value amongst individuals are due to their combination of biological endowments, social experiences and exposure to cultural definitions of the desirable (Roccas et al., 2002).

Table 13: Higher-order value dimensions and 10 sets of basic human values (Schwartz, 2007)

Higher-Order Dimensions	Value Types	Motivational Goal
Openness to Change Values Motivate people to follow their intellectual and emotional interests	Self-Direction	independent thought and action
	Stimulation	excitement, novelty, and challenge in life
Conservation Values Motivate people to preserve the status quo and associated certainty	Conformity	restraints of actions and impulses likely to harm or upset others and violate social expectations or norms
	Tradition	acceptance of customs
	Security	harmony and stability of society
Self-Enhancement Values Motivate people to enhance their personal interests	Achievement	personal success through demonstrating competence
	Power	control or dominance over people and resources
	Hedonism	pleasure or sensuous gratification for oneself
Self-Transcendence Values Motivate people to promote the welfare of others	Universalism	tolerance and protection of all people
	Benevolence	preserving and enhancing the welfare of those with whom one is in frequent contact

NB Hedonism can be classified under either self-enhancement or openness to change

The ten values were also characterised by Schwartz (1992a) and the conflicts and congruities among all ten yielded an integrated structure of values. In this structure, values are grouped based on compatible motivations to form four higher-order values: (1) Openness to change, (2) Conservation, (3) Self-enhancement and (4) Self-transcendence. Basic values which emphasise one's own independent thought and actions are classified under "openness to change". These values support change according to Schwartz (2007) and include values such as Self-direction, Stimulation and Hedonism. Individuals who score high in this dimension are willing to try new things out and are usually in need of constant stimulation. The values that support openness to change conflict with values that support conservation and people that are open to change logically will not be conservative. Conservative values, as the name implies, consist of values that emphasise the preservation of traditional practices, self-restriction and the protection of stability. These values include Conformity, Tradition and Security. Individuals high on this dimension are resistant to change and are on the opposite dimension to individuals "open to change" as noted above. They would, therefore, exhibit behaviours typically accepted within their society or immediate environment. Certain values support the pursuit of one's own success and dominance over others. Basic values in this category are the values of power and achievement and are known as Self-Enhancement values. People that exhibit these values tend to focus more on their own self and well-being

as opposed to those of others around them. The tendency to put one's self first could, for instance, directly influence one's ability to tolerate service failures. Such a tendency could also affect the sharing of information and helping of other actors during co-creation. On the opposite side of self-enhancement are the self-transcendence values. These values emphasise the acceptance of others and concern for their welfare before one's own self. Self-transcendence consists of values such as universalism and benevolence. Individuals here typically consider others before themselves. Since people high on these attributes are found on the opposite side to those high in self-enhancement, there could be an opposite reaction in situations such as those identified above (tolerance, helping etc).

4.2.3. Traits

Personality traits are dimensions of individual differences in inclinations to show consistent patterns of feelings, thoughts and actions (McCrae and Costa, 1990). Much of our understanding of traits originated through the efforts of several authors to organise the language of personality (Cattell et al., 1970, Norman, 1963). Both personality theorists and factor analysts debated this structure until the emergence of the five-factor model.

Traits are descriptions of people in terms of relatively stable patterns of behaviour, thoughts, and emotions (McCrae and Costa, 1990) and they describe what people are like as opposed to the motives behind their intentions (Roccas et al., 2002). In their innate nature, traits are biologically based and are tied to underlying biophysiological response systems (Costa and McCrae, 2001, Costa and McCrae, 1998). Evidence of their biological links has been confirmed through their existence across species (King and Figueredo, 1997) and across every culture where they have been sought. There is also strong evidence of their heritability (Jang et al., 1998, Salonen et al., 2019). Their use in describing and predicting individual behaviour has been demonstrated by various authors (Barry and Stewart, 1997, Costa Jr et al., 1995, Marcus and Roy, 2019, Bertoni et al., 2019).

The five-factor model aggregates personality into five broad categories and provides a consensual, objective, quantifiable description of the main surface tendencies of personality (Capara et al., 1999). These five factors, (1) Extraversion (2) Agreeableness (3) Conscientiousness (4) Neuroticism and (5) Openness, describe the extent to which individuals tend to exhibit the associated traits (Table 14).

Table 14: Five-Factor model of personality (John and Srivastava, 1999, McCrae and John, 1992, Parks-Leduc et al., 2015)

Trait Dimension	The extent to which individuals tend to be …..	Versus being ….
Extraversion	Talkative, assertive, energetic	Shy, introverted, unadventurous
Agreeableness	Good-natured, cooperative, trustful	Rude, hostile, unkind
Conscientiousness	Orderly, responsible, dependable	Lazy, disorganised, careless
Neuroticism	Neurotic, nervous, insecure	Calm, stable, resilient
Openness to experience	Intellectual, imaginative, independent-minded	Closed-minded, shallow, simple

4.2.4. Motivation

To be motivated means to be moved to act (Ryan and Deci, 2000) and a person's motivation determines the person's behaviour (Hou et al., 2011). According to the Self Determination Theory, motivation can be distinguished based on the underlying goals or reasons which evoke an action. Fundamentally, based on the underlying goals or reasons which evoke actions, the SDT differentiates between different types of motivation – the most basic being between intrinsic motivation, which denotes participating in a task because it is inherently interesting, and extrinsic motivation, which denotes participating in a task in expectation of an outcome. It also acknowledges a state of lack of motivation, which is called amotivation. A combination of multiple intrinsic and extrinsic motives makes people engage in various activities (Ryan and Connell, 1989, Füller, 2010). Engaging in either co-creation or co-destruction, therefore, is as a result of either intrinsic, extrinsic motives or a combination of the two.

Intrinsic Motivation: When a person is said to be intrinsically motivated he or she indulges in an activity not in expectation of any specific outcome or reward but just for the sake of participating. Intrinsic motivation can be defined as doing something because it is enjoyable or interesting (Ryan and Deci, 2000) and people that are intrinsically motivated value the activity for its own sake (Füller, 2010). This type of motivation is believed to be one of the most basic forms of motivation found in humans and animals since, from birth, both indulge in activities out of curiosity and do not need extraneous incentives to participate. Intrinsic motivation is inherently autonomous and although it exists in all individuals, it differs between individuals (Ryan and Deci, 2000) since individuals can be intrinsically motivated for certain tasks and not motivated for others. This clearly shows its expression is affected or influenced by certain factors and a great dealof research has been done to identify under what specifiable conditions intrinsic motivation is expressed. Cognitive Evaluation Theory (CET),

a sub theory of the SDT presented by Ryan and Deci (1985), explains this and argues that events and structures that produce a feeling of competence along with a sense of autonomy enhance intrinsic motivation. Competence and autonomy are one of the three psychological needs which humans tend towards satisfying. Competence relates to the feeling of self-efficacy while autonomy relates to the feeling of choice or an internal perceived locus of causality. The third fundamental psychological need, 'relatedness', was also found to play a role in the expression of intrinsic motivation but its influence is not as strong as that of competence and autonomy (Ryan and Deci, 2000). Intrinsically motivated people usually indulge in activities for hedonic benefits and tend to prefer experientially oriented behaviours.

Extrinsic Motivation: Where there are a host of activities individuals partake in for experiential/curious reasons, there are several activities individuals indulge in primarily in view of a distinguishable outcome. These activities are distinguished from intrinsically motivated actives and are known as extrinsically motivated activities. Extrinsic motivation which is the form of motivation associated with participating in an activity in view of a specific outcome (Ryan and Deci, 2000). Extrinsically motivated people don't indulge in activities just because the activities are interesting. For extrinsically motivated people, the expected reward or specific outcome is the driving factor and is usually separate from the activity itself (Füller, 2010). This led to the general view that extrinsic activities are unanimously non-autonomous and only always induced by some control due to the expectation of the desired outcome. The SDT, however, states that extrinsically motivated activities can vary in their degree of autonomy (Ryan and Deci, 2000). There is evidence however that through a process called internalization, extrinsically motivated people could internalize their reasons for indulging in an activity and become intrinsically motivated. Internalization is the process of taking in values, attitudes or regulatory structures in a way where the external regulation of behaviour is transformed into an internal regulation eliminating the need for an external contingency (Gagné and Deci, 2005). It is a term that specifically refers to three processes known as introjection, identification and integration. Each of these three processes refers to a different level of internalization and are spread out on the autonomy-control continuum to show how motivation can range from amotivation or unwillingness to a state of active commitment (Table 15). Extrinsically motivated people indulge in activities for utilitarian benefits and tend to prefer goal-oriented behaviours.

Table 15: Intrinsic and extrinsic motivation (Ryan and Deci, 2000)

Process	Definition
Amotivation	
External Regulation (Extrinsic)	
Introjection (Extrinsic)	Actions performed with a feeling of pressure – regulation still controlling
Identification (Extrinsic)	Already identified with the importance of the behaviour and self regulates
Integration (Extrinsic)	Identified regulations have been fully adapted to one's self
Intrinsic Motivation	

4.2.5. Benefits

From the growing body of co-creation research, various reasons have been identified as to why consumers indulge in co-creation (Füller, 2010). These are usually as a result of a need to satisfy a social or psychological need since consumers only invest their time if they consider co-creation to be rewarding. These benefits sought by customers are bidimensional and customers perform these consumption behaviours for two basic reasons: (1) a consummatory affective (hedonic) gratification and (2) instrumental, utilitarian reasons concerned with expectations of consequences (Batra and Ahtola, 1991).

Hedonic Benefits: These are benefits derived from consumption or participation in activities primarily characterized by aesthetic, experiential and enjoyment-related benefits (Dhar and Wertenbroch, 2000). The hedonic dimension of an activity measures the associated experiential effect i.e., how pleasant and agreeable the associated feelings are (Voss et al., 2003). Thus consumers indulging in co-creation or co-destruction for hedonic benefits act primarily for sensory and experiential satisfaction. At its extreme, the hedonic experience is subjective and associated with higher levels of playfulness (Davis et al., 2013). It is similar to the task orientation of utilitarian benefits except it is concerned with hedonic fulfilment, such as experiencing fun, amusement, fantasy, and sensory stimulation (Babin et al., 1994). Hedonic outcomes are affectively driven (Botti and McGill, 2010) and their affect-rich nature causes their value to be established mostly on internal, subjective and discretionary standards (Babin et al., 1994).

Utilitarian Benefits: As opposed to hedonic benefits, which are sensory-related, Utilitarian Benefits are much more cognitively driven and goal-oriented. Utilitarian benefits refer to the functional, instrumental and practical benefits realised from an activity (Dhar and Wertenbroch, 2000). The utilitarian dimensions of an activity are associated with how useful or beneficial the activity is (Voss et al., 2003). Unlike hedonic benefits, which embody

experiential and fun characteristics, consumers who indulge in co-creation or co-destruction for utilitarian benefits are task-oriented and are in pursuit of an outcome. These consumers are satisfied only when the task at hand has been accomplished (Davis et al., 2013). Utilitarian benefits are cognitively driven (Botti and McGill, 2010) and are easy to justify due to their association with virtues and necessities (Dhar and Wertenbroch, 2000).

4.3. Study 1: Relationship between Basic Human Values and Co-creation/Co-destruction

4.3.1. Research Objectives and Study Design

Values are cognitive representations of desirable abstract goals (Rokeach, 1973) and were defined by Schwartz (1992a) as trans-situational goals, varying in importance, that serve as guiding principles in people's lives, and by Rokeach (1973) as enduring beliefs that specific modes of conduct or end-states of existence are personally or socially preferable to opposite or converse modes of conduct. They are motivational constructs and as such pertain to desirable end-states of behaviours (Schwartz, 1992a, Schwartz, 2005). The Schwartz circumplex model is the most dominant approach to representing human values. It defines ten broad values based on the motivational goal they express (power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security) This model also characterises all ten values based on conflicts and congruities to yield an integrated structure of values. In this structure, values are grouped based on compatible motivations to form four higher order values: (1) Openness to change, (2) Conservation, (3) Self-Enhancement and (4) Self-Transcendence.

Given values are motivational constructs, influence behaviour and can be grouped based on conflicts and congruities, certain value types are likely to facilitate value co-creation behaviour while some value types are likely to facilitate co-destruction behaviour. This sub-study focuses on identifying which value types, based on their conflicts and congruities, will facilitate value co-creation or value co-destruction.

4.3.2. Hypothesis Development and Research Framework

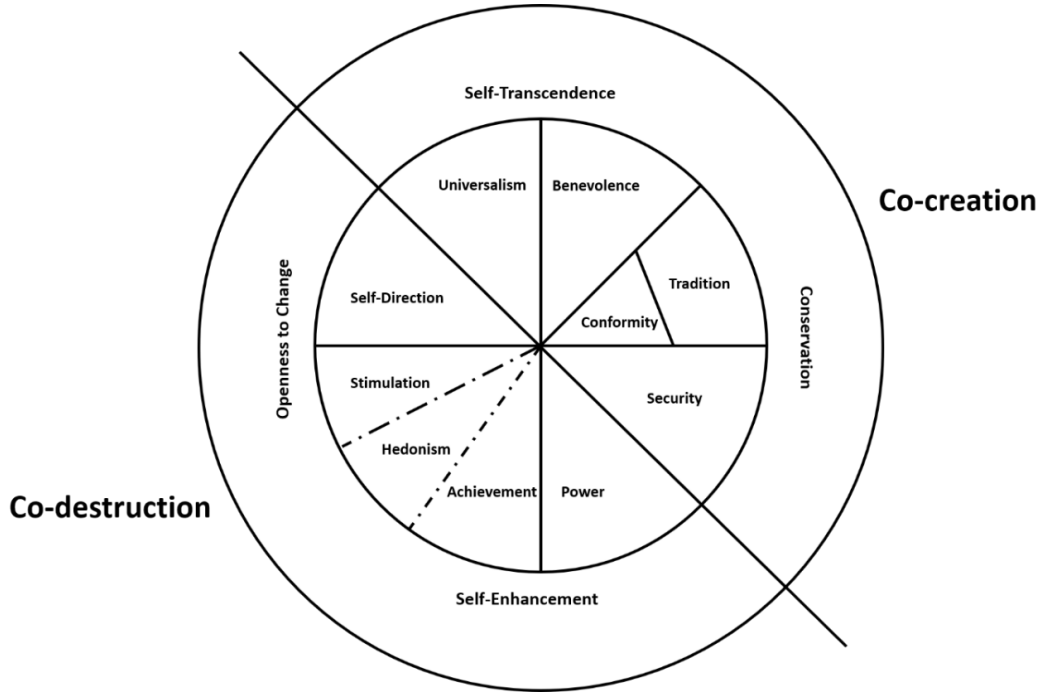
Schwartz (1992a)'s examination of conflicts between the value types suggested a simpler way to view the value structures. The conflicts between the values yielded four higher-order types, which form two basic, bipolar, conceptual dimensions. The first basic dimension pitches openness to change values against conservation values. This basic dimension arrays

values based on the extent to which they motivate people to follow their intellectual and emotional interests in unpredictable and uncertain dimensions against preserving the status quo and associated certainty in relationships with institutions, close others and traditions (Schwartz, 1992b). The second basic dimension pitches self-enhancement against self-transcendence values. This basic dimension arrays values based on the extent to which they motivate people to enhance their personal interests (even at the expense of others) against the extent to which they motivate people to transcend selfish concerns and promote the welfare of others, close and distant, and of nature (Schwartz, 1992b).

The motivational nature of these values and conflicts indicates that grouping both conservation values and self-transcendence values (values which motivate people to preserve the status quo and associated certainty and promote the welfare of others) together mirrors co-creation behaviour and is likely to facilitate the integration of resources during firm/consumer interactions. Self-transcendence values include both universalism (tolerance and protection of all people) and benevolence (preserving and enhancing the welfare of those with whom one is in frequent contact) while conservation values include security (harmony and stability of society), conformity (restraints of actions and impulses likely to harm or upset others and violate social expectations or norms) and tradition (acceptance of customs). Customers who exhibit these values are therefore more likely to co-create value considering that the motivational goals served by these values relate more to behaviours expected during co-creation.

Grouping both openness to change values and self-enhancement values (values which motivate people to follow their intellectual and emotional interests and enhance their personal interests) together mirrors co-destruction behaviour. These values are likely to facilitate mis-integration of resources during interactions between firms and consumers. Self-enhancement values include power (control or dominance over people and resources), achievement (personal success through demonstrating competence) and hedonism (pleasure or sensuous gratification for oneself), while openness to change values include stimulation (excitement, novelty, and challenge in life) and self-direction (independent thought and action). Customers who exhibit these values are therefore more likely to co-destroy value considering that the motivational goals served by these values relate more to behaviours expected during co-destruction. A divide can thus be drawn on the Schwartz (1992a) circumplex model to reflect values more likely to serve co-creation and values on opposing sides which are likely to serve co-destruction (Figure 8).

Figure 8: Relationship between values and co-creation/co-destruction behaviour



Firms have certain expectations of consumers during interactions to ensure proper co-creation of value during interactions. These expectations have been encapsulated in the customer participation (in-role) and customer citizenship (extra-role) behaviours (Yi et al., 2011, Revilla-Camacho et al., 2015, Groth, 2005, Yi and Gong, 2013). The customer participation consists of behaviour necessary for successful value co-creation, while customer citizenship consists of behaviour which is voluntary, not necessarily required for value co-creation but serves as added value to the firm (Yi and Gong, 2013). The dimensions of both customer participation and citizenship behaviours include constructs such as responsible behaviour, personal interaction, advocacy, tolerance and helping behaviours, which when performed by customers result in value co-creation. When consumers choose not to exhibit these behaviours, the resultant interaction between consumers and firms results in less than ideal integration of resources during interactions. This ultimately results in value co-destruction for either the firm, consumer or both the firm and the consumer.

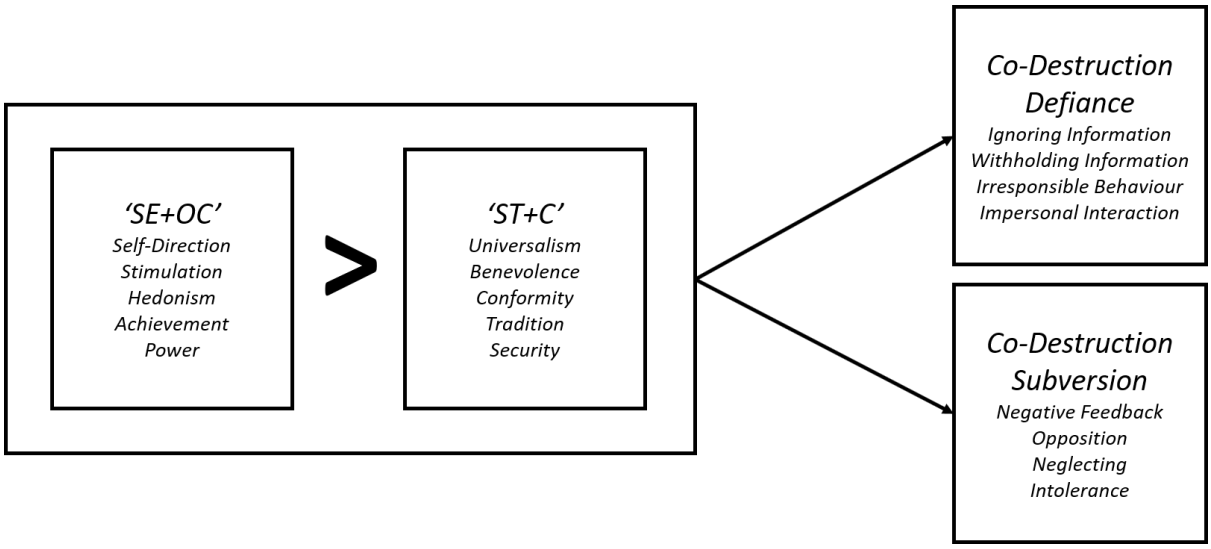
Self-enhancement and openness to change higher-order values are values which motivate people to follow their intellectual and emotional interests and enhance their personal interests (Schwartz, 1992a). Self-enhancement values include power, achievement and hedonism, while openness to change values include stimulation and self-direction. These values are likely to facilitate mis-integration of resources during interactions between firms and

consumers. Customers who exhibit these values are therefore more likely to co-destroy value considering that the motivational goals served by these values relate more to behaviours expected during co-destruction. Self-enhancement and openness to change (SE+OC), when combined, will show stronger correlation with and prediction of co-destruction defiance and subversion dimensions in comparison to self-transcendence and conservation values (ST+C) (Figure 9). We, therefore, propose that:

H1.1a: *When value is co-destroyed, self-enhancement and openness to change values (SE+OC) will show a stronger positive relationship and effect on co-destruction dimensions in comparison to self-transcendence and conservation values (ST+C).*

H1.1b: *When value is co-destroyed, self-enhancement and openness to change values (SE+OC) will show a stronger positive relationship and effect on co-destruction subversion dimensions in comparison to self-transcendence and conservation values (ST+C).*

Figure 9: H1.1 - Relationship between 'SE+OC' and 'ST+C' and co-destruction defiance and subversion dimensions



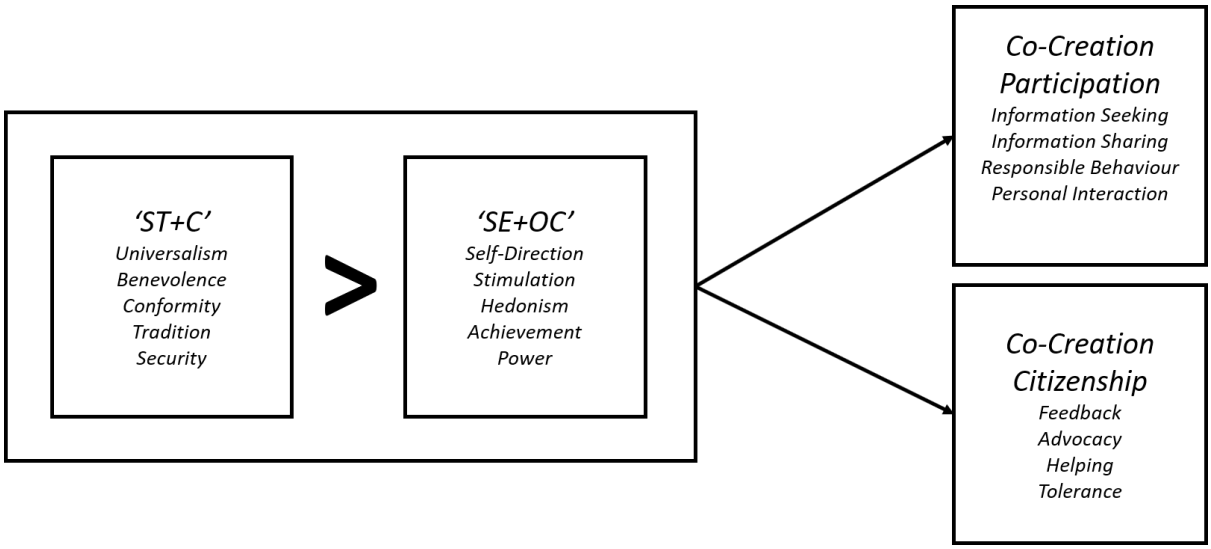
Self-transcendence and conservation higher-order values are values which motivate people to preserve the status quo and promote the welfare of others (Schwartz, 1992a). Self-transcendence values include both universalism and benevolence, while conservation values include security, conformity and tradition. These value types are likely to facilitate the integration of resources during firm/ consumer interactions. Customers who subscribe to these values are therefore more likely to co-create value, considering that the motivational goals served by these values relate more to behaviours expected during co-creation. Self-

transcendence and conservation (ST+C), when combined will show stronger prediction of co-creation participation and citizenship dimensions in comparison to self-enhancement and openness to change values (SE+O) (Figure 10). Therefore,

***H1.2a**: When value is co-created, self-transcendence and conservation values (ST+C) will show a stronger positive relationship with and effect on co-creation participation dimensions in comparison to self-enhancement and openness to change values (SE+OC).*

***H1.2b**: When value is co-created, self-transcendence and conservation values (ST+C) will show a stronger positive relationship with and effect on co-creation citizenship dimensions in comparison to self-enhancement and openness to change values (SE+OC).*

Figure 10: H1.2 - Relationship between 'ST+C' and SE+OC' and co-creation participation and citizenship dimensions



4.4. Study 2: Relationship between Personality Traits and Co-creation/Co-destruction

4.4.1. Research Objectives and Study Design

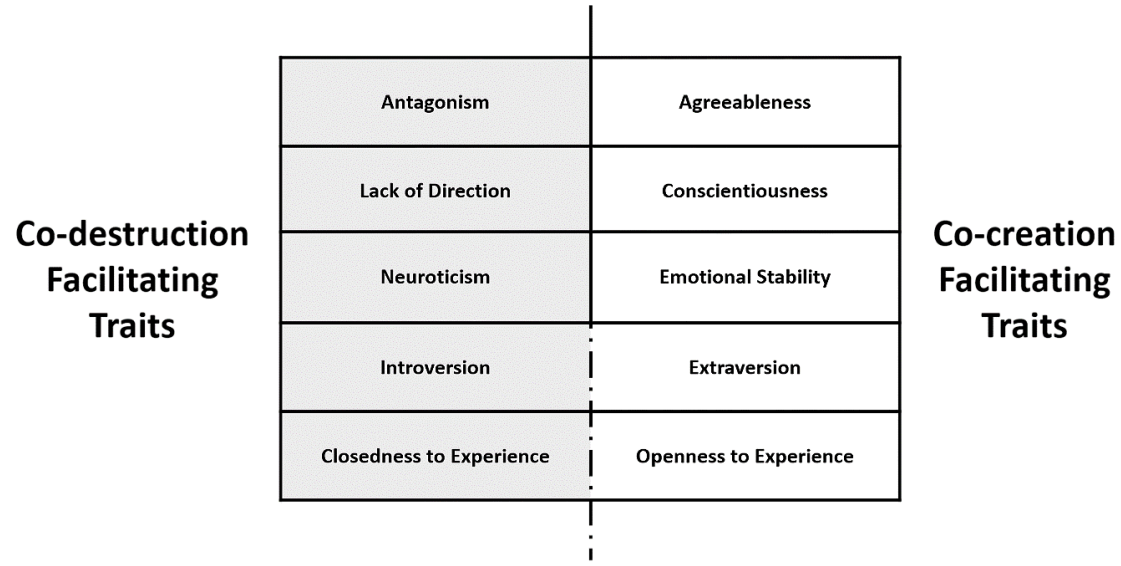
Personality traits are dimensions of individual differences in inclinations to show consistent patterns of feelings, thoughts and actions (McCrae and Costa, 1990). Traits describe what people are like, as opposed to the motives behind their intentions (Roccas et al., 2002). The five-factor model aggregates personality into five broad categories and provides an objective, consensual and quantifiable description of the main surface tendencies of personality (Capara et al., 1999) (Table 14). These five factors describe the extent to which individuals tend to

exhibit the associated traits. These factors can be simultaneously expressed. The differing levels of expressions of these different traits contribute to individual differences in behaviour. Thus, during interactions with firms, consumers will co-destroy or co-create value based on their level of expression of different traits. This sub-study focuses on identifying which personality traits will facilitate value co-creation or value co-destruction.

4.4.2. Hypotheses Development and Research Framework

The Big Five traits represent the extent to which consumers express a polar dimension of each of the 5 traits at the expense of its opposite dimension. For instance, agreeableness traits depict the extent to which a consumer is agreeable versus being antagonistic. The level of expression of agreeable traits by any consumer falls between the polar extremes of being totally agreeable or being totally antagonistic. Extraversion measures the extent to which an individual is extraverted versus being introverted. Trait polar dimensions reflect extremes of behaviour, which could facilitate co-destruction or facilitate co-creation. Conscientiousness traits (orderly, responsible, dependable, etc) mirror behaviours which could facilitate co-creation participation and citizenship behaviours (Table 14), while its polar opposite dimension's lack of direction traits (lazy, disorganised, careless) reflects behaviours which could facilitate co-destruction defiance and subversion behaviours. This can also be said for other trait dimensions when considered in the context of the co-destruction and co-creation of value. Both openness and extraversion traits, however, aggregate a mixture of traits which could facilitate both co-destruction and co-creation. Based on the likelihood of facilitating co-destruction and co-creation, trait dimensions can be grouped as shown in Figure 11.

Figure 11: Relationship between traits and co-creation/co-destruction behaviour



Dashed lines depict dimensions which aggregate a mixture of traits which could facilitate both co-destruction and co-creation.

Extraversion implies an energetic approach to the social and material world (John and Srivastava, 1999). People who are extraverted show a tendency to be sociable, active and constantly stimulated versus being introverted: shy, reserved, and unadventurous. Extraversion's characteristic social skills result in numerous friendships, hence, extraverts are seen as building better relationships during interactions. People who score low on extraversion tend to exhibit humility, they are more passive and less energetic. Extraversion's compatibility with sociability, challenge and novelty coupled with its active nature makes extraversion a strong predictor of co-creation. Extraverts also tend to be talkative and extraversion traits and their associated energy also facilitate the pursuit of pleasurable experiences and expressiveness. This could facilitate co-destruction. In addition, extraversion has been shown to have a negative correlation with being logical (Dollinger et al., 1996). It can therefore be postulated:

H2.1a: *Extraversion will be positively correlated with co-destruction behaviour*

H2.1b: *Extraversion will be positively correlated with co-creation behaviour*

Agreeableness contrasts a prosocial and communal orientation toward others with antagonism (John and Srivastava, 1999). People who score high on agreeableness tend to be gentle, cooperative, collaborative and moderate. People who are antagonistic may be rude, selfish,

hostile, uncooperative, and unkind. Agreeable people have an orientation towards helping others and cooperating with them. The communal orientation fostered by agreeableness makes agreeableness a weak predictor of co-destruction behaviour. Agreeable individuals are more likely to be gentle, collaborative and cooperative and it can be postulated that individuals high on this value are more likely to co-create value during interactions with firms.

H2.2a: *Agreeableness will be negatively correlated with co-destruction behaviour*

H2.2b: *Agreeableness will be positively correlated with co-creation behaviour*

People who exhibit openness to experience traits are more intellectual, imaginative, open-minded and sensitive (Roccas et al., 2002). On the opposite side of openness to experience is closedness to experience. Closedness to experience describes individuals who are closed-minded, shallow, and simple. On one hand, the extent to which a consumer is open could determine the individual's willingness to share experiences, which could increase their propensity to co-create value. On the other hand, the need for novelty, variety and change could reduce the consumers' tendencies to conform to expected behaviours, hence leading to co-destruction. Openness negatively correlates with values such as self-control, obedience and being responsible (Dollinger et al., 1996). This suggests a rebellious side to people high on openness traits. It can therefore be postulated that individuals high on openness to experience traits are as likely to co-destroy value as they are to co-create value:

H2.3a: *Openness will be positively correlated with co-destruction behaviour*

H2.3b: *Openness will be positively correlated with co-creation behaviour*

Conscientiousness describes socially prescribed impulse control, which facilitates task and goal-directed behaviour (John and Srivastava, 1999). Two distinct aspects of conscientiousness have been identified – a proactive aspect, which appeals to achievement, and an inhibitive aspect expressed through such behaviours as delayed gratification and thinking before acting. Conscientious people are often described as efficient, organised, planful, reliable and thorough (McCrae and John, 1992). On the opposite side of conscientiousness are lack of direction traits. Consumers high on lack of direction traits tend to be disorganised, lazy, irresponsible and sloppy. Individuals high on conscientiousness can be careful, thorough and responsible (Roccas et al., 2002). A preference towards value co-creation can therefore be expected for individuals high on conscientiousness. We can expect

to see positive relationships and effect between conscientiousness and co-creation behaviour. Conscientious consumers behave ethically and are not self-indulgent; thus

H2.4a: *Conscientiousness will be negatively correlated with co-destruction behaviour*

H2.4b: *Conscientiousness will be positively correlated with co-creation behaviour*

People with high neuroticism traits tend to be anxious, nervous, sad and tense while people low on neuroticism traits tend to be even-tempered and demonstrate emotional stability (Roccas et al., 2002, John and Srivastava, 1999). Neurotic consumers are irrational, pessimistic and touchy, while emotionally stable consumers are calm, self-confident, stable, resilient, and well-adjusted. Based on the temperamental and unstable nature of neuroticism traits, individuals with a high level of neuroticism traits are most likely to co-destroy value.

H2.5a: *Neuroticism will be positively correlated with co-destruction behaviour*

H2.5b: *Neuroticism will be negatively correlated with co-creation behaviour*

4.5. Study 3: The Influence of Basic Human Values and Personality Traits on Consumer Choices

4.5.1. Research Objectives and Study Design

During interactions, the decision to behave in a certain manner could come naturally to a consumer. Whilst this appears to be the next logical step for the consumer, the consumer's choice actions could be detrimental to the firm. It is important to understand what drives consumers to make these decisions to identify how value can be destroyed during interactions. Values and traits have been identified as important determinants of behaviour (Myszkowski and Storme, 2012, Parks-Leduc et al., 2015) and both tell us different things about personality functioning (Caprara et al., 2006). Both traits and values have been used to explain consumer behaviour in political choices (Caprara et al., 2006), relationship satisfaction (Leikas et al., 2018) and friendships on social media platforms (Lönnqvist and Itkonen, 2016). No study has been conducted to show how both values and traits influence our choices in service interactions where value can either be co-created or co-destroyed. Despite the increasing focus on co-creation and the emerging focus on co-destruction as a result of the change in paradigm from the GD logic to the SD logic, little has been done to determine what influences choices during interactions. This work focuses on the influence of

both basic human values and personality traits on consumer co-creation and co-destruction behaviour. More specifically, the overarching research objective is to study how basic human values and personality traits separately and jointly influence the choices made by consumers during interactions with firms.

Understanding how both values and traits influence consumer choices will deepen the firm's understanding of consumers by extending the narrative beyond the current awareness within the literature of 'consumer motives and benefits to co-create' to understanding the 'driving factors behind their choices and decisions which lead to either co-creation or co-destruction of value'. This will also shed more light on consumer-resource integration beyond the knowledge of 'which resources are available to consumers' to an understanding of 'why consumers choose to integrate their resources in certain ways while interacting with firms'. It will also help firms understand the likely outcomes of interactions with consumers and guide the development of touch-points to maximise co-creation and minimise co-destruction.

Hypothesis Development and Research Framework

Relationship between Values and Traits: The stability of both values and traits across context and time (Roccas et al., 2002) makes them important constructs in understanding human behaviour. Values are formed through socialization as individuals interact with the environment and learn beliefs about preferred ways of acting or being, while traits are 'endogenous latent tendencies', protected from the direct effects of the environment and are innate in nature (Olver and Mooradian, 2003, Dobewall et al., 2014). People believe their values are desirable, hence the motivation to act in accordance to the motivational goal it fulfils. They could, however, perceive certain traits they exhibit as positive or negative. Values and traits influence one another reciprocally. Values influence traits because individuals are motivated to act in line with their values, while people who exhibit certain traits are likely to increase the degree to which they value the goals the trait supports (Caprara et al., 2006). Individuals who value achievement but do not exude competent traits may choose to act competently to achieve certain goals while a person who demonstrates the competence trait may increase the degree to which they value competence or achievement as a motivational goal. Both values and traits are stable but unlike values, traits do not influence the selection or evaluation of policies, actions, events and people and are therefore not motivational in nature. Values are conflicting in nature and the pursuit of one value comes at

the expense of another; traits can be simultaneously expressed. For example, an individual can express both the personality traits of conscientiousness and agreeableness but can only pursue certain values at the expense of others, an example of which is the value type power versus universalism.

Basic Human Values: When consumers interact with firms, firms have expectations of how resources should be integrated to ensure value co-creation. Values, however, serve as motivational goals and irrespective of how the firm expects resources to be integrated to ensure value co-creation, consumers will act in accordance with their values. Thus, in situations where consumers have a choice between an alternative which favours the firm or one which favours themselves, the consumer's values will act as guiding principles. Choice will therefore correlate with the values they are designed to elicit (Feather, 1995). This is in line with (Roccas et al., 2002), who stated 'values are used to justify choices or actions as legitimate or worthy'.

Beyond Schwartz (1992a)'s classification of basic values into four higher-order values (self-transcendence, self-enhancement, conservation and openness to change) (Table 13), Schwartz et al. (2012) further classified self-transcendence and conservation higher-order values as values with a social focus and self-enhancement and openness to change higher-order values as values with a personal focus. On one hand, consumers who demonstrate values with a social focus tend to show concern for others or established institutions (Schwartz et al., 2012). Customers who exhibit these values are therefore more likely to show concern for the firm and co-create the firm's expected value dimensions during interactions. On the other hand, consumers who demonstrate values with a personal focus tend to show concern for themselves (Schwartz et al., 2012). Customers who exhibit these values are therefore less likely to co-create the firm's expected value dimensions during interactions. These customers are more likely to co-destroy value during interactions.

When consumers interact with firms, firms have expectations of how resources should be integrated for value co-creation. Values serve as motivational goals, though, and irrespective of how the firm expects resources to be integrated, consumers will act in accordance with their values. Therefore, in situations where consumers have a choice between an alternative which favours the firm or one which favours themselves, the consumer's values will act as guiding principles. Consumer choice will therefore correlate with the values they are

designed to elicit (Feather, 1995). This is in line with (Roccas et al., 2002), who stated: "*values are used to justify choices or actions as legitimate or worthy*". Hence,

H3.1a: *Self-direction, stimulation, hedonism, achievement and power values will correlate positively with choices which result in the co-destruction of value for the firm*

H3.1b: *Universalism, benevolence, conformity, tradition and security values will correlate positively with choices which result in co-creation of value for the firm.*

Personality Traits: Personality traits and values have been theorised to predict different types of behaviour (Roccas et al., 2002). There are, however, positive correlations between certain values and traits. Extraversion implies an energetic approach to the social and material world (John and Srivastava, 1999). Extraverts tend to be sociable and active and constantly need stimulation. Extraversion's compatibility with pursuing excitement, challenge and novelty and its active nature make it compatible with stimulation, achievement and hedonism values (Luk and Bond, 1993, Roccas et al., 2002, Olver and Mooradian, 2003, Parks-Leduc et al., 2015). In contrast, people who score low on extraversion tend to exhibit humility, are more passive and less energetic. This is typically associated with traditional values (Roccas et al., 2002). Extraversion is therefore expected to show positive relationships with stimulation, achievement and hedonism values and a negative relationship with tradition values.

H3.2a: *Extraversion traits will positively correlate with stimulation, achievement and hedonism values.*

H3.2b: *Extraversion traits will negatively correlate with tradition values.*

Agreeableness contrasts a prosocial and communal orientation toward others with antagonism (John and Srivastava, 1999). People who score high on agreeableness tend to be gentle, cooperative, collaborative and moderate. They have an orientation towards helping others and cooperating with them. Values such as benevolence, conformity and tradition serve the motivational goals of enhancing the wellbeing, supporting/ fulfilling the expectations and adhering to the customs and hierarchies of people within one's immediate social environment respectively. These values are therefore highly likely to correlate with agreeableness. The communal orientation fostered by agreeableness conflicts with values such as power, which supports the motivational goal of control and dominance over others (Luk and Bond, 1993, Roccas et al., 2002, Olver and Mooradian, 2003, Parks-Leduc et al., 2015). Agreeableness is

therefore expected to show positive relationships with conformity, tradition and benevolence values, and a negative relationship with power values.

H3.3a: *Agreeableness traits will positively correlate with conformity, tradition and benevolence values.*

H3.3b: *Agreeableness traits will negatively correlate with power values.*

Openness to experience describes the breadth, depth, complexity and originality of an individual's mental and experimental life (John and Srivastava, 1999). Openness expresses traits which are similar to the higher-order values of openness to change, which include stimulation and self-direction. Thus, people who score high on openness to change will be more likely to value stimulation and self-direction, whilst they will contrast with values such as conformity, tradition and security (conservation values). Openness to experience also demonstrates links to universalism, which supports the motivational goal for tolerance and openness to ideas different to those one is familiar with (Luk and Bond, 1993, Roccas et al., 2002, Olver and Mooradian, 2003, Parks-Leduc et al., 2015). Given the above:

H3.4a: *Openness to experience traits will positively correlate with self-direction, universalism and stimulation values.*

H3.4b: *Openness to experience traits will negatively correlate with conformity, tradition and security values.*

Conscientiousness describes socially prescribed impulse control that facilitates task and goal-directed behaviour (John and Srivastava, 1999). Two distinct aspects of conscientiousness have been identified – a proactive aspect, which appeals to achievement, and an inhibitive aspect expressed through such behaviours as delayed gratification and thinking before acting. Conscientious people are often described as efficient, organised, planful, reliable and thorough (McCrae and John, 1992). The proactive aspect of this trait relates to the motivation for success according to the societal standards and therefore should support achievement values, while the inhibitive aspect of this trait relates to impulse control, which relates to conformity values (Luk and Bond, 1993, Roccas et al., 2002, Olver and Mooradian, 2003, Parks-Leduc et al., 2015). Therefore:

H3.5: *Conscientious traits will positively correlate with achievement and conformity values.*

People high on neuroticism tend to be anxious, nervous, sad and tense, while people low on this trait tend to be even-tempered and demonstrate emotional stability (Roccas et al., 2002, John and Srivastava, 1999). This trait is highly affective and shows no links to any of the value types, which are all cognitive in nature (Luk and Bond, 1993, Roccas et al., 2002, Olver and Mooradian, 2003, Parks-Leduc et al., 2015).

Values, Traits and Co-creation/Co-destruction Choice: Values and traits represent broad categories of individual differences crucial to understanding people, who are, by definition, assumed to be cross situationally and cross temporally consistent (Dollinger et al., 1996). Each of them explains different aspects of an individual's personality. Values refer to what people consider important, while traits describe what people are like (Roccas et al., 2002). Values vary in their importance as guiding principles while traits vary in the frequency and intensity of their occurrence. Traits, on one hand, are used to describe patterns and consistencies in behaviour but are unable to provide explanations for the origin of those patterns and consistencies (McDonald and Letzring, 2016). Values, on the other hand, are used to justify choices (Roccas et al., 2002), making them important determinants of actions performed by individuals. Consumer actions may reflect/be explained by either their traits or values but when asked to justify these choices, consumers will refer to their values. Therefore, during interactions between firms and consumers, whilst consumer co-creation/co-destruction actions can be explained by either their values or traits, these actions are legitimate to a consumer if the actions resonate with the consumer's values. Values will therefore have a greater effect on consumer co-creation/co-destruction choice in comparison to traits.

H3.6: *Basic human values are better predictors of consumer co-creation/co-destruction choice in comparison to personality traits.*

4.6. Study 4: Consumer Motivations and Benefits of Value Co-destruction

4.6.1. Research Objectives and Study Design

Whether value will be co-created or co-destroyed depends on how consumers are motivated to integrate their resources. Motivation is vital to an explanation of how and to what extent actors leverage their knowledge and skills (Locke and Latham, 2004). Motivation explains why people behave in certain ways (Deci and Ryan, 2008) and it compels human behaviour

(Roberts et al., 2014). Studying motivation and its associated constructs will lead to a better understanding of consumer reasons for indulging in co-creation or co-destruction (Becker et al., 2015).

Whilst the literature has shown an interest in the motivations of consumers in co-creating value to highlight factors which could be triggered to facilitate consumer support in value co-creation ventures, the literature has not invested the same effort in examining the intentional or accidental factors that could motivate consumers to co-destroy value. Co-destructive actions towards the firm could have significant negative consequences for the firm, its employees or other consumers. As such the origins of co-destructive actions and the benefits consumers seek should be understood if firms are to prevent its occurrence during interactions.

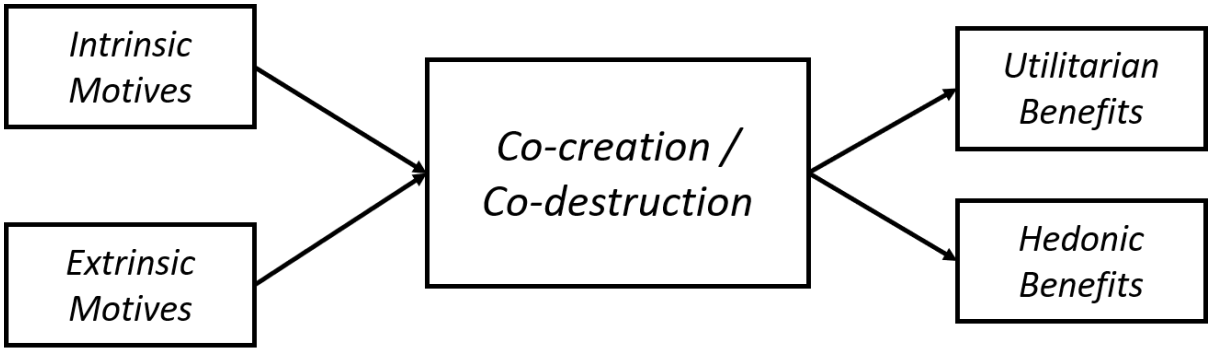
This study focuses on understanding the motives behind consumer decisions to destroy value during interactions with firms. Specifically, it aims to identify the intrinsic and extrinsic motivations behind consumer decisions to destroy value during interactions and identify what type of benefits consumers get from engaging in value co-destruction. The focus of this study is on co-destruction. Still the study also utilises co-creation to put co-destruction into perspective and it identifies the intrinsic and extrinsic motives which lead to co-creation and consumer benefits for indulging in co-creation. Co-creation has been extensively studied within the literature and its motivational antecedents have been identified. Comparing co-creation to co-destruction gives better insights into how similar motivations can be used in both positive and negative contexts whilst interacting with firms.

4.6.2. Hypothesis Development and Research Framework

Previous studies have typically used various terms to describe consumer behaviour contrary to the expectations of the firm: jaycustomer behaviour (Harris and Reynolds, 2004, Nang et al., 2017), dysfunctional behaviour (Daunt and Harris, 2012a, Yi and Gong, 2008), consumer misbehaviour (Daunt and Harris, 2014), consumer badness behaviour (Yi and Gong, 2006) and deviant behaviour (Yagil and Luria, 2014). Various antecedents and motives have also been identified which explain why consumers behave in a manner contrary to firm expectations (Yi and Gong, 2006, Harris and Reynolds, 2004, Daunt and Harris, 2012b, Lennon et al., 2014). A combination of multiple intrinsic and extrinsic motives makes people engage in various activities (Ryan and Connell, 1989, Füller, 2010). Engaging in co-destruction is therefore a result of either intrinsic, extrinsic motives or a combination of the

two. In identifying intrinsic and extrinsic motives leading to co-destruction, the literature was reviewed to identify intrinsic/terminal motives and extrinsic/ instrumental motives associated with consumer misbehaviour. The developed model is shown in Figure 12

Figure 12: Proposed model



Amongst the various motives listed within the literature, financial, revenge and egoistic motives were identified as dominant motivators of consumer misbehaviours (Daunt and Harris, 2012b). Both financial and revenge motives were selected as extrinsic/ instrumental motives, while hedonic motives were used to represent intrinsic/ terminal motives. Egoistic motives were used to represent motives with a locus which could be internal/ intrinsic or external/ extrinsic. To put co-destruction into perspective, financial, egoistic and hedonic motives were also tested with co-creation, while revenge motives were replaced with altruistic motives. Revenge is an action taken with the goal of injury or offence, ultimately reducing the welfare of the victim. Altruistic motives, albeit intrinsic, denote a motive with the goal of increasing another's welfare and could serve as a replacement motive based on its positive inclination.

Financial Motives: Customers can intentionally destroy value for firms with a view to getting some sort of financial compensation. Such behaviour has been studied repeatedly within the literature and has been found to be one of the dominant motives for negative behaviours towards firms. Harris and Reynolds (2004), in their exploration of jay customer behaviour, highlighted eight errant behaviours which consumers indulge in. Listed among them are behaviours of consumers who write compensation letters with little or no justification to deliberately and fraudulently try to get financial gain. This often occurs in the form of post-service complaints (Jacoby and Jaccard, 1981) and could originate from both satisfied and

unsatisfied customers. Further to this, Reynolds and Harris (2005) also identified six major motives for illegitimate customer complaints, two of which result in financial loss for the firm. These types of consumers were labelled freeloaders, which relates to fraudulent customer complaints motivated solely by monetary gain, and fraudulent returners, who return used goods for reimbursement at a later date. A review of the literature by Daunt and Harris (2012b) and Krasnovsky and Lane (1998) also highlights financial motives as one of the most prevalent motives leading to customer dysfunctional behaviour. When consumers seek to create financial value for themselves by exploiting organisations, this will result in the loss of financial value for the firm. Consumer misuse of firm value propositions could therefore result in the destruction of value for the firm. Therefore,

H4.1a: *Financial motives are positively related to co-destruction behaviour.*

Whilst consumers can co-destroy value for financial motives, they could also co-create value for financial motives with the expectation of receiving either delayed or immediate financial gratification. (Füller, 2006, Fernandes and Remelhe, 2015). Consumers could take advantage of firm value propositions which are devised to generate financial rewards by inviting other consumers through positive world of mouth or consumers could contribute to innovation by sharing positive feedback in return for rewards (Füller, 2006). In these situations the firm value dimension of a larger consumer base/ positive feedback is met whilst simultaneously generating potential earnings for consumers. The prospect of earning financial rewards could therefore result in value being created for the firm. Therefore,

H4.1b: *Financial motives are positively related co-creation behaviour.*

Revenge Motives: Revenge refers to a customer's desire to attain vengeance over a firm or firm's employees (Daunt and Harris, 2012b). It is an action taken in return for an injury or offence (Funches et al., 2009) and is often done to get even with an organisation, as an act of payback or simply to punish the object of their grievance. This act of getting even has increased significantly with the Internet (Economist, 2006). Revenge is not impulsive, but rather often the outcome of cognitive processing (Beugré, 2005) and follows a three-stage process, where the consumer firstly accesses the magnitude of injustice or unfairness, secondly the customer assigns blame to the firm or its employee, and finally the customer reacts to this perceived injustice or unfairness, selects a form of aggression and executes the

selected aggression (Beugré, 2005). Revenge is therefore a coping instrument for restoring justice and fairness (Grégoire et al., 2010). It has been identified as an important motive for customer misbehaviour (Daunt and Harris, 2012b) both in virtual communities and in face-to-face interactions. Obeidat et al. (2018) studied consumer revenge on social media, identifying four types of consumers and triggering perceived injustice while Wen-Hai et al. (2018) explored the different effects of customers' anger and regret on their desire for revenge and negative word of mouth. Both highlight the importance of revenge as a motive for destroying value for the firm. When consumers invest their resources during interactions with firms and their expectations are not met, consumers often seek to recoup the lost resources by investing more resources (Smith, 2013) where these lost resources cannot be recouped, consumers could seek vengeance (Daunt and Harris, 2012b) and initiate negative actions towards firms. These negative acts could be in the form of negative word of mouth, physical abuse or switching to other firms. This could result in enormous losses for firms, ultimately leading to the destruction of value. Considering the destructive nature of revenge, it should show positive relationships with co-destruction.

H4.2: *Revenge is positively related to co-destruction behaviour.*

Altruistic Motives: Altruistic motives are structured by the ultimate goal of increasing another's welfare (Krebs, 1991). Within the literature, altruistic motives have been identified as consumer motives to indulge in co-creation. Oreg and Nov (2008) studied the motivations for contributing to open source initiatives and identified altruism as an important motivator. Altruism was also identified by Hennig-Thurau et al. (2004) in their study on electronic word of mouth via consumer opinion platforms. Füller (2006)'s study on the reasons consumers engage in new product development also identified altruistic motives in situations where consumers work with firms to improve their service offerings. Consumers who are concerned about others are likely to help during interactions, share information and exhibit responsible behaviour. Altruistic behaviours will facilitate co-creation both during face-to-face interactions and also indirectly, creating value for the firm. Altruism reflects a concern for others and will therefore be an important motivator for consumers to co-create with firms.

H4.3: *Altruistic motives are positively related to co-creation behaviour.*

Egoistic Motives: Egoistic motives have both an external and internal locus of causality (Daunt and Harris, 2012b). Egoism could emanate from an internal need to feel good about one's self or an external need to feel respect from others. Egoistic motives are structured by the ultimate goal of increasing one's own welfare (Krebs, 1991). Harris and Reynolds (2004) identified a group of consumers, labelled ego hunters, who seek to orally abuse staff to enhance self-worth. This was also identified by Withiam (1998), who identified customers who use foul language, utter inappropriate sexual comments and belittle front line employees as a means of feeding their ego. Whilst the above are aimed at boosting the individual's ego, satisfying their intrinsic desires, there are also situations where value is destroyed to boost egos amongst others to earn their respect. Ego driven destructive activities such as property abuse was stated to be driven by individuals' need to enhance their egos within a peer setting (Daunt and Harris, 2012b), therefore satisfying their extrinsic desires. Consumers can co-destroy value to boost their self-worth. The need to gratify one's ego has also been linked to value co-creation (Füller, 2006) and customers participate in various activities for fame, reputation and the offered self-esteem or self-enhancement (Hennig-Thurau et al., 2004, Engel et al., 1990). Consumers are therefore likely to co-destroy or co-create value for egoistic reasons.

***H4.4a**: Egoistic motives are positively related to co-destruction behaviour.*

***H4.4b**: Egoistic motives are positively related to co-creation behaviour.*

Hedonic Motives: Hedonic motives have been identified as important factors for consumer decisions to co-create value with the firm (Roberts et al., 2014, Nambisan and Baron, 2009). Hedonic consumption refers to the facets of consumer behaviour which relate to the multisensory, fantasy and emotive aspects of a consumer's experience with the firm's products or services (Hirschman and Holbrook, 1982). Hedonic consumption involves emotional arousal and the seeking of emotional arousal is posited to be a major motivation for participation in various activities (Holbrook, 1980, Levy, 1999). Given the above, customers can often co-create value for fun. The literature, however, remains scarce on the hedonic motives to co-destroy value with firms. Encompassed within Harris and Reynolds (2004)'s work is the identification of fun-seeking hedonic property abusers, who cause damage to firms in states of fun or competition, and sex abusers, who orally express their sexual desires to frontline employees. These customers destroy value for the firm through

activities which are pleasurable to themselves without aiming to achieve any goals. Seeking to gratify oneself at the expense of the firm could result in the destruction of firm expected value dimensions. Such consumers could demonstrate irresponsible behaviours, exhibit impersonal information or give negative feedback. This could result in the destruction of value for the firm. Based on the above, it is expected that:

H4.5a: *Hedonic motives are positively related to co-destruction behaviour.*

H4.5b: *Hedonic motives are positively related to co-creation behaviour.*

Hedonic and Utilitarian Benefits: Both hedonic and utilitarian outcomes have different motivational drivers. On one hand, hedonic outcomes/experiences are intrinsically motivated, inherently rewarding and are therefore sought as an end in their own right. Hedonic outcomes are therefore terminal goals. Utilitarian outcomes/experiences, on the other hand, are extrinsically motivated because they are not rewarding in themselves, but are instrumental in achieving other higher-level goals (Dhar and Wertenbroch, 2000, Holbrook and Hirschman, 1982, Botti and McGill, 2010). While co-creating or co-destroying value, therefore, consumers seeking hedonic benefits are satisfied with the experience and do not seek further outcomes, while consumers seeking utilitarian benefits are seeking a separable consequence. Both hedonic and utilitarian value derived from co-creation of service recovery have been found to contribute to perceived equity and affect towards recovery, ultimately increasing consumer repurchase intentions (Park and Ha, 2016). Also, Candi et al. (2016) found that the contribution of customer co-development to market success is positively moderated by utilitarian radicalness (the degree to which an innovation is novel in terms of technology and functionality) and negatively moderated by hedonic radicalness (the degree to which an innovation is novel in terms of sensorial, emotional, or symbolic aspects). Therefore, since consumers perform consumption activities for both hedonic and utilitarian reasons:

H4.6a: *Co-destruction is positively correlated to utilitarian benefits.*

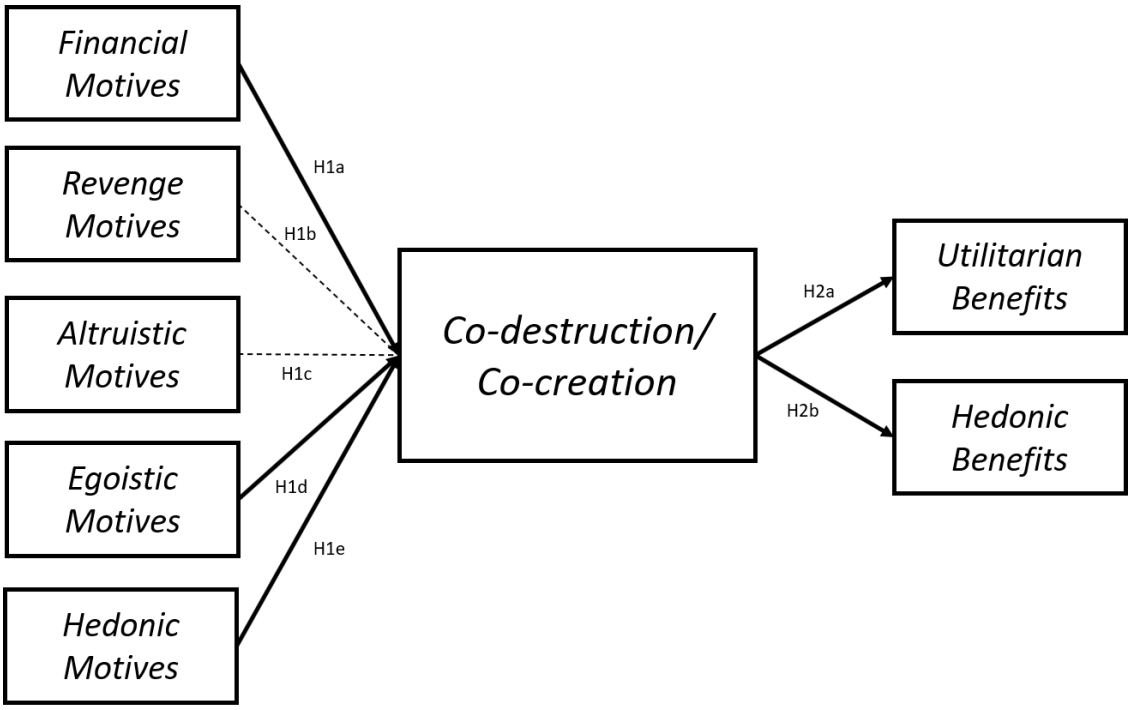
H4.6a: *Cocreation is positively correlated to utilitarian benefits.*

H4.7a: *Co-destruction is positively correlated to hedonic benefits.*

H4.7b: *Co-creation is positively correlated to hedonic benefits.*

The hypothesised relationships between the constructs and co-destruction and co-creation are shown in Figure 13 below.

Figure 13: Hypothesised relationships between constructs and co-destruction & co-creation



Chapter 5. Research Strategy and Research Methods

5.1. Introduction

This chapter is divided into three parts and serves the purpose of discussing the research philosophy, outlining the methodology and methods applied in this study. The first part of this chapter discusses the research philosophy and its associated epistemology, ontology, methodology and etiology. The second part presents the research strategy, and outlines the general orientation to the conduct of research, the research design, which provides a framework for the collection and analysis of data, and the research method, which is the technique for collecting data. The research method section outlines the sampling, data collection, survey design and administration procedures. This chapter concludes in the third section, which lists the measurement items for each of the three sub-studies outlined in the previous chapter.

5.2. Research Philosophy

Research philosophy involves an examination of knowledge, how it comes into being and how it is transmitted through language (Patton, 1990). Every researcher holds, to differing extents, different assumptions about knowledge and thus embrace different philosophies (Sousa, 2010). These philosophical assumptions inform the conduct and writing of the study (Creswell, 2007). Making these assumptions unambiguous and keeping them at a minimum is therefore important in any research publication (Sousa, 2010, Creswell, 2007). All research ultimately builds on an ontology (how the world is), epistemology (how the world can be known), methodology (what methods to use in enquiring about the world), and etiology (what are the world's underlying causes) (Sousa, 2010). In designing research, defining the research philosophy and underlying assumptions is primary to defining the research methods (Guba and Lincoln, 1994, Kanellis and Papadopoulos, 2009). Thus the question of research philosophy is paramount and can even help to clarify research designs, determine which designs will work and also identify other designs that have not been utilised before by the researcher (Easterby-Smith et al., 2012). The purpose of this chapter therefore is to make explicit the assumptions made during the conduct of this study.

Social scholars and researchers adopt one of three research philosophies (Fleetwood, 2005): positivism, postmodernism or critical realism. Positivists view the social world as a closed system, where cause and effect relations can be easily observed or experienced. Postmodernists assume the social world is fully socially constructed by humankind, while to

critical realists the social world is an open system existing independent of any knowledge we may develop (Sousa, 2010). This research is grounded in the positivist philosophy and therefore assumes the world is a closed system. The next section discusses the positivist philosophy in contrast to critical realism (which assumes the world is an open system) to determine the appropriate philosophy for the proceeding study.

5.2.1. Positivism vs Critical Realism

The term positivism denotes the view that has dominated discussions in both the physical and social sciences for centuries (Guba and Lincoln, 1994). It adheres to the view that only factual knowledge which can be acquired through the senses is reliable (Payne and Payne, 2004). Positivism depends on quantifiable observations which can be analysed statistically and is based on the empiricist view that all knowledge stems from human experience. To a positivist, the social world is a closed system, where the cause of an event and its effects can be observed (Sousa, 2010). In contrast to positivism, critical realism is a view of the world that is less focused on the empirical (Payne and Payne, 2004). Critical realism sticks to a view that although the world can be experienced through our senses, there are less observable forces behind the phenomenon we sense (Payne and Payne, 2004). These unobservable underlying forces are not quantifiable, neither can they be subject to statistical analysis. Critical realism is based on the realist view, which believes that all knowledge exists irrespective of the human understanding of it (Sousa, 2010). This research focuses on understanding value, how it can be created and destroyed during interactions. From a positivist perspective, the concept of value cannot be experienced through the human senses, neither can it be subject to empirical analysis. Value is perceived in an individualistic way (Gronroos, 2011) and could mean different things to different people. An item can be assumed to be valuable but its inherent ‘value’ cannot be seen, touched or heard. To the critical realist, on the other hand, the concept of ‘value’, although it cannot be experienced by our senses, nonetheless has real effects which influence people’s decisions and actions. With critical realism, therefore, every observed phenomenon can be explained due to various underlying, unobservable and unquantifiable forces. This research does not seek to understand ‘value’ in itself, however, but to understand key events which lead to the perception of creating value (co-creation) or the perception of the destruction of value (co-destruction) and will involve determining the relationships between observable events.

Both positivism and critical realism acknowledge the existence of a mind-independent world (Sousa, 2010), meaning the world is objectively given and the truth about the world can be known without interference from the subjective influence of our minds. This dictates maintaining as little possible interaction with research respondents and being as objective as possible. Both are therefore applicable to this research due to the data collection method, which involves the use of questionnaires and surveys. Both share a phenomenological basis (Payne and Payne, 2004) which adheres to the ability to generate knowledge through systematic observation and both are opposed to alternative thinking which adheres to the mental process which determines observation. Positivism and critical realism recognise that knowledge can be gained through empirical means. Whilst this is recognised as the sole way of acquiring knowledge in the positivist view, the critical realist acknowledges the empirical but is less fixated on it. This makes critical realism a less suitable philosophy for this research, which is entirely empirical in nature.

5.2.2. Ontology

Ontology relates to the nature of the substance of the world or 'how the world is'. It is the overriding metatheoretical dimension and strongly influences epistemology, methodology and etiology (Sousa, 2010). On one hand, the positivist view takes an empirical viewpoint and recognises there is a world out there consisting of perceptible, measurable and quantifiable phenomena which are waiting to be sensed, discovered and explained by humans. To a positivist, the world exists regardless of human knowledge. The world predates human beings and ontologically speaking, all that exists can be known by humans via observation or experiments (Sousa, 2010). The existence of this apprehendable reality is driven by immutable natural laws and mechanisms (Guba and Lincoln, 1994). On the other hand, the critical realist views the world as composed of both observable and unobservable phenomena (Payne and Payne, 2004) and as made up of entities, events and relations which do not necessarily have to be observable. To a critical realist, the world exists independent of the mind (Bhaskar, 2013) and the world is thought to be stratified and divided into 3 levels – the real, the actual and the empirical. Entities could be material or immaterial but always have real effects. This explains the concept of value co-creation or co-destruction perfectly. Nothing is physically being created but we can see the effects because people act based on their perception of value. The ability of an entity such as 'value' to have physical effects is captured in its essence and causal powers (Edwards et al., 2014), the former being what makes it what it is and the later the effects of its interactions with other entities. 'Co-creation'

therefore is an effect of the interaction of an unobservable entity ‘value’ and observable entities ‘the firm and consumers’. These kinds of interactions are not captured in the positivists' ontological view.

5.2.3. Epistemology

Epistemology relates to how humans can acquire or develop knowledge of the world or how the world can be known (Sousa, 2010). It is the ‘knowledge of being’ and contrasts with ontology, which is the ‘nature of being’. For the positivist, the world can only be understood by observing and experimenting, with the ultimate goal of predicting the occurrence of an event. The mind is born blank and is experienced through the five senses by observation or experimentation (Sousa, 2010). Positivists assume that both the investigator and the investigated objects are independent entities and the investigator can study the object without interfering with it and vice versa (Guba and Lincoln, 1994). For the critical realist, this is not limited to observing and experimenting. A substantial amount of knowledge can also be obtained by practical intervention in the world and human interaction and communication. Moreover, the aim of research by a critical realist is to present the underlying effect, which we can observe as the phenomenon. Critical realism seems to pay more attention to the underlying reason why an event occurred and puts more emphasis on description and explanation (Sousa, 2010). This is drawn from its ontological viewpoint, which divides the world into the real, actual and empirical. The empirical domain is where observations are made and experienced by observers. However, events occur in the actual domain and may not be observed at all or may be understood quite differently by observers (Easton, 2010). This study focuses on identifying consumer antecedents to participating in value co-creation or co-destruction. The relationships between these antecedents and co-creation/ co-destruction will be empirically tested. Once the relationships are confirmed, this will be accepted as the truth from a positivist perspective. This, however, does not satisfy a critical realist. Realists want to dig in deeper and move from the realm of the empirical to the realm of the real to identify the underlying causality. This is outside the scope of this study, however.

5.2.4. Methodology

Methodology relates to the research techniques and methods utilised in studying the world, or simply put ‘what methods to use in the world’s inquiry’ (Sousa, 2010). Critical realists accept that less than observable forces lie behind the phenomena (Payne and Payne, 2004) and therefore seek to explain these underlying causes. Critical realists mostly utilise qualitative

research techniques, with the occasional use of quantitative methods as determined by the object of study. Positivism has a fixed method of developing scientific explanations and this is solely quantitative (Payne and Payne, 2004). This is clearly because of its origins in the natural sciences (Dudovskiy, 2016). Positivist methodology involves stating hypotheses in a positional form and subjecting them to empirical tests. (Guba and Lincoln, 1994). Positivists employ a deductive nomological approach (Sousa, 2010), which works well with this research since it attempts to deduce by testing already identified relationships between cocreation and co-destruction and their antecedents. Whatever observations are made will either confirm or challenge these relationships.

5.2.5. Etiology

This relates to the causes underlying the world and, in positivist research, the underlying cause of any observed event is assumed to be another event (Sousa, 2010). This study will be assuming/hypothesising that an event such as co-creation is observed and occurs because another event which can be tested for occurs. This is not the case with critical realism. Critical realists explain events not necessarily by looking for other events but by trying to identify the underlying structure or power of the event being studied (Easton, 2010, Sousa, 2010). In addition, positivist research assumes a closed system where external influences over the system are constant.

5.3. Research Strategy

The research strategy is the general orientation to the conduct of research (Bell et al., 2018). The researcher brings to the choice of research design assumptions about knowledge claims. In addition, operating at a more applied level are strategies of inquiry which provide the specific direction for procedures in research design (Creswell, 2003). Before committing to a research strategy, defining the research problem and research questions are important (Bell et al., 2018, Mackenzie and Knipe, 2006). Strategies of inquiry frequently used in the social sciences include quantitative, qualitative and mixed methods (Table 16) (Creswell, 2003, Mackenzie and Knipe, 2006).

Table 16: Strategies of inquiry (Bell et al., 2018, Creswell, 2003)

	Quantitative	Qualitative	Mixed Methods
Strategies of inquiry	Experimental designs Non-experimental designs, such as surveys	Narratives Phenomenologies Ethnographies Grounded Theory Case Studies	Sequential Concurrent Transformative
Principal orientation	Deductive testing	Inductive; generation of theory	
Epistemological orientation	Natural science model in particular positivism	Interpretivism	
Ontological orientation	Objectivism	Constructivism	
Research Method	Predetermined. Instrument based questions. Performance data, attitude data, observational data, and census data. Statistical analysis	Emerging methods. Open-ended questions. Interview data, observation data, document data, and audiovisual data. Text and image analysis.	Both predetermined and emerging methods. Both open- and closed-ended questions. Multiple forms of data, drawing on all possibilities. Statistical and text analysis.

Both quantitative and qualitative strategies have different epistemological and ontological orientations. The quantitative strategy of inquiry has been deemed the better fit for the conduct of this study. Quantitative strategies entail a deductive approach to the relationship between theory and research, focuses on testing theories and incorporates the practices and norms of natural scientific research and positivism (Bell et al., 2018). Qualitative strategies emphasize the inductive approach to the relationship between theory and research, focuses on generating theories, rejects the norms and practices of the scientific approach and puts emphasis on the way individuals interpret their social world (Bell et al., 2018).

This research seeks to determine the nature and strength of relationships between various variables, focuses on testing theories and thus entails a deductive approach. This research also assumes an objectivist ontological orientation, which considers the 'investigator' (researcher) and 'investigated' to be separate, and a positivist epistemological orientation. A quantitative strategy of inquiry has therefore been deemed sufficient.

5.4. Research Design

Following the decision on the research strategy, researchers have to make two other key decisions, one about research design, which will be discussed in this section, the other about the research method, which will be discussed in the next section (Bell et al., 2018). Research design provides a framework for the collection and analysis of data. It ensures that the

evidence obtained allows us to answer the research questions as unambiguously as possible (De Vaus and de Vaus, 2001). Different types of research design are shown in Table 17.

Table 17: Different types of research design (Bell et al., 2018).

Research Design	Definition
Experimental design	Involves conducting field experiments, rarely employed in business and management due to the requisite level of control when dealing with organisational behaviour.
Cross-sectional design	Entails the collection of data on more than one case at a single point in time. Collected data is then examined to detect patterns of association
Longitudinal design	Typically used to map change. Draws on phenomena at vertical and horizontal levels of analysis over time
Case study design	Detailed and intensive analysis of a single case. Used when focusing on a bounded situation or system and entails an intensive examination of the setting.
Comparative design	Entails a study using more or less identical methods of two or more contrasting cases. Typically used for comparison.

The choice of research design depends on whether the research question is descriptive or explanatory, answering the questions 'what is going on' or 'why is it going on' respectively (De Vaus and de Vaus, 2001). This research seeks to understand why people co-create or co-destroy value during interactions with firms and is therefore explanatory in nature. Attempts to provide answers to the 'why' question are theories, and research could either be theory building and thus inductive in nature, or theory testing, which is deductive in nature (De Vaus and de Vaus, 2001). The present research seeks to answer the 'why' question by testing existing theories. Explanatory research also seeks to explore the causes or consequences of a phenomenon. In the case of this research, both the causes of consumer decisions to participate in co-creation/co-destruction and the consequences of co-creation / co-destruction are being explored. This research therefore seeks to detect patterns of associations between variables and cross-sectional design was deemed the best fit.

Cross-sectional studies are conducted at one-time point or over a short period (Levin, 2006). Researchers interested in cross-sectional design are interested in variation and seek to estimate the prevalence of an outcome of interest within a given population (Levin, 2006). With cross-sectional designs, it is only possible to examine relationships between variables. The relationships identified cannot be deemed causal but causal inferences can be drawn (Bell et al., 2018, Levin, 2006). Data collection should therefore focus on collecting data on more than one single case at a single point and be examined to detect patterns of association.

5.5. Research Method

This, simply stated, is a technique for collecting data (Bell et al., 2018). Although research designs are frequently associated with particular research methods (Bell et al., 2018, De Vaus and de Vaus, 2001), data for any form of design can be collected using any method (De Vaus and de Vaus, 2001). A range of data collection methods are frequently utilised in social research (surveys, interviews (structured or semi-structured), document analysis, tests, experiments, focus groups, unobtrusive methods, observations etc) (De Vaus and de Vaus, 2001, Mackenzie and Knipe, 2006). Based on the positivist research philosophy, a quantitative research strategy and cross-sectional research design, the use of surveys via a web-based questionnaire was selected. Callegaro et al. (2015) and Evans and Mathur (2005) identified the following advantages of web based surveys.

1. They have a global reach and allow for fast and convenient collection of data. Although this depends on internet penetration, with internet penetration greater in industrialised countries and lower in developing ones, their applicability will depend on the population under study and the sample size. Online surveys can be administered in a time-efficient manner, minimizing the period it takes to get a survey into the field and for data collection. Respondents can also choose to respond at a time they feel is convenient.
2. Data collected from online surveys can also be easily formatted for analysis. Depending on the chosen web survey application, responses can be easily tabulated and analysed. This eliminates the need for inputting data, hence saving time and eliminating errors whilst inputting data.
3. Web-surveys also allow for flexibility and question diversity. They can therefore be conducted in various formats: embedded in emails, via links to surveys, and can be easily tailored based on the respondents. Web-surveys also allow for different question types, which, given the nature of this research, is important as it entails measuring on Likert scales etc.

Web-based surveys also have their disadvantages and are beset with low response rates, their impersonal nature, the skewed attributes of the internet and often unclear answering instructions.

5.5.1. Measurements

This section deals with the design of the survey questionnaire. All item scales except the scenarios (study 3) used in the study have already been used in key marketing research papers. The scenarios were developed in line with Feather (1995) to test for the co-creation/co-destruction choice. Some of the scales were slightly adapted to suit the purpose of this study. A pilot study was conducted with 10 respondents and their feedback was analysed. No major changes were made to the questions following the pilot study. The survey was administered online via Qualtrics and responses were collated.

Co-destruction and Co-creation: To measure co-destruction, participants were asked to think of a time when they had a negative experience with a firm's product, service or employee and felt justified in taking negative actions towards the firm. For co-creation, they were asked to think of a time when they had a positive experience with a firm's product, service or employee and felt justified in taking positive actions towards the firm. The respondents were then asked questions with regards to these instances. Co-creation and co-destruction were measured with items adapted from the Yi and Gong (2013) co-creation scale (Table 18 & 19). This scale conceptualises co-creation as a third-order dimension with both consumer participation citizenship behaviours as second-order dimensions. Co-creation items were adapted to co-destruction by reflecting the intentional destruction of value under its subdimension. Co-destruction and co-creation are not necessarily opposites (Stieler et al., 2014) and value does not have to be co-created before it can be co-destroyed (Stieler et al., 2014). The series of events that lead to the destruction of value could either tarnish the already existing positive perception of value or it could prevent the creation of any positive perception of value. In addition, value creation for one actor could mean value destruction to another (Plé and Cáceres, 2010), reflecting the specificity of co-destruction to the beneficiary, in line with the SD logic. Taking this into consideration and a definition of co-destruction as 'A value undermining interaction for a service system' (Section 3.3.1), the co-destruction items were therefore developed to measure consumer intentional negative behaviours to firms to capture actions which deliberately destroy value for the firm. For example, items such as 'I have asked others for information on what this service offers' and 'I said positive things about this firm and the employee to others' on the Yi and Gong (2013) co-creation scale were adapted to 'I intentionally withheld information from others on what this service offers' and 'I intentionally said negative things about this firm and the employee to others' on the co-destruction scale, respectively. Dimensions of co-creation participation (information sharing,

information seeking, responsible behaviour and personal interaction) were labelled respectively (ignoring information, withholding information, irresponsible behaviour and impersonal interaction). These dimensions were called co-destruction defiance to reflect consumers' decisions to participate in value destruction during direct interaction with firms. Similarly, dimensions of co-creation citizenship (feedback, advocacy, helping and tolerance) were labelled (negative feedback, opposition, neglecting and intolerance) respectively. These dimensions were termed co-destruction subversion to reflect consumers' decisions to participate in value destruction beyond direct interaction with firms. Participants evaluated the items based on how likely they were to perform such actions following a negative (in the case of co-destruction) or positive (in the case of co-creation) encounter with a firm. Participants rated their degree of agreement with the issues on a 7-point Likert scale, with responses ranging from “extremely unlikely” to “extremely likely.” Co-destruction and co-creation dimension scores were calculated by taking the average of items measuring each dimension. For example, the information-seeking dimension was measured using 3 items on the Yi and Gong (2013) scale. The dimension score for information seeking was computed by taking the average of these items. This was done for all the co-creation citizenship and participation dimensions and the co-destruction subversion and defiance dimensions. Co-destruction and co-creation scores were computed by taking the average of all 8 co-destruction and co-creation dimensions respectively.

Table 18: Co-creation measurement scale (Yi and Gong, 2013)

Please indicate your agreement or disagreement with each of the items listed below as a representation of your behaviour during or after the positive encounter with this firm.

Co-creation Participation	**(Yi and Gong, 2013)**
Information Seeking	I have asked others for information on what this service offers. I have searched for information on where this service is located. I have paid attention to how others behave to use this service well.
Information Sharing	I clearly explained what I wanted the employee to do. I gave the employee proper information. I provided necessary information so that the employee could perform his or her duties. I answered all the employee's service-related questions.
Responsible Behaviour	I performed all the tasks that were required. I adequately completed all the expected behaviours. I fulfilled my responsibilities to the business. I followed the employee's directives or orders.
Personal Interaction	I was friendly to the employee. I was kind to the employee. I was polite to the employee. I was courteous to the employee. I didn't act rudely to the employee.
Co-creation – Citizenship	
Feedback	If I have a useful idea on how to improve service, I let the employee know. When I receive good service from the employee, I comment about it. When I experience a problem, I let the employee know about it.
Advocacy	I said positive things about this firm and the employee to others. I recommended this firm and the employee to others. I encouraged my friends and relatives to use this firm.
Helping	I assist other customers if they need my help. I help other customers if they seem to have problems. I teach other customers to use the service correctly. I give advice to other customers.
Tolerance	If service is not delivered as expected, I would be willing to put up with it. If the employee makes a mistake during service delivery, I would be willing to be patient. If I have to wait longer than I normally expected to receive the service, I would be willing to adapt.

Table 19: Co-destruction measurement scale (Yi and Gong, 2013)

Please indicate your agreement or disagreement with each of the items listed below as a representation of your behaviour during or after the negative encounter with this firm.

Co-destruction Defiance	**Adapted from (Yi and Gong, 2013)**
Ignoring Information	I intentionally withheld information from others on what this service offers. I intentionally have not searched for information on where this service is located. I intentionally ignored paying attention to how others behave in order to use this service well.
Withholding Information	I intentionally did not clearly explain what I wanted the employee to do. I intentionally withheld important information from the employee. I intentionally provided unnecessary or did not provide all the information necessary and the employee could not perform his or her duties. I did not answer all the employee's service-related questions.
Irresponsible Behaviour	I intentionally performed only a few or none of the tasks that were required. I inadequately completed all the expected behaviours intentionally. I Intentionally did not fulfil my responsibilities to the business. Intentionally, I did not follow the employee's directives or orders.
Impersonal Interaction	I was not friendly to the employee intentionally. I was unkind to the employee intentionally. I was impolite to the employee intentionally. I was discourteous to the employee intentionally. I intentionally acted rudely to the employee.
Co-destruction Subversion	
Negative Feedback	If I have a useful idea on how to improve service, I intentionally don't let the employee know. Even when I receive good service from the employee, I intentionally complain about it. When I experience a problem, I intentionally don't let the employee know.
Opposition	I intentionally said negative things about this firm and the employee to others. I intentionally dissuade others from using this firm and the employee. I intentionally discourage my friends and relatives from using this firm.
Neglecting	I intentionally snub/hinder other customers if they need my help. I intentionally don't help other customers if they seem to have problems. I intentionally teach other customers to use the service incorrectly. I intentionally give incorrect advice to other customers.
Intolerance	If service is not delivered as expected, I would not be willing to put up with it. If the employee makes a mistake during service delivery, I would not be willing to be patient. If I have to wait longer than I normally expected to receive the service, I would not be willing to adapt.

Value Dimensions : Basic human values were measured using the Short Schwartz's Value Survey (SSVS) (Lindeman and Verkasalo, 2005) (Table 20). SSVS was developed as an alternative to the 57-item Schwartz's Value Survey (SVS) (Schwartz, 1992a). In the SVS, respondents were asked to rate the importance they would give to the 57 value items as life-guiding principles on a 9-point scale which ranges from -1, (opposed to my principles) to 7 (of supreme importance). Scores of each of the 10 value scales were calculated by averaging the scores on items belonging to each value. Unlike the SVS, which requires rating 57 value

items, the SSVS requires individuals to rate the importance of the 10 values directly on a similar 9 point scale.

Table 20: Short Schwartz's Value Survey (SSVS) (Lindeman and Verkasalo, 2005)

Values (Lindeman and Verkasalo, 2005)	
Values are guiding principles in our lives and they influence the selection or evaluation of policies, actions and events. Rate the importance as a life-guiding principle of the following values. Ranging from 0 (opposed to my principles), 1(not important), 4 (important), to 8 (of supreme importance).	Power (social power, authority, wealth)
	Achievement (success, capability, ambition, influence on people and events)
	Hedonism (gratification of desires, enjoyment in life, self-indulgence)
	Stimulation (daring, a varied and challenging life, an exciting life)
	SelfDirection (creativity, freedom, curiosity, independence, choosing one's own goals)
	Universalism (broadmindedness, beauty of nature and arts, social justice, a world at peace, equality, wisdom, unity with nature, environmental protection)
	Benevolence (helpfulness, honesty, forgiveness, loyalty, responsibility)
	Tradition (respect for tradition, humbleness, accepting one's portion in life, devotion, modesty)
	Conformity (obedience, honoring parents and elders, self-discipline, politeness)
	Security (national security, family security, social order, cleanliness, reciprocation of favours).

Scores for the 4 higher-order value dimensions were calculated by averaging the scores of their respective value types. Self-enhancement was calculated by averaging the scores for achievement, power and hedonism, while self-transcendence was calculated by averaging the scores for universalism and benevolence. Similarly, for openness to change and conservation, scores were calculated by averaging the scores for value types self-direction and stimulation and conformity, tradition and security respectively.

Following calculation of the higher-order value scores and their reliabilities, scores for self-transcendence + conservation (ST+C) values and similarly for self-enhancement + openness to change values (SE+OC), the values were calculated. In a similar manner to the calculation of higher-order value scores, the scores were computed by averaging the scores of self-transcendence and conservation higher-order values and by averaging the scores of self-enhancement and openness to change higher-order values. Following calculation of the higher-order values scores and their reliabilities, scores for self-transcendence + conservation (ST+C) values and similarly for self-enhancement + openness to change values (SE+OC), the values were calculated. In a similar manner to the calculation of higher-order value scores, the scores were computed by averaging the scores of self-transcendence and conservation higher-order values and by averaging the scores of self-enhancement and openness to change higher-order values.

Personality Traits: The five personality factors were measured with the English language big five inventory (BFI) (John et al., 1991) (Table 21). BFI is a 44-item scale used to assess the traits associated with each of the big five dimensions. These 44 items are short and easy to understand (Soto et al., 2011). Despite its concise nature, the BFI does not sacrifice content coverage or psychometric properties (Benet-Martinez and John, 1998). Participants were asked to rate each item on a 5-point agreement scale. Its suitability for this current research stems from its prior demonstration of internal consistency, reliability and convergence in line with other longer models (Benet-Martinez and John, 1998, Soto et al., 2008). Scores for each dimension were computed by calculating the participants' mean item response (dividing the sum of items scored on a scale by the number of items in the scale).

Table 21: English language big five inventory (BFI) (John et al., 1991)

BIG 5, 44 item Scale (Benet-Martinez and John, 1998)	
Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please choose a number for each statement to indicate the extent to which you agree or disagree with that statement. I see myself as someone who ... Disagree strongly (1), Disagree a little (2), Neither disagree nor agree (3) Agree a little (4) Agree strongly (5)	is talkative
	tends to find fault with others
	does a thorough job
	is depressed, blue
	is original, comes up with new ideas
	is reserved
	is helpful and unselfish with others
	can be somewhat careless
	is relaxed, handles stress well
	is curious about many different things
	is full of energy
	starts quarrels with others
	is a reliable worker
	can be tense
	is ingenious, a deep thinker
	generates a lot of enthusiasm
	has a forgiving nature
	tends to be disorganized
	worries a lot
	has an active imagination
	tends to be quiet
	is generally trusting
	tends to be lazy
	is emotionally stable, not easily upset
	is inventive
	has an assertive personality
	can be cold and aloof
	perseveres until the task is finished
	can be moody
	values artistic, aesthetic experiences
	is sometimes shy, inhibited
	is considerate and kind to almost everyone
	does things efficiently
	remains calm in tense situations
	prefers work that is routine
	is outgoing, sociable
	is sometimes rude to others
	makes plans and follows through with them
	gets nervous easily
	likes to reflect, play with ideas
	has few artistic interests
	likes to cooperate with others
	is easily distracted
	is sophisticated in art, music, or literature

Co-destruction/Co-creation Choice : Five scenarios (Table 22) were developed to investigate the influence of both values and traits on consumer choices. The scenarios were developed to mirror typical situations where firms interact with consumers, to determine personalities more likely to co-create or co-destroy value during interactions with firms. In all

five scenarios (Table 22), firms make value propositions and the resultant value created or destroyed depends on the consumer's choices. These scenarios were developed in line with Feather (1995), where hypothetical scenarios which engaged particular sets of values were designed. Like Feather (1995), each of the five scenarios presented a choice between actions and outcomes that were selected to engage different value types. Unlike Feather (1995), however, pitched scenarios were developed with alternatives which were either value-creating or value-destroying from the firm's perspective. The five scenarios reflected interactions within different contexts, namely: (1) Work (2) Product Usage (3) Virtual Communities (4) Community and (5) Vacation. These cases were chosen because they represent modern touchpoints of interactions between firms and consumers when it comes to both co-creation and co-destruction (Nambisan and Baron, 2009, Camilleri and Neuhofer, 2017, Carù and Cova, 2015, Smith, 2013, Yin et al., 2019). In each scenario, consumers had to choose between two alternatives which corresponded to opposing values. These values were on opposing sides of the Schwartz (1992a) circumplex model, facilitating comparisons between individual basic values, e.g. stimulation vs conformity, and higher-order values such as openness to change vs conservation. With traits postulated to correlate with choices eliciting the values they associate with (Roccas et al., 2002), the scenarios also made it possible to identify traits and their potential in predicting the co-creation and value co-destruction choice. Whilst the scenarios were developed in line with Feather (1995) and (Feather et al., 1998), this study adopted a refinement procedure outlined by (Bearden et al., 2001, Yi and Gong, 2013), which outline refinement procedures for scale development. Thus, prior to testing the scenarios, each scenario was examined by 2 members of the Newcastle University faculty to ensure each scenario reflected the values they elicit. After reading the definition of each of the values for each scenario, the faculty members assigned the two choice options in each scenario to the values they elicit. Each scenario was subsequently tested in a pilot study in line with (Van Teijlingen and Hundley, 2001)(Section 5.5.1), following which no changes were suggested.

Table 22: Scenarios

Context	Scenario	Option	Assumed Values	Co-creation/ Co-destruction
Work	On the morning of an important presentation which will determine if your organisation is awarded a multimillion-dollar contract, you stop by to get printed out brochures which are crucial to the success of the presentation. On getting to the printers, you find a queue with a few people and a slow employee. At the rate the employee is working, you will not be able to make it in time for the presentation. An unsuccessful presentation will also cost a big bonus, a promotion and possibly your job. What do you do?	Jump the queue.	Achievement	Co-destruction
		Hold on and wait for your turn.	Universalism	Co-creation
Purchase	After purchasing a new device which you intend to use for demanding tasks, you realise the manufacturer specifically stated guidelines for use which limits its use for certain tasks (including yours). This means you will not be able to use the device to produce results at the rate you need to complete this task. You can, however, make adjustments to the device's specifications to churn out results at your desired rate. What do you do?	Adjust the device and use as you please.	Self-Direction	Co-destruction
		Stick to the manufacturer's guidelines.	Conformity	Co-creation
Virtual Community	Whilst participating in online product development forums, you have been the go-to person for the development of certain modules. These modules are crucial to every contribution and your sole ability to develop them has given you great influence in the community. You have enjoyed the privilege of being able to influence the inclusion of other members on projects. Knowledge of how to develop these modules by other members in the forum will greatly improve their contribution but this will reduce your influence, putting you on a par with everyone else. Would you….?	Continue working as the sole module developer.	Power	Co-destruction
		Teach or direct them towards how to build these modules.	Benevolence	Co-creation
Community	Generations of your family have purchased freshly made bread from a specific neighbourhood store. You grew up within this neighbourhood and you are on first name terms with the store owners and attendants. Yourself and your family members also have traditionally helped with referring new neighbours to this store. Recently,	Switch to a new store with a reputation for fresh bread and tell family members and neighbours about it.	Hedonism	Co-destruction

	however, this store has occasionally sold unfresh day old bread with a slightly noticeable difference in taste. What do you do?	Ignore this and continue purchasing from the store.	Tradition	Co-creation
Vacation	While on vacation with your friends, you decide to visit a theme park with giant slides. Whilst these slides were designed to accommodate one individual at a time, jumping in with your friend is more fun. Having two people on the slide at the same time could damage the slide. Your mate is about to jump in and you are behind him. Would you….?	Jump in as soon as he/she jumps in.	Stimulation	Co-destruction
		Wait till he is out on the other side before jumping in.	Security	Co-creation

In developing the scenarios, careful consideration was taken to determine which of the choice alternatives elicited values that facilitated co-destruction or co-creation. This was determined based on the definitions of these values given by Schwartz (1992a), their conflicts and compatibilities and their division into values, which show a social focus versus values which show a personal focus (Schwartz et al., 2012). Power and achievement values both emphasise social superiority and esteem and facilitate the pursuit of one's own relative success and dominance over others. Consequently, when put in conflicting situations individuals high on these values will tend to consider their own success and dominance. Achievement and hedonism values are both concerned with self-indulgence, while stimulation and self-direction values emphasise independent thought and action. This makes individuals high on these values more likely to think in support of one's self. Hedonism and stimulation values also support a desire for affectively pleasant arousal and indulgence in one's own desires. These five personally focused values were grouped under the higher-order values openness to change (self-direction, stimulation and hedonism) and self-enhancement (achievement, power and hedonism), testing for destructive behaviour in the scenarios. They also conflict with the socially focused five values grouped under higher-order values conservation (conformity, tradition and security) and self-transcendence (universalism and benevolence).

Universalism and benevolence values are both values with a focus on the enhancement and acceptance of others as equals, the denial of selfish interests and the concern for the welfare of others. Tradition and conformity both support self-restraint, submission, the restraints of one's own impulses and acceptance of externally imposed limits. Individuals high on these values are more likely to play according to the rules of organisations and support co-creation. Conformity and security support harmony in relationships and the protection of order and

stability. This set of five values is socially focused, more harmonious in nature and more likely to facilitate co-creation.

Each scenario had two choice alternatives, one which resulted in value co-creation and another which resulted in value destruction. These choice alternatives were also developed to engage value types on opposing sides of Schwartz's circumplex model (Schwartz, 1992a). Participants were asked to read the scenarios and choose one of the alternatives. The five scenarios tested two of the values as per Appendix 10. Each of the choice alternatives in the scenarios was coded '0' for the choice alternative deemed co-destructive and '1' for the choice alternative deemed co-creative.

Motivation: Financial motivation and revenge motivation and egoistic items were adopted from Daunt and Harris (2012b), while hedonic motivation items were adopted from Nambisan and Baron (2009). Altruistic motivation items were adopted from Hennig-Thurau et al. (2004). Participants were asked to rate the extent to which the motivation items constituted a factor in their decision to co-destroy and co-create (Table 23 & 24) on a 7-point Likert scale between strongly disagree and strongly agree.

Table 23: Motivation (Co-destruction)

Questions in this section are about understanding motivational and social factors that influence individual decisions to **co-destroy** value during interactions with firms.

Think of a time you had a negative experience with a firm's product, service or employee and you felt justified to take negative actions towards the firm. This could include complaining, negative feedback, negative word of mouth, etc. On a scale of 1 to 7, rate the extent to which the following items constituted a factor in your decision to act. I took action...

Motivation to Co-destroy	
Financial Motives (Daunt and Harris, 2012b)	To gain some money to gain something for nothing Because I made some money acting this way
Revenge Motives (Daunt and Harris, 2012b)	To teach the firm a lesson To get back at the firm As an act of revenge
Egoistic Motives (Daunt and Harris, 2012b)	to feel good about myself Because other people were with me To impress other people who were around me
Hedonic Motives (Nambisan and Baron, 2009)	Because it was enjoyable and relaxing Because it was fun and pleasurable Because it entertains and stimulates my mind Because I derive enjoyment from it

Table 24: Motivations (Co-create)

Questions in this section are about understanding motivational and social factors that influence individual decisions to co-create value during interactions with firms.

Think of a time you had a positive experience with a firm's product, service or employee and you felt justified to take positive actions towards the firm. This could include giving positive feedback, positive word of mouth, collaborating with the firm etc. On a scale of 1 to 7, rate the extent to which the following items constituted a factor in your decision to act. I took action...

Motivation to Co-create	
Financial Motives (Daunt and Harris, 2012b)	To gain some money to gain something for nothing Because I made some money acting this way
Egoistic Motives (Daunt and Harris, 2012b)	to feel good about myself Because other people were with me To impress other people who were around me
Hedonic Motives (Nambisan and Baron, 2009)	Because it was enjoyable and relaxing Because it was fun and pleasurable Because it entertains and stimulates my mind Because I derive enjoyment from it
Altruistic Motives (Hennig-Thurau et al., 2004)	To warn others of bad products To save others from having the same negative experiences as me To help others with my own negative experiences To give others the opportunity to buy the right product

Benefits: Both hedonic and utilitarian benefit items were adopted from (Voss et al., 2003). They contained 4 and 5 items respectively, asking participants to select a point on a 7-point scale which best describes their decision to destroy (Table 25) or create (Table 26) value, depending on whether co-creation or co-destruction was being tested.

Table 25: Benefits (Co-destruction)

For each of the word pairs below, please select a point between which you believe best describes your action to destroy value.

Benefits to Co-destroy	
Hedonic Benefits (Voss et al., 2003)	Not fun – Fun Dull – Exciting Not delightful – Delightful Unenjoyable – Enjoyable
Utilitarian Benefits (Voss et al., 2003)	Ineffective - Effective Unhelpful – Helpful Not functional – Functional Not necessary – Necessary Impractical – Practical

Table 26: Benefits (Co-creation)

For each of the word pairs below, please select a point between which you believe best describes your action to **create** value.

Benefits to Co-create	
Hedonic Benefits (Voss et al., 2003)	Not fun – Fun Dull – Exciting Not delightful – Delightful Unenjoyable – Enjoyable
Utilitarian Benefits (Voss et al., 2003)	Ineffective - Effective Unhelpful – Helpful Not functional – Functional Not necessary – Necessary Impractical – Practical

5.5.2. Sampling Procedure

Following the establishment of the data collection procedure and measurement items, this section deals with the determination of the sample size. A sample is a segment of the population selected for investigation (Bell et al., 2018). It is usually a subset of the population. Selecting a sample is an important step while researching since it is rarely practical, efficient or ethical to study whole populations (Marshall, 1996). Moreover, since research is often geared at making inferences about the population, selecting a sample representative of the population is important. Sampling methods typically described within

the literature include quota sampling, purposive sampling or random sampling (Cochran, 2007). The selection of an appropriate sampling method depends on the aim of the study (Marshall, 1996). This study aims to draw a representative sample so that the results of the study can be generalised back into the population, therefore a random sampling method was adopted. In a random sample, the nature of the population is defined and each member has an equal chance of selection (Marshall, 1996). Defining the population, selecting the sample and ultimately administering the survey followed guidelines outlined by Bell et al. (2018).

Population: This study focuses on identifying consumer antecedents and consequences of co-creation/co-destruction. Thus it requires understanding consumers who interact with firms. Consumers interact with firms at various touchpoints (Vargo and Lusch, 2004), thus the population of interest can be from any suitable country where consumers interact with firms. For this research, the United States was chosen as the population for study due to its status as a developed country and in line with the method of data collection (web-based surveys) and its 90% internet penetration (Statista, 2019).

Sample Size Determination: Within a quantitative survey, determining sample size is essential (Bartlett et al., 2001). Various factors affect the sample size for any particular study. These include: the scope of the study, the nature of the topic, the quality of the data, study design, the use of shadowed data (Morse, 2000), the purpose of the study, population size, risk of selecting a bad sample and allowable sampling error (Bartlett et al., 2001). With quantitative studies, the aim is to make inferences about larger groups which are expensive to study from smaller groups, thus it is essential that the sample size required to infer findings is carefully determined. As the sample size increases, sampling error decreases, therefore the researcher should be certain about how much sampling error he/ she is prepared to tolerate (Bell et al., 2018). Cochran (2007) highlighted considerations for determining sample sizes when continuous and categorical data are being collected. Cochran (2007) reported that one method to determine sample size is to specify the margin of error for items most vital to the survey and an estimation of the sample size is necessary for each of these items. When these calculations are complete, the researcher will have a range of sample sizes, ranging from smaller sample sizes for scaled continuous variables to larger sample sizes for dichotomous categorical variables (Bartlett et al., 2001). This research utilises both categorical and continuous variables and is divided into four models analysed using logistic regression, multiple regression and structural equation modelling (SEM). The total sample size was therefore selected in line with the important categorical variables. In this study, all responses

were collected in one survey and a total of 699 participants made up the initial sample size. 189 incomplete responses were deleted. Due to the length of the survey, participants were not mandated to complete questions on the co-creation and co-destruction scale. This was because the chosen method of analysis (regression analysis) for studies using the co-creation and co-destruction scale requires a smaller sample size in comparison to studies analysed using logistic regression. The sample showed substantial variance on key demographic characteristics and included a range of ethnic groups, education and employment levels (Table 27). 390 observations were used for study 1, 2 & 4, which were analysed by multiple regression and SEM respectively, while 458 observations were used for study 3, which was analysed using logistic regression. Determination of sample sizes is shown below and details of the Measurement items and participants are shown in the next section.

Table 27: Demographic profile of respondents

Demographic	Group	N	%
Gender	Males	214	46.7
	Females	244	53.3
Age	<19	2	0.4
	20 - 29	58	12.7
	30 - 39	54	11.8
	40 - 49	54	11.8
	50 - 59	117	25.5
	>60	173	37.8
Income	<$24,999	110	24.0
	$25,000-$49,999	147	32.1
	$50,000-$74,999	72	15.7
	$75,000-$99,999	54	11.8
	>$100,000	75	16.4
Ethnicity	African American	38	8.3
	USA White	369	80.6
	Asian American	18	3.9
	Hispanic American	17	3.7
	Multiracial	5	1.1
	Other White Background	10	2.2
	Other	1	0.2
Employment	Full time	178	38.9
	Part-time	49	10.7
	Out of work (searching)	21	4.6
	Out of work (not searching)	4	0.9
	Homemaker	38	8.3
	Student	8	1.7
	Retired	121	26.4
	Unable to Work	39	8.5
Education attainment	Some high school or less	7	1.5
	High school graduate or equivalent	90	19.7
	Vocational/technical school (two-year program)	60	13.1
	Some college, but no degree	104	22.7
	College graduate (four-year program)	116	25.3
	Some graduate school	13	2.8
	Graduate degree	54	11.8
	Professional degree (M.D., J.D., etc.)	14	3.1

Multiple Regression Sample Size: For multiple regression, the sample size is the single most influential element under the control of the researcher in designing the analysis. Sample size affects the statistical power of the significance test and the generalizability of the results. Small samples with less than 30 observations are appropriate for regressions with only one

predictor variable while larger samples with close to 1000 observations make the results very sensitive (Hair et al., 2014). Where a large or medium effect is expected, a sample size of 77 and 160 respectively will suffice (Field, 2013).

Logistic Regression Sample Size: Hair et al. (2014) specified sample sizes for logistic regression, multiple regression and SEM. Logistic regression is different from other regression techniques because of its use of maximum likelihood (MLE) as the estimation technique. MLE requires larger samples such that, all things being equal, logistic regression will require a larger sample size than multiple regression. According to Hair et al. (2014), Hosmer and Lemeshow recommend a sample size greater than 400 for logistic regressions.

SEM Sample Size: SEM is more sensitive to sample size than other multivariate approaches and opinions about the appropriate sample size for SEM have varied (Hair et al., 2014, Lomax and Schumacker, 2004). Lomax and Schumacker (2004), however, point out that most articles used between 250 and 500 observations. Like other multivariate techniques, the greater the sample size, the more likely it is one can validate the model using cross-validation methods.

5.5.3. Analysis

Common Method Variance: Data for this study was collected using a single web-based study. The use of a single method of data collection could introduce common method variance (CMV) (Podsakoff et al., 2003). Common method variance refers to the amount of spurious covariance shared among variables because of the common method used in collecting data (Buckley et al., 1990). The issues associated with common method bias have long been recognized in the research literature (Arndt and Crane, 1975, Bagozzi, 1984). CMV biases estimates of construct validity and reliability (Bagozzi, 1984, Podsakoff et al., 2003) and it can introduce bias to estimates of the relationship between two different constructs (Podsakoff et al., 2003). To test for CMV, this study utilises the Harman's single factor test, a technique frequently adopted by researchers to assess the existence of common method bias (Podsakoff and Organ, 1986). An unrotated factor solution of a principal component analysis revealed that the first factor accounted for only 27.6% of variance. This indicates that a single factor does not account for the majority of the variance. 27.6% is less than the 50% threshold level (Chaubey et al., 2019), indicating the absence of CMV.

Non-Response Bias: Bias refers to the introduction of systematic errors in the design, data collection, data analysis, or publication of a study (Sedgwick, 2014). Whilst both response and non-response bias could introduce systematic errors in a study, response bias occurs if there is a systemic difference in the way respondents answered questions while non-response bias occurs where there is a systemic difference in the characteristics between non responders and responders (Sedgwick, 2014). Where there is non-response bias and hence a difference in the characteristics of responders and non-responders, the selected sample may not be representative of the population of interest. Collected responses may, therefore, differ from those of non-responders. Non-response bias is handled in a number of ways.

To assess non-response bias, this study utilises the extrapolation method (Armstrong and Overton, 1977), which assumes that late or unwilling responders are more likely to bear the characteristics of non-responders. For this study, late responders were classified as respondents who responded in the last wave of data collection. From a total of 510 responses, 404 (79.2%) were classified as early respondents while 106 (20.8%) were classified as late respondents.

In line with Armstrong and Overton (1977), an independent sample t-test was conducted to determine the presence of non-response bias in this study. Levene's test for homogeneity of variances indicates no significant difference in terms of homogeneity of variances between the early and late responses for each construct (Table 28).

Table 28: Assessment of non-response bias

Construct	Early vs Late	N	Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means		
					F	Sig.	t	df	F
Financial Motives CC	Early	404	3.847	1.710	0.207	0.650	2.463	508	0.207
	Late	106	3.390	1.671					
Egoistic Motives CC	Early	404	3.974	1.570	0.775	0.379	1.892	508	0.775
	Late	106	3.648	1.628					
Altruistic Motives CC	Early	404	4.043	1.596	1.603	0.206	0.790	508	1.603
	Late	106	3.903	1.730					
Hedonic Motives CC	Early	404	4.274	1.658	0.358	0.550	1.258	508	0.358
	Late	106	4.047	1.637					
Utilitarian Benefits CC	Early	404	5.320	1.208	0.095	0.758	0.007	508	0.095
	Late	106	5.319	1.170					
Hedonic Benefits CC	Early	404	4.968	1.304	2.010	0.157	0.295	508	0.768
	Late	106	4.926	1.208					
Information Seeking CC	Early	404	4.503	1.399	2.171	0.141	0.648	508	0.517
	Late	106	4.406	1.278					
Information Sharing CC	Early	404	5.073	1.303	0.002	0.961	-0.517	508	0.605
	Late	106	5.147	1.308					
Responsible Behaviour CC	Early	403	5.156	1.298	0.011	0.917	-0.020	507	0.984
	Late	106	5.159	1.333					
Personal Interaction CC	Early	403	5.399	1.327	0.448	0.504	-1.121	506	0.263
	Late	105	5.565	1.454					
Feedback CC	Early	403	5.005	1.302	0.006	0.939	-1.276	507	0.203
	Late	106	5.187	1.330					
Advocacy CC	Early	403	5.048	1.330	0.244	0.622	-1.254	507	0.210
	Late	106	5.233	1.408					
Helping CC	Early	403	4.579	1.432	0.011	0.918	-0.539	507	0.590
	Late	106	4.664	1.433					
Tolerance CC	Early	403	4.574	1.193	0.015	0.903	0.361	507	0.719
	Late	106	4.527	1.234					
Financial Motives CD	Early	404	3.371	1.763	0.040	0.841	2.767	508	0.006
	Late	106	2.846	1.646					
Egoistic Motives CD	Early	404	3.392	1.726	0.028	0.867	1.731	508	0.084
	Late	106	3.069	1.639					
Revenge Motives CD	Early	404	3.511	1.741	0.019	0.890	2.816	508	0.005
	Late	106	2.978	1.705					
Hedonic Motives CD	Early	404	3.364	1.848	0.096	0.756	1.889	508	0.059
	Late	106	2.983	1.837					
Utilitarian Benefits CD	Early	404	4.632	1.536	1.029	0.311	1.126	508	0.261
	Late	106	4.446	1.450					
Hedonic Benefits CD	Early	404	3.904	1.756	0.992	0.320	2.375	508	0.018
	Late	106	3.457	1.605					

Information Seeking CD	Early	404	3.565	1.613	1.203	0.273	2.330	508	0.020
	Late	106	3.167	1.379					
Information Sharing CD	Early	404	3.210	1.689	0.151	0.698	3.607	508	0.000
	Late	106	2.554	1.571					
Responsible Behaviour CD	Early	404	3.174	1.736	0.711	0.400	3.087	508	0.002
	Late	106	2.600	1.582					
Personal Interaction CD	Early	404	3.194	1.727	0.121	0.728	2.544	508	0.011
	Late	106	2.717	1.680					
Feedback CD	Early	404	3.240	1.665	0.440	0.507	2.805	508	0.005
	Late	106	2.736	1.581					
Advocacy CD	Early	404	3.701	1.654	0.704	0.402	1.126	508	0.261
	Late	106	3.497	1.681					
Helping CD	Early	404	3.166	1.680	0.011	0.915	2.214	508	0.027
	Late	106	2.763	1.629					
Tolerance CD	Early	404	3.804	1.504	0.067	0.795	2.013	508	0.045
	Late	106	3.475	1.469					
Extraversion	Early	404	4.127	1.029	0.791	0.374	0.567	508	0.571
	Late	106	4.063	1.080					
Agreeableness	Early	404	4.916	0.996	0.088	0.766	-2.532	508	0.012
	Late	106	5.191	0.995					
Conscientiousness	Early	404	5.045	0.995	0.850	0.357	-2.805	508	0.005
	Late	106	5.353	1.052					
Neuroticism	Early	404	3.629	1.099	1.212	0.271	1.048	508	0.295
	Late	106	3.501	1.201					
Openess	Early	404	4.573	0.883	0.025	0.875	0.664	508	0.507
	Late	106	4.508	0.907					
Power	Early	404	4.56	2.203	0.166	0.684	1.947	508	0.052
	Late	106	4.09	2.189					
Achievement	Early	404	5.51	2.044	0.005	0.941	0.002	508	0.998
	Late	106	5.51	2.025					
Hedonism	Early	404	4.92	2.244	0.010	0.922	1.194	508	0.233
	Late	106	4.63	2.197					
Stimulation	Early	404	5.22	2.099	2.091	0.149	1.202	508	0.230
	Late	106	4.94	1.970					
Self-Direction	Early	404	6.29	2.007	0.042	0.838	-1.229	508	0.220
	Late	106	6.56	2.019					
Universalism	Early	404	6.01	2.158	0.246	0.620	-0.147	508	0.883
	Late	106	6.05	2.197					
Benevolence	Early	404	6.55	1.989	0.101	0.751	-2.181	508	0.030
	Late	106	7.03	1.997					
Tradition	Early	404	6.20	2.080	0.618	0.432	-1.479	508	0.140
	Late	106	6.53	1.991					
Conformity	Early	404	6.00	2.149	0.086	0.770	-2.091	508	0.037
	Late	106	6.48	2.053					
Security	Early	404	6.43	1.949	1.878	0.171	-1.796	508	0.073
	Late	106	6.81	1.852					

Multicollinearity: Multicollinearity occurs when any single independent variable is highly correlated with a set of other independent variables. (Hair et al., 2014). High correlations between two variables suggest that they represent the same underlying construct. Multicollinearity therefore refers to a relationship between predictor variables which is either exactly linear or nearly linear (Paul, 2006). A correlation of 0.9 or higher between two variables could suggest multicollinearity problems (Hair et al., 2014). Problems with multicollinearity are also identified by examining the correlations between latent constructs through the variance inflation factor (VIF). Where the VIF is greater than 10, multicollinearity is high (Tabachnick et al., 2007). Multicollinearity tests for this study are reported in Table 29.

Table 29: Multicollinearity assessment

Construct	Tolerance	VIF
SE+OC	.614	1.628
ST+C	.614	1.628
Extraversion	0.738	1.355
Agreeableness	0.388	2.575
Conscientiousness	0.343	2.919
Neuroticism	0.512	1.955
Openness	0.758	1.318
Power	0.440	2.270
Achievement	0.373	2.683
Hedonism	0.433	2.310
Stimulation	0.363	2.755
SelfDirection	0.326	3.065
Universalism	0.405	2.469
Benevolence	0.349	2.863
Tradition	0.330	3.031
Conformity	0.324	3.087
Security	0.440	2.270
Financial Motives CD	0.246	4.061
Egoistic Motives CD	0.165	6.044
Revenge Motives CD	0.431	2.318
Hedonic Motives CD	0.262	3.810
Utilitarian Benefits CD	0.597	1.675
Hedonic Benefits CD	0.357	2.805
Financial Motives CC	0.337	2.968
Egoistic Motives CC	0.253	3.958
Altruistic Motives CC	0.551	1.814
Hedonic Motives CC	0.474	2.110
Utilitarian Benefits CC	0.443	2.258
Hedonic Benefits CC	0.388	2.576

Cronbach's Alpha Coefficients: Cronbach's alpha coefficients were calculated for the co-destruction and co-creation items, co-destruction and co-creation scores, higher-order values, value groups and personality traits (Table 29). Cronbach alpha scores for motivation items and benefits are shown in table 42 and 43 respectively. For basic human values, value groups and personality traits, two sets of alpha scores were calculated. One set of alpha scores was calculated with 390 respondents for study 1, 2 and 4, and a second set for study 4, with 458 respondents.

Table 30: Cronbach's alpha coefficients

Co-destruction Dimensions		α (n-390)	α (n-458)
Defiance	Ignoring Information	0.910	
	Withholding Information	0.972	
	Irresponsible Behaviour	0.978	
	Impersonal Interaction	0.979	
Subversion	Negative Feedback	0.926	
	Opposition	0.924	
	Neglecting	0.959	
	Intolerance	0.850	
Co-creation Dimensions		α (n-390)	
Participation	Information Seeking	0.863	
	Information Sharing	0.936	
	Responsible Behaviour	0.964	
	Personal Interaction	0.967	
Citizenship	Feedback	0.896	
	Advocacy	0.939	
	Helping	0.950	
	Tolerance	0.782	
Co-destruction & Co-creation Score		α (n-390)	
	Co-destruction Score	.962	
	Co-creation Score	.936	
Basic Human Values		α (n-390)	α (n-458)
Higer-order Values	Self-transcendence	.831	.811
	Conservation	.893	.890
	Self-enhancement	.824	.831
	Openness to change	.677	.700
Value Groups		α (n-390)	α (n-458)
	Self-transcendence + Conservation	.895	
	Self-enhancement + Openness to change	.854	
Personality Traits		α (n-390)	α (n-458)
	Extraversion	.807	.803
	Agreeableness	.827	.830
	Conscientiousness	.854	.851
	Neuroticism	.843	.842
	Openness	.817	.812

Exploratory Factor Analysis: Following the data collection and the calculation of variables, each of the 8 co-destruction first-order dimensions was evaluated using exploratory factor analysis (EFA) (principal factor analysis with varimax rotation). For each dimension, all items had factor loadings above 0.6 and loaded onto one factor respectively. The 8 Eigenvalues all exceeded 1.0 and explained 67.44 – 91.77% of the total variance across the dimensions. All Kaiser–Meyer Olkin (KMO) values were above 0.6 and Bartlett's test of sphericity was significant in all cases. Factors were not rotated because only one factor loaded for each dimension.

Values, Traits and Co-destruction/Co-creation behaviour: To determine the relationships between self-enhancement and openness to change (SE+OC) value score and self-transcendence and conservation (ST+C) value scores and co-destruction and co-creation, correlations between the value scores and the co-creation and co-destruction dimensions along with a series of regression analyses were computed. The SE+OC value score and also the ST+C value score were the independent variables, while the co-creation and co-destruction dimensions were the dependent variables. Regression analysis was used instead of SEM to evaluate the effects due to the way the basic values were measured. SEM requires the use of multiple items per variable, and the Short Schwartz's Value Survey (SSVS) requires individuals to rate the importance of the 10 values directly, therefore only one item was used to measure each basic value. Next, the correlations between the traits and the co-destruction and co-creation participation and citizenship dimensions and the correlations between co-destruction and co-creation scores were computed. This was followed by a series of regression analyses. The 5 personality traits were the independent variables, while the co-creation and co-destruction scores were the dependent variables.

Values, Traits and Co-destruction/Co-creation Choice: Once the relationships between values, traits and co-creation/co-destruction were established and co-destructive values and traits were identified, correlations between the choice alternatives and value types and choice alternatives and higher-order values were calculated. Logistic regression analysis was used to determine the effect of values and traits on the co-creation/co-destruction choice.

Motivation, Benefits and Co-destruction/Co-creation Behaviour: The effect of the identified motives and benefits was tested on the co-creation and co-destruction dimensions with Structural Equation Modelling (SEM) using SPSS v.24 and SPSS Amos v.25. The data

was analysed following the process suggested by Hair et al. (2014) and Field (2013). SPSS v.24 and SPSS Amos v.25 were used for the statistical analysis of the hypotheses.

5.5.4. Methodological Limitations

To determine the relationship between basic human values, personality traits and co-destruction/co-creation behaviour, this work employs multiple regression analysis instead of structural equation modelling (SEM) due to the way basic human values were measured. The 10 basic values were measured with the Short Schwartz's Value Survey (SSVS). SSVS requires individuals to rate the importance of the 10 values directly, therefore only one item was used to measure each basic value. SEM requires the use of multiple items per variable. SEM was therefore not suitable for determining the relationships.

Value co-destruction during interactions between firms and consumers can be intentional or unintentional (Plé and Cáceres, 2010). The use of a self-reported questionnaire limits the ability of this research to measuring only intentional co-destruction of value. The Yi and Gong (2013) co-creation scale was therefore adopted to measure only intentional co-destruction of value.

5.5.5. Ethical Considerations

Ethical issues play an important role in conducting business research (Sekaran and Bougie, 2016). Publishing ethical research therefore involves making ethical decisions from the inception of the research idea and throughout the research process (Wester, 2011). Throughout the design and excecution of this work, ethical implications which could negatively affect respondents were considered. The methodology was therefore adopted to ensure minimal ethical implications. Several steps were taken to reduce ethical concerns, this includes obtaining informed consent, ensuring data were collected anonymously via questionnaires and protecting the participants' confidentiality. Anonymity and confidentiality are of great importance, as highlighted by Bryman and Bell (2015). This research therefore ensured that no personal or identifiable information of the respondents was collected.

Prior to commencing data collection, this work sought ethical approval from the Newcastle University ethics committee and this was granted.

Chapter 6. Results

6.1. Introduction

This chapter details the results of this work and outlines the results of the four studies in four sections. Section one outlines the results of the multiple regressions and correlations of study one while section two outlines the results of the multiple regressions and correlations of study two. Section three outlines the details of the logistic regression, multiple regression and correlations of study three and section four details the results of the confirmatory factor analysis (CFA) and structural equation modelling (SEM) of study four.

6.2. Study 1: The Relationship between Values and Co-creation/Co-destruction

When value is being co-destroyed, stronger positive relationships and effects between SE+OC values and co-destruction subversion and co-destruction defiance dimensions in comparison to ST+C values were hypothesised (H1.1a and H1.1b). This can be seen in Tables 31-32 (Co-destruction) below, where all dimensions of value co-destruction defiance and subversion showed stronger positive correlations to and effects on SE+OC values in comparison to ST+C values. It was also hypothesised that the relationship and effect between ST+C values and co-creation citizenship and co-creation participation dimensions would be positive and stronger in comparison to SE+OC values when value is being co-created (H1.2a and H1.2b). This can be seen in Tables 31-32 (Co-creation) below, where all dimensions of value co-creation participation and citizenship, except information seeking, helping and tolerance, showed stronger positive correlations to and effects on ST+C values in comparison to SE+OC values.

Table 31: Correlations between co-destruction & co-creation dimensions & SE+OC values and ST+C values

Co-destruction									
	1	2	3	4	5	6	7	8	9
SE+OC	--								
Ignoring Information	.366**	--							
Withholding Information	.344**	.838**	--						
Irresponsible Behaviour	.327**	.800**	.945**	--					
Impersonal Interaction	.334**	.762**	.891**	.899**	--				
Negative Feedback	.315**	.780**	.909**	.922**	.890**	--			
Opposition	.311**	.626**	.577**	.624**	.635**	.615**	--		
Neglecting	.334**	.781**	.898**	.924**	.895**	.916**	.659**	--	
Intolerance	.298**	.627**	.616**	.621**	.666**	.638**	.671**	.654**	--

	1	2	3	4	5	6	7	8	9
ST+C	--								
Ignoring Information	0.027	--							
Withholding Information	-0.079	.838**	--						
Irresponsible Behaviour	-0.077	.800**	.945**	--					
Impersonal Interaction	-0.074	.762**	.891**	.899**	--				
Negative Feedback	-0.062	.780**	.909**	.922**	.890**	--			
Opposition	0.069	.626**	.577**	.624**	.635**	.615**	--		
Neglecting	-0.062	.781**	.898**	.924**	.895**	.916**	.659**	--	
Intolerance	0.077	.627**	.616**	.621**	.666**	.638**	.671**	.654**	--

Co-creation									
	1	2	3	4	5	6	7	8	9
SE+OC	--								
Information Seeking	.461**	--							
Information Sharing	.383**	.594**	--						
Responsible Behaviour	.375**	.520**	.924**	--					
Personal Interaction	.312**	.418**	.806**	.854**	--				
Feedback	.454**	.602**	.810**	.771**	.772**	--			
Advocacy	.424**	.578**	.781**	.772**	.768**	.827**	--		
Helping	.456**	.620**	.554**	.518**	.481**	.670**	.642**	--	
Tolerance	.452**	.506**	.544**	.531**	.540**	.555**	.603**	.556**	--
	1	2	3	4	5	6	7	8	9
ST+C	--								
Information Seeking	.355**	--							
Information Sharing	.530**	.594**	--						
Responsible Behaviour	.538**	.520**	.924**	--					
Personal Interaction	.567**	.418**	.806**	.854**	--				
Feedback	.557**	.602**	.810**	.771**	.772**	--			
Advocacy	.543**	.578**	.781**	.772**	.768**	.827**	--		
Helping	.371**	.620**	.554**	.518**	.481**	.670**	.642**	--	
Tolerance	.400**	.506**	.544**	.531**	.540**	.555**	.603**	.556**	--

Notes:SE+OC = Self-enhancement + Openness to change values / ST+C = Self-transcendence + Conservation values

Table 32: Regression results - co-destruction and co-creation

	Co-destruction				Co-creation			
Values	*β*	*t*	*b*	*SE*	*β*	*t*	*b*	*SE*
	Defiance				Participation			
	Ignoring Information (R^2=.188)				Information Seeking (R^2=.224)			
Constant		8.416***	2.405	0.286		9.314***	2.207	0.237
SE+OC	.534	9.440***	0.510	0.054	.386	6.972***	0.313	0.045
ST+C	-.287	-5.061***	-0.259	0.051	.128	2.317*	0.098	0.042
	Withholding Information (R^2=.243)				Information Sharing (R^2=.289)			
Constant		8.212***	2.416	0.294		11.325***	2.491	0.220
SE+OC	.596	10.881***	0.606	0.056	.110	2.076*	0.086	0.042
ST+C	-.429	-7.828***	-0.412	0.053	.465	8.777***	0.345	0.039
	Irresponsible Behaviour (R^2=.214)				Responsible Behaviour (R^2=.295)			
Constant		7.973***	2.416	0.303		11.321***	2.508	0.221
SE+OC	.569	10.239***	0.587	0.057	.090	1.710^{ns}	0.072	0.042
ST+C	-.411	-7.396***	-0.401	0.054	.485	9.191***	0.364	0.040
	Impersonal Interaction (R^2=.224)				Personal Interaction (R^2=.322)			
Constant		7.995***	2.428	0.304		12.468***	2.760	0.221
SE+OC	.578	10.437***	0.600	0.057	-.032	-0.620^{ns}	-0.026	0.042
ST+C	-.414	-7.478***	-0.406	0.054	.586	11.323***	0.448	0.040
	Subversion				Citizenship			
	Negative Feedback (R^2=.192)				Feedback (R^2=.335)			
Constant		8.239***	2.467	0.299		9.839***	2.120	0.216
SE+OC	.536	9.489***	0.538	0.057	.194	3.782***	0.154	0.041
ST+C	-.376	-6.665***	-0.357	0.054	.443	8.651***	0.333	0.039
	Opposition (R^2=.117)				Advocacy (R^2=.312)			
Constant		7.826***	2.495	0.319		10.420***	2.304	0.221
SE+OC	.413	7.001***	0.422	0.060	.160	3.073**	0.129	0.042
ST+C	-.174	-2.947**	-0.168	0.057	.449	8.622***	0.341	0.040
	Neglecting (R^2=.214)				Helping (R^2=.224)			
Constant		8.085***	2.386	0.295		8.539***	2.150	0.252
SE+OC	.566	10.172***	0.568	0.056	.364	6.575***	0.313	0.048
ST+C	-.395	-7.096***	-0.375	0.053	.157	2.841**	0.128	0.045
	Intolerance (R^2=.104)				Tolerance (R^2=.232)			
Constant		9.412***	2.692	0.286		12.016***	2.467	0.205
SE+OC	.387	6.501***	0.352	0.054	.331	6.006***	0.233	0.039
ST+C	-.150	-2.525*	-0.129	0.051	.206	3.744***	0.137	0.037

Notes: SE+OC = Self-enhancement + Openness to change values / ST+C = Self-transcendence + Conservation values

To confirm that the co-creation and co-destruction regression standardized beta weights are statistically significantly different from each other, their corresponding 95% confidence intervals were estimated via the bias corrected bootstrap (1000). A 50% or more overlap in the confidence intervals would mean the beta weights are not statistically significantly different from each other (Cumming, 2009). As seen in table 33, there was no overlap in the

95% confidence intervals between any of the co-destruction and co-creation beta weights. The beta weights can therefore be confirmed to be statistically different from each other.

Table 33: Bias corrected bootstrap test

	Co-destruction				Co-creation			
Values	*b*	*SE*	*Lower*	*Upper*	*b*	*SE*	*Lower*	*Upper*
	Defiance				Participation			
	Ignoring Information (R^2=.188)				Information Seeking (R^2=.224)			
Constant	1.759	0.046	-0.094	0.100	4.085	0.045	-0.090	0.093
SE+OC	0.534	0.057	0.407	0.660	0.386	0.055	0.261	0.507
ST+C	-0.287	0.057	-0.391	-0.181	0.128	0.055	-0.007	0.268
	Withholding Information (R^2=.239)				Information Sharing (R^2=.288)			
Constant	-6.218	0.044	-0.088	0.082	1.255	0.043	-0.086	0.085
SE+OC	0.596	0.055	0.473	0.734	0.110	0.053	-0.026	0.225
ST+C	-0.429	0.055	-0.520	-0.344	0.465	0.053	0.340	0.594
	Irresponsible Behaviour (R^2=.218)				Responsible Behaviour (R^2=.295)			
Constant	9.351	0.045	-0.079	0.077	1.844	0.043	-0.086	0.080
SE+OC	0.569	0.056	0.430	0.698	0.090	0.053	-0.040	0.222
ST+C	-0.411	0.056	-0.517	-0.300	0.485	0.053	0.363	0.622
	Impersonal Interaction (R^2=.224)				Personal Interaction (R^2=.322)			
Constant	-2.208	0.045	-0.086	0.088	1.687	0.042	-0.083	0.078
SE+OC	0.578	0.055	0.463	0.691	-0.032	0.052	-0.144	0.074
ST+C	-0.414	0.055	-0.507	-0.325	0.586	0.052	0.457	0.704
	Subversion				Citizenship			
	Negative Feedback (R^2=.192)				Feedback (R^2=.335)			
Constant	2.273	0.046	-0.088	0.088	1.307	0.041	-0.076	0.081
SE+OC	0.536	0.056	0.400	0.671	0.194	0.051	0.081	0.301
ST+C	-0.376	0.056	-0.479	-0.268	0.443	0.051	0.327	0.557
	Opposition (R^2=.117)				Advocacy (R^2=.312)			
Constant	-4.903	0.048	-0.095	0.096	2.394	0.042	-0.079	0.083
SE+OC	0.413	0.059	0.277	0.563	0.160	0.052	0.047	0.278
ST+C	-0.174	0.059	-0.296	-0.045	0.449	0.052	0.327	0.569
	Neglecting (R^2=.214)				Helping (R^2=.224)			
Constant	-6.521	0.045	-0.097	0.089	2.227	0.045	-0.087	0.094
SE+OC	0.566	0.056	0.432	0.707	0.364	0.055	0.241	0.496
ST+C	-0.395	0.056	-0.500	-0.290	0.157	0.055	0.031	0.292
	Intolerance (R^2=.104)				Tolerance (R^2=.232)			
Constant	1.128	0.048	-0.095	0.089	2.122	0.044	-0.085	0.087
SE+OC	0.387	0.059	0.248	0.533	0.331	0.055	0.203	0.465
ST+C	-0.150	0.059	-0.262	-0.030	0.206	0.055	0.085	0.340

6.3. Study 2: The Relationship between Personality Traits and Co-creation/Co-destruction

Results for the correlations between co-destruction dimensions and the five personality traits are shown in Table 34. Positive relationships between co-destruction and extraversion, openness and neuroticism traits were hypothesised (H2.1a, H2.3a, H2.5a). The results indicate that neuroticism showed significant positive relationships with all co-destruction dimensions and scores. Openness showed only three positive relationships with co-destruction dimensions (ignoring information, opposition and intolerance), of which only 2 were significant (opposition and intolerance). Extraversion showed positive and weak correlations with all co-destruction dimensions and scores. None of the extraversion relationships with co-destruction were significant. Agreeableness and conscientiousness (H2.2a, H2.4a) showed negative relationships with co-destruction dimensions, as hypothesised (Table 34).

Table 34: Correlations between co-destruction dimensions and scores and the five personality traits

	1	2	3	4	5	6	7	8	9	10	11	12	13	
Co-destruction Score	--													
Extraversion	0.043	--												
Agreeableness	-.496**	.265**	--											
Conscientiousness	-.507**	.258**	.760**	--										
Neuroticism	.391**	-.368**	-.572**	-.643**	--									
Openness	0.015	.458**	.295**	.326**	-.239**	--								
Ignoring Information	.872**	0.053	-.417**	-.434**	.335**	0.016	--							
Withholding Information	.940**	0.035	-.496**	-.519**	.379**	-0.028	.838**	--						
Irresponsible Behaviour	.949**	0.039	-.502**	-.522**	.382**	-0.033	.800**	.945**	--					
Impersonal Interaction	.935**	0.009	-.511**	-.516**	.395**	-0.010	.762**	.891**	.899**	--				
Negative Feedback	.939**	0.020	-.471**	-.515**	.375**	-0.046	.780**	.909**	.922**	.890**	--			
Opposition	.760**	0.054	-.290**	-.279**	.251**	.112*	.626**	.577**	.624**	.635**	.615**	--		
Neglecting	.947**	0.052	-.479**	-.510**	.375**	-0.002	.781**	.898**	.924**	.895**	.916**	.659**	--	
Intolerance	.767**	0.049	-.356**	-.298**	.286**	.103*	.627**	.616**	.621**	.666**	.638**	.671**	.654**	--

Table 35 shows the results of the correlations between co-creation dimensions and the big five personality traits. As hypothesised, extraversion and openness (H2.1b, H2.3b) showed positive relationships with all co-creation dimensions and scores. These relationships were all

significant. Agreeableness and conscientiousness (H2.2b, H2.4b) both showed positive relationships with all co-creation scores and dimensions, with the exception of the information-seeking dimension, which showed a negative relationship with conscientiousness. Agreeableness and conscientiousness also showed significant relationships with all co-destruction dimensions and scores, except the information seeking and tolerance dimensions (agreeableness) and the information seeking, helping and tolerance dimensions (conscientiousness). Neuroticism (H2.5b) showed relationships in the hypothesised direction except in the case of the information seeking and tolerance dimensions. The relationships between the information seeking, tolerance and helping dimensions, co-creation citizenship score and neuroticism were not significant.

Table 35: Correlations between co-creation dimensions and scores and the five personality traits

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Co-creation Score	--													
Extraversion	.420**	--												
Agreeableness	.287**	.265**	--											
Conscientiousness	.259**	.258**	.760**	--										
Neuroticism	-.103*	-.368**	-.572**	-.643**	--									
Openness	.474**	.458**	.295**	.326**	-.239**	--								
Information Seeking	.729**	.387**	0.027	-0.012	0.016	.368**	--							
Information Sharing	.904**	.350**	.307**	.295**	-.135**	.417**	.594**	--						
Responsible Behaviour	.885**	.271**	.320**	.315**	-.117*	.380**	.520**	.924**	--					
Personal Interaction	.847**	.276**	.415**	.417**	-.199**	.367**	.418**	.806**	.854**	--				
Feedback	.905**	.417**	.310**	.289**	-.132**	.487**	.602**	.810**	.771**	.772**	--			
Advocacy	.898**	.405**	.319**	.299**	-.102*	.461**	.578**	.781**	.772**	.768**	.827**	--		
Helping	.763**	.420**	.118*	0.066	-0.029	.349**	.620**	.554**	.518**	.481**	.670**	.642**	--	
Tolerance	.719**	.250**	0.086	0.049	0.019	.322**	.506**	.544**	.531**	.540**	.555**	.603**	.556**	--

Table 36 shows the effects of each of the five traits on the co-destruction and co-creation scores. The effect of all traits on co-destruction was in the hypothesised direction (H2.1a, 2.2a, 2.3a, 2.4a and 2.5a). Extraversion, neurotisism and openness showed positive

relationships with co-destruction while agreeableness and conscientiousness showed negative relationships with co-destruction. All the relationships between traits and co-destruction were significant. With regards to co-creation (H2.1b, 2.2b, 2.3b, 2.4b and 2.5b), extraversion, agreeableness, conscientiousness and openness traits showed effects in the hypothesised direction. Neuroticism traits did not show an effect in the hypothesised direction to co-creation. Extraversion, agreeableness, neuroticism and openness all showed significant relationships to co-creation while conscientiousness showed a non-significant relationship to co-creation.

Table 36: Regression results - co-destruction and co-creation

Dimension	Values	*β*	*t*	*b*	*SE*
Co-destruction Score (R^2=.354)	Constant		6.782***	4.687	0.691
	Extraversion	0.179	3.685***	0.246	0.067
	Agreeableness	-0.279	-4.351***	-0.404	0.093
	Conscientiousness	-0.298	-4.289***	-0.423	0.099
	Neuroticism	0.140	2.482*	0.181	0.073
	Openness	0.146	3.057*	0.234	0.076
Co-creation Score (R^2=.324)	Constant		-0.789^{ns}	-0.416	0.527
	Extraversion	0.294	5.930***	0.302	0.051
	Agreeableness	0.180	2.746**	0.194	0.071
	Conscientiousness	0.105	1.482^{ns}	0.111	0.075
	Neuroticism	0.251	4.340***	0.241	0.055
	Openness	0.312	6.379***	0.372	0.058

6.4. Study 3: The Influence of Basic Human Values and Personality Traits on Consumer Choices

Choice and Value Dimensions

H3.1a and H3.1b postulated that choices will correlate with the values they were designed to elicit. Each scenario had two choices, one choice which results in value co-creation and another which results in value co-destruction. Choices designed to test co-destruction were expected to show negative correlations with their matching value dimensions, while choices designed to test co-creation were expected to show positive correlations with their matching value dimensions.

As seen in Table 37, the first five values (power, achievement, hedonism, stimulation and self-direction) were values with choices designed to elicit value co-destruction, therefore, they were expected to negatively correlate with the choice alternatives (co-destructive choices were coded '0'). As hypothesised, four of the five values (power (-.092*), hedonism (-.159**), stimulation

(-.200**) and self-direction (-.204**)) showed significant negative correlations with the co-destructive choices. Values with choices designed to elicit co-creation (universalism, benevolence, tradition, conformity and security) were expected to show positive correlations with their respective choice alternatives. Only one, benevolence (.161**), showed significant positive correlations with co-creative choices. In line with the circumplex nature of the basic human values, values close to each other also showed the expected positive and negative correlations with choice in some of the scenarios.

Table 37: Correlations between value types and choice alternatives

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Power	--														
Achievement	.621**	--													
Hedonism	.653**	.589**	--												
Stimulation	.619**	.686**	.666**	--											
SelfDirection	.288**	.541**	.408**	.539**	--										
Universalism	.363**	.523**	.414**	.516**	.728**	--									
Benevolence	.172**	.438**	.269**	.398**	.694**	.685**	--								
Tradition	.224**	.385**	.302**	.364**	.538**	.443**	.665**	--							

Conformity	.267**	.411**	.296**	.343**	.472**	.445**	.621**	.773**	--						
Security	.229**	.454**	.272**	.324**	.608**	.537**	.692**	.692**	.728**	--					
Self-Direction vs Conformity	0.085	0.083	.118*	.148**	.204**	.125**	.136**	0.046	-0.019	0.087	--				
Hedonism vs Tradition	.230**	.132**	.159**	.180**	0.015	0.068	-0.045	-0.057	-0.024	0.030	0.038	--			
Achievement vs Universalism	0.052	0.028	0.065	0.026	0.064	0.023	0.008	-0.027	-0.040	0.052	.101*	0.091	--		
Stimulation vs Security	.232**	.172**	.208**	.200**	0.064	.109*	0.053	0.051	0.074	0.049	0.065	.146**	.146**	--	
Power vs Benevolence	.092*	-0.022	0.068	-0.050	-.151**	-.118*	-.161**	-.098*	-.115*	-.145**	-.100*	0.051	-.142**	-0.056	--

Choice and Personality Traits

Table 38 shows the correlations between the five personality traits and choice alternatives. H3.2a – 3.5 hypothesised that the five traits will correlate with choices eliciting the values they associate with. The four traits expected to show correlations with choices eliciting corresponding value types showed positive correlations in thirteen out of the sixteen expected correlations. Extraversion traits showed positive correlations with choices eliciting stimulation (-100*) and hedonism (-132**) values, and negative correlations with the choice eliciting tradition values (-132**). Agreeableness showed positive correlations with tradition (.129**) and benevolence (.220**) and negative correlations with power values (.220**). Conscientiousness did not show any significant correlations, while openness to experience showed positive correlations with self-direction (-.121**) values and negative correlations with conformity (-.121**) values. 50% of the expected correlations were significant. No

correlations were expected between neuroticism traits and any of the co-creation/co-destruction choice alternatives.

Table 38: Correlations between traits and choice alternatives

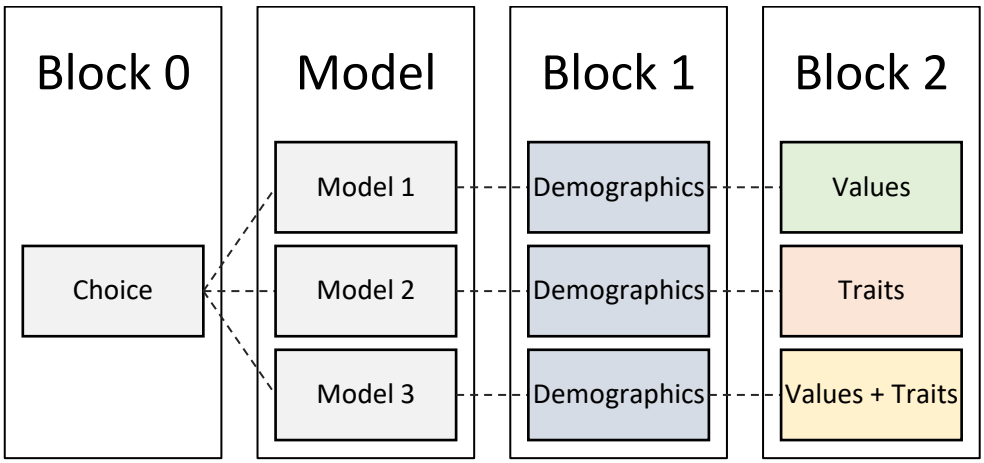
	1	2	3	4	5	6	7	8	9	10
Extraversion	--									
Agreeableness	.279**	--								
Conscientiousness	.252**	.761**	--							
Neuroticism	-.347**	-.584**	-.653**	--						
Openness To Experience	.459**	.309**	.320**	-.227**	--					
Purchase Self-Direction vs Conformity	-0.002	-0.062	-0.022	-0.006	.121**	--				
Community Hedonism vs Tradition	.132**	-.129**	-0.039	0.024	0.043	0.038	--			
Work Achievement vs Universalism	-0.003	-0.071	-0.027	0.061	0.058	.101*	0.091	--		
Vacation Stimulation vs Security	.100*	-.168**	-.210**	.133**	0.031	0.065	.146**	.146**	--	
Virtual Community Power vs Benevolence	-.113*	-.220**	-.201**	.095*	-.210**	-.100*	0.051	-.142**	-0.056	--

Logistic regression was used to determine the effect of values and traits on co-creation/co-destruction choices (H3.6). Logistic regression is the preferred method of regression for predicting and explaining binary (two-group) categorical variables. Logistic regression is therefore better for predicting our binary choice variables. It has widespread applications in situations where the primary objective is to identify the group to which an object belongs (Hair et al., 2014) and has been utilised within the literature in predicting choice (Terry Long, 2004, Caprara et al., 2006). The logistic regression coefficients reported in this paper are the odds ratio (OR). The odds ratio reflects the effect of unit changes in the predictor variable on the outcome variable when all other predictors are held constant. An OR above 1 depicts a positive relationship with the choice alternative coded '1', while an OR below 1 depicts a positive relationship with the choice alternative coded '0'. An OR of 1 means the predictor has no impact on the outcome variable (choice alternative).

For each of the scenarios, three models were tested, each with two steps. For all models, the first step entered demographic variables (age, gender, income, education and employment). The second step included the 10 value types in model 1, the 5 trait dimensions in model 2 and

a combination of the 10 value types and the 5 trait dimensions in model 3. This is shown in Figure 14 below.

Figure 14: Logistic regression models



The results for the logistic regression are shown in Table 39 below.

Table 39: Logistic regression results

	Model	Model χ2 (df)	Change Δχ2 (df)	Model p	Change p	Nagelkerke R2	% Correct Classification	-2LL
Purchase Scenario	Intercept						65.1	
	Demographics	39.802 (24)		.022		.115	66.8	552.887
	Values	72.813 (34)	33.011 (10)	.000	.000	.203	69.9	519.875
	Traits	49.603 (29)	9.801 (5)	.010	0.81	.141	67.2	543.085
	Values + Traits	81.237 (39)	41.434 (15)	.000	.000	.224	71.0	511.452
Community Scenario	Intercept						59.4	
	Demographics	22.505 (24)		.549		0.65	61.1	596.173
	Values	61.183 (34)	38.677 (10)	.003	.000	.169	65.1	557.495
	Traits	44.685 (29)	22.179 (5)	0.32	.000	.125	64.0	573.993
	Values + Traits	71.192 (39)	48.687 (15)	.001	.001	.194	67.9	547.486
Work* Scenario	Intercept						64.6	
	Demographics	28.224 (24)		.251		.082	65.7	566.914
	Values	40.996 (34)	12.772 (10)	.191	.237	.118	66.6	554.142
	Traits	35.042 (29)	6.818 (5)	.203	.235	.101	67.2	560.096
	Values + Traits	46.618 (39)	18.394 (15)	.188	.243	.133	68.1	548.520
Virtual Community Scenario	Intercept						76.4	
	Demographics	37.712 (24)		.037		.119	76.4	462.606
	Values	69.631 (29)	31.919 (10)	.000	.000	.212	76.9	430.687
	Traits	71.645 (29)	33.932 (5)	.000	.000	.218	76.9	428.674
	Values + Traits	87.952 (39)	50.240 (15)	.000	.000	.263	78.8	412.366
Vacation *	Intercept						88.4	
	Demographics	48.718 (24)		.002		.197	88.9	279.494

Values	65.351 (34)	16.632 (10)	0.01	0.83	.260	88.4	262.862
Traits	76.755 (29)	28.036 (5)	.000	.000	.302	88.4	251.458
Values + Traits	87.023 (39)	38.305 (15)	.000	.001	.338	88.0	241.189

For the purchase scenario, values showed higher classification (69.9%) of choice in comparison to traits (67.2%). Whilst both values and traits showed improvement to the intercept classification (65.1%), only values showed significant effects. Both values and traits explained 20.3% and 14.1% of the variance in co-destruction/ co-creation choice respectively. In the third model, combining both values & traits yielded the correct classification of 71% of choices, which is 5.9% better than the intercept classification and explained 22.4% of the variance in co-destruction/ co-creation choice. Just as in the purchase scenario, in the community scenario, the effect of values on co-creation/co-destruction choice was higher in comparison to the effect of traits on co-creation/co-destruction choice. Values showed a 65.1% classification of choice and explained 16.9% of the variance in choice in comparison to traits, which showed a 64% correct classification of choice and explained only 12.5% of the variance in co-creation/co-destruction choice. Unlike the purchase scenario, both values and traits produced significant effects on choice. Combining both values and traits yielded the correct classification of 67.9% of choice, 8.5% better than intercept classification, and both explained 19.4% of the variance in co-destruction and co-creation choice. In the work scenario, neither values nor traits individually/combined showed any significant improvement over the intercept model.

For the virtual community scenario, values and traits showed the correct classification of 76.9% of co-creation/co-destruction choice. Traits, however, explained 21.8% of the variance in co-creation/co-destruction choice while values explained only 21.2% of the variance in co-creation/co-destruction choice. Both values and traits contributed significantly to choice. The combination of values and traits produced the correct classification of 78.8% of co-creation/co-destruction choice. This was an improvement over the intercept model, which yielded the correct classification of 76.4% of co-creation/co-destruction choice. Both values and traits combined explain 26.3% of the variance in co-creation/ co-destruction choice. In the vacation scenario, both traits and values showed the correct classification of 88.4% of co-creation/co-destruction choice. In comparison to values, which explained only 26% of the variance in co-creation/co-destruction choice, traits explained 30.2% of the variance in co-creation/co-

destruction choice. Both values and traits combined yielded the correct classification of 88.0% of co-creation/co-destruction choice. This was slightly lower than the intercept model classification of 88.4% and classification provided in the first block (demographic variables) of 88.9%. Only trait dimensions contributed significantly to the prediction of co-creation/co-destruction choice in both models. Both models explained 33.8% of the variance in co-creation/ co-destruction choice.

The results generally show the combination of values and traits show higher classification and hence better prediction of co-creation/ co-destruction choice. In three of the four significant scenarios, the addition of values and traits showed higher classification in comparison to the intercept model (purchase scenario: 71% vs 65%) (community scenario: 67% vs 59.4%) and (virtual community scenario 78.8 vs 76.4%). In the fourth significant scenario, the combination of both values and traits showed lower classification/ prediction of co-creation/ co-destruction choice (vacation scenario 88.0% vs 88.4%).

6.5. Study 4. Consumer Motivations and Benefits of Value Co-destruction

Yi and Gong (2013)'s multidimensional scale considers co-creation to be a third-order construct with two second-order dimensions (participation behaviour and citizenship behaviour). First, the study tested the factorial validity of both value co-creation and value co-destruction. This step examined the third-order confirmatory factor analysis (CFA). Various indices did not attain acceptance levels for both co-destruction and co-creation third-order dimensions (co-destruction: $\chi 2$ (368) = 1553.121, CMIN/DF = 4.220, GFI=0.775, AGFI=0.734, CFI=0.935, RMSEA=0.091 and co-creation: $\chi 2$ (368) = 1633.246, CMIN/DF = 4.438, GFI=0.756, AGFI=0.712, CFI=0.914, RMSEA=0.094). This suggested a need for modifications. Accordingly, items were removed from both the co-destruction and co-creation scales (Table 40-41) and the withholding information and information sharing dimensions of both scales were removed. Following re-specification, the indices showed satisfactory acceptance levels (co-destruction: $\chi 2$ (82) = 250.556, CMIN/DF = 3.056, GFI=0.918, AGFI=0.880, CFI=0.981, RMSEA=0.073 and co-creation: $\chi 2$ (82) = 255.576, CMIN/DF = 3.117 GFI=0.927, AGFI=0.894, CFI=0.973, RMSEA=0.074). The next step was the pooled CFA, incorporating all the constructs for both the co-destruction model (financial, revenge, egoistic and hedonic motives and hedonic and utilitarian benefits) and co-creation model (financial, altruistic and hedonic motives and hedonic and utilitarian benefits). The

pooled CFA was undertaken to ensure construct reliability and validity for both the co-destruction model and the co-creation model. For both models, the model fit was satisfactory (Table 42-43).

Table 40: Co-destruction scale items - adopted from (Yi and Gong 2013)

Measurement Item	Initial Scale	Cronbach's α	Final Scale	Loading	Cronbach's α
Co-destruction Defiance					
Ignoring Information		0.910			-
I intentionally withheld information from others on what this service offers.	II1		-	-	
I intentionally have not searched for information on where this service is located.	II2		-	-	
I intentionally ignored paying attention to how others behave in order to use this service well.	II3		-	-	
Withholding Information		0.972		0.961	0.960
I intentionally did not clearly explain what I wanted the employee to do.	WI1		-	-	
I intentionally withheld important information from the employee.	WI2		WI2	0.950	
I intentionally provided unnecessary or did not provide all the information necessary and the employee could not perform his or her duties.	WI3		WI3	0.971	
I did not answer all the employee's service-related questions.	WI4		-	-	
Irresponsible Behaviour		0.978		0.989	0.972
I intentionally performed only a few or none of the tasks that were required.	IB1		IB1	0.954	
I inadequately completed all the expected behaviours intentionally.	IB2		-	-	
I Intentionally did not fulfil my responsibilities to the business.	IB3		IB3	0.966	
Intentionally, I did not follow the employee's directives or orders.	IB4		IB4	0.961	
Impersonal Interaction		0.979		0.942	0.970
I was not friendly to the employee intentionally.	ImI1		-	-	
I was unkind to the employee intentionally.	ImI2		ImI2	0.956	
I was impolite to the employee intentionally.	ImI3		ImI3	0.984	
I was discourteous to the employee intentionally.	ImI4		-	-	
I intentionally acted rudely to the employee.	ImI5		-	-	
Co-destruction Subversion					
Negative Feedback		0.926		0.988	0.937
If I have a useful idea on how to improve service, I intentionally don't let the employee know.	NF1		-	-	
Even when I receive good service from the employee, I intentionally complain about it.	NF2		NF2	0.955	

When I experience a problem, I intentionally don't let the employee know.	NF3		NF3	0.923	
Opposition		0.924		0.690	0.842
I intentionally said negative things about this firm and the employee to others.	O1		O1	0.942	
I intentionally dissuade others from this firm and the employee.	O2		-	-	
I intentionally discourage my friends and relatives from using this firm.	O3		O3	0.772	
Neglecting		0.959		0.993	0.932
I intentionally snub/hinder other customers if they need my help.	N1		-	-	
I intentionally don't help other customers if they seem to have problems.	N2		N2	0.928	
I intentionally teach other customers to use the service incorrectly.	N3		N3	0.940	
I intentionally give incorrect advice to other customers.	N4				
Intolerance		0.850		0.752	0.883
If service is not delivered as expected, I would not be willing to put up with it.	I1		-	-	
If the employee makes a mistake during service delivery, I would not be willing to be patient.	I2		I2	0.975	
If I have to wait longer than I normally expected to receive the service, I would not be willing to adapt.	I3		I3	0.811	

Table 41: Co-creation scale items - adopted from (Yi and Gong 2013)

Measurement Item	Initial Scale	Cronbach's α	Final Scale	Loading	Cronbach's α
Co-creation Participation					
Information Seeking		0.863			
I have asked others for information on what this service offers.	IS1				
I have searched for information on where this service is located.	IS2				
I have paid attention to how others behave to use this service well.	IS3				
Information Sharing		0.936		0.953	0.933
I clearly explained what I wanted the employee to do.	InS1				
I gave the employee proper information.	InS2		InS2	0.925	
I provided necessary information so that the employee could perform his or her duties.	InS3		InS3	0.947	
I answered all the employee's service-related questions.	InS4				
Responsible Behaviour		0.964		0.990	0.949
I performed all the tasks that were required.	RB1		RB1	0.954	
I adequately completed all the expected behaviours.	RB2				
I fulfilled my responsibilities to the business.	RB3		RB3	0.928	
I followed the employee's directives or orders.	RB4		RB4	0.904	

Personal Interaction		0.967		0.896	0.957
I was friendly to the employee.	PI1				
I was kind to the employee.	PI2		PI2	0.948	
I was polite to the employee.	PI3		PI3	0.969	
I was courteous to the employee.	PI4				
I didn't act rudely to the employee.	PI5				
Co-creation Citizenship					
Feedback		0.896		0.994	0.841
If I have a useful idea on how to improve service, I let the employee know.	F1				
When I receive good service from the employee, I comment about it.	F2		F2	0.871	
When I experience a problem, I let the employee know about it.	F3		F3	0.835	
Advocacy		0.939		0.969	0.871
I said positive things about this firm and the employee to others.	A1		A1	0.928	
I recommended this firm and the employee to others.	A2				
I encouraged my friends and relatives to use this firm.	A3		A3	0.832	
Helping		0.950		0.721	0.886
I assist other customers if they need my help.	H1				
I help other customers if they seem to have problems.	H2		H2	0.891	
I teach other customers to use the service correctly.	H3				
I give advice to other customers.	H4		H4	0.893	
Tolerance		0.782		0.809	0.822
If service is not delivered as expected, I would be willing to put up with it.	T1				
If the employee makes a mistake during service delivery, I would be willing to be patient.	T2		T2	0.910	
If I have to wait longer than I normally expected to receive the service, I would be willing to adapt.	T3		T3	0.766	

Table 42: Measurement items of constructs (co-destruction) model fit

Measurement Item		Loading	C.R	AVE	Cronbach's α
Financial Motives (Daunt and Harris, 2012b)					
I took action…	To gain some money	0.913	0.958	0.919	0.955
	Because I made some money acting this way	1.002			
Revenge Motives (Daunt and Harris, 2012b)					
I took action…	To teach the firm a lesson	0.859	0.944	0.850	0.941
	To get back at the firm	0.969			
	As an act of revenge	0.934			
Egoistic Motives (Daunt and Harris, 2012b)					
I took action…	Because other people were with me	0.940	0.944	0.893	0.944
	To impress other people who were around me	0.950			
Hedonic Motives (Nambisan and Baron, 2009)					
I took action…	Because it was enjoyable and relaxing	0.929	0.976	0.910	0.976
	Because it was fun and pleasurable	0.959			
	Because it entertains and stimulates my mind	0.966			
	Because I derive enjoyment from it	0.961			
Hedonic Benefits (Voss et al., 2003)					
	Not fun – Fun	0.935	0.956	0.844	0.954
	Dull – Exciting	0.837			
	Not delightful – Delightful	0.954			
	Unenjoyable - Enjoyable	0.943			
Utilitarian Benefits (Voss et al., 2003)					
	Ineffective - Effective	0.818	0.942	0.766	0.942
	Unhelpful – Helpful	0.919			
	Not functional – Functional	0.927			
	Not necessary – Necessary	0.829			
	Impractical – Practical	0.877			

χ2 (530) = 1374.931, CMIN/DF = 2.594, GFI = 0.827, AGFI = 0.794, CFI = 0.957, RMSEA = 0.064.

Table 43: Measurement items of constructs (co-creation) model fit

Measurement Item		Loading	C.R	AVE	Cronbach's α
Financial Motives (Daunt and Harris, 2012b)					
I took action…	To gain some money	0.917	0.931	0.872	0.931
	Because I made some money acting this way	0.950			
Egoistic Motives (Daunt and Harris, 2012b)					
I took action…	Because other people were with me	0.911	0.886	0.796	0.886
	To impress other people who were around me	0.874			
Hedonic Motives (Daunt and Harris, 2012b)					
I took action…	Because it was enjoyable and relaxing	0.919	0.951	0.828	0.951
	Because it was fun and pleasurable	0.938			
	Because it entertains and stimulates my mind	0.892			
	Because I derive enjoyment from it	0.890			
Altruistic Motives (Hennig-Thurau et al., 2004)					
I took action…	To save others from having the same negative experiences as me	0.884	0.922	0.856	0.920
	To help others with my own negative experiences	0.963			
Hedonic Benefits (Voss et al., 2003)					
	Not fun – Fun	0.828	0.918	0.738	0.918
	Dull – Exciting	0.841			
	Not delightful – Delightful	0.891			
	Unenjoyable - Enjoyable	0.875			
Utilitarian Benefits (Voss et al., 2003)					
	Ineffective - Effective	0.858	0.916	0.687	0.912
	Unhelpful – Helpful	0.888			
	Not functional – Functional	0.880			
	Not necessary – Necessary	0.718			
	Impractical – Practical	0.786			

χ2 (497) = 1262.265, CMIN/DF = 2.540, GFI = 0.841, AGFI = 0.810, CFI = 0.945, RMSEA = 0.063.

For both models, factor loadings and construct reliability (C.R) were greater than 0.6 and 0.8 respectively, Cronbach's alpha (α) for each measured variable was above 0.8, suggesting adequate reliability (Hair et al., 2014) across both models. Average variance extracted (AVE) was above 0.7 for the co-destruction model and 0.6 for the co-creation model. There were no convergent validity issues with the models (Table 44-45).

Table 44: Convergent validity test (co-destruction model)

	1	2	3	4	5	6	7
Hedonic Benefits	0.918						
Financial Motives	0.604	0.959					
Egoistic Motives	0.678	0.874	0.945				
Revenge Motives	0.542	0.721	0.743	0.922			
Hedonic Motives	0.714	0.760	0.855	0.640	0.954		
Utilitarian Benefits	0.632	0.311	0.326	0.348	0.354	0.875	
Co-destruction	0.641	0.716	0.780	0.725	0.750	0.250	0.993

Table 45: Convergent validity test (co-creation model)

	1	2	3	4	5	6	7
Hedonic Benefits	0.859						
Financial Motives	0.260	0.934					
Egoistic Motives	0.315	0.872	0.892				
Altruistic Motives	0.091	0.609	0.650	0.925			
Hedonic Motives	0.510	0.519	0.614	0.390	0.910		
Utilitarian Benefits	0.778	0.155	0.199	0.130	0.386	0.829	
Co-creation	0.482	0.138	0.120	0.182	0.388	0.602	0.952

Structural equation modelling was employed to test hypotheses H1-H9 related to co-destruction and co-creation (Tables 46-47).

Table 46: Statistical results of hypotheses test: structural equation model (co-destruction)

Hypotheses	Path			Coef	(t-test)
H4.1a	Financial Motives	→	Co-Destruction	0.031	0.462^{ns}
H4.2	Revenge Motives	→	Co-Destruction	0.320	6.452^{***}
H4.4a	Egoistic Motives	→	Co-Destruction	0.262	2.710^{**}
H4.5a	Hedonic Motives	→	Co-Destruction	0.305	4.751^{***}
H4.6a	Co-Destruction	→	Utilitarian Benefits	0.271	5.247^{***}
H4.7a	Co-Destruction	→	Hedonic Benefits	0.654	13.549^{***}

Model fit: χ2 (539) = 1642.075, CMIN/DF = 3.041, GFI = 0.804, AGFI = 0.771, CFI = 0.944, RMSEA = 0.075
Significant at p: ns ≥ 0.05; ∗ < 0.05; ∗∗ < 0.01; ∗∗∗ < 0.001

Table 47: Statistical results of hypotheses test: structural equation model (co-creation)

Hypotheses	Path			Coef	(t-test)
H4.1b	Financial Motives	→	Co-Creation	0.129	0.989^{ns}
H4.3	Altruistic Motive	→	Co-Creation	0.158	2.292^{*}
H4.4b	Egoistic Motives	→	Co-Creation	-0.421	-2.700^{**}
H4.5b	Hedonic Motives	→	Co-Creation	0.545	7.609^{***}
H4.6b	Co-Creation	→	Utilitarian Benefits	0.636	12.024^{***}
H4.7b	Co-Creation	→	Hedonic Benefits	0.523	9.434^{***}

Model fit: χ2 (506) = 1523.459, CMIN/DF = 3.011, GFI = 0.815, AGFI = 0.782, CFI = 0.927, RMSEA = 0.072
Significant at p: ns ≥ 0.05; ∗ < 0.05; ∗∗ < 0.01; ∗∗∗ < 0.001

Both models satisfied the model fit criteria. The majority of the hypotheses were supported, except for financial motives and co-creation & co-destruction and egoistic motives and co-creation. For the co-destruction model, all the motivation effects except financial motives were statistically supported. Financial motives showed a positive, but non-significant, relationship with co-destruction. For the co-creation model, all results were significant and in the hypothesised direction, apart from financial motives, which was not significant, and egoistic motives, which was significant but in the opposite direction.

Chapter 7. Discussion

This work has sought to extend current knowledge on consumer co-destruction and co-creation behaviour by identifying the factors innate to consumers which determine their decisions during interactions with firms. Whilst various value dimensions are being co-created and co-destroyed during interactions (Stieler et al., 2014), this work focuses on value dimensions being co-created or co-destroyed for the firm. Two preliminary studies were conducted to determine the groups of values and personality types likely to facilitate co-destruction and co-creation behaviour. The identified value types and traits were subsequently tested in a third study to determine how both value types and traits influence consumer choices in five scenarios. A fourth study tested the intrinsic and extrinsic motivations which facilitate co-destruction/co-creation and determined their influence on the benefits sought by consumers.

The results offer evidence of the relationships between value co-destruction/co-creation behaviour and groups of values, personality traits and a range of motivations. Whilst groups of values contribute to behaviour (Bardi and Schwartz, 2003), individual values contribute to choice (Feather, 1995). The results also show that both individual basic values and personality traits influence consumer co-destruction/co-creation choice and both values and traits, when combined, show improved prediction of consumer co-destruction/co-creation choice. Beyond both values and traits, the results also show that a range of intrinsic and extrinsic motivations facilitate consumer co-destruction\co-creation behaviour.

7.1. Basic Human Values, Personality Traits & Co-destruction/Co-creation Behaviour

This section discusses the results of study 1 & 2, which focused on determining the groups of values and personality traits which are more likely to facilitate value co-destruction behaviour and how these groups of values and personality traits compare to those that are likely to facilitate value co-creation. Sub section 7.1.1 discusses the relationship between groups of values and co-destruction/co-creation behaviour while sub section 7.1.2 discusses the relationship between personality traits and co-destruction/co-creation behaviour. Sub section 7.1.3 touches on the possible effect of norms on the expression of both personal values and personality traits.

7.1.1 Co-destruction/Co-creation Facilitating Values

Self-Enhancement & Openness to Change Higher-Order Values (SE+OC): The results show that SE+OC higher-order values, when grouped, better correlate and show a greater effect on the subversion and defiance dimensions of co-destruction in comparison to self-transcendence & conservation higher-order values (ST+C). People who exhibit self-enhancement values tend to focus more on their own self and well-being as opposed to that of others around them. People who exhibit openness-to-change values are willing to try new things out and are usually in need of constant stimulation (Schwartz, 1992b, Parks and Guay, 2009). The higher correlation and effect of co-destruction subversion and defiance dimensions show that these values, when exhibited, are more likely to facilitate value co-destruction. Individuals with these values are less likely to share information or act responsibly during interactions, ultimately leading to weaker personal interactions with firms (Yi et al., 2011, Vafeas et al., 2016). SE+OC values were also highlighted by Schwartz et al. (2012) as values with a personal focus and a lack of concern for the wellbeing of others. They are thus better at predicting co-destruction behaviour. These values also showed a higher relationship with and effect on co-destruction subversion dimensions, reflecting the higher likelihood that these individuals will not always go the extra mile in co-creating value with the firm beyond what is necessary.

Self-Transcendence & Conservation Higher-Order values: The results also show that ST+C higher-order values, when grouped, better correlate and show a greater effect on the citizenship and participation dimensions of co-creation in comparison to SE+OC higher-order values. Self-transcendence values are values which emphasise the acceptance of others and the concern for their welfare before one's own self, while conservation values are values which emphasise the preservation of traditional practices, self-restriction and the protection of stability (Schwartz, 1992b). The higher correlation and effect of co-creation citizenship and participation dimensions show that these values, when exhibited, are more likely to facilitate value co-creation. Individuals with these values are more likely to demonstrate co-creative practices such as informing, connecting and recommending (Echeverri and Skalen, 2011, Carù and Cova, 2015, Camilleri and Neuhofer, 2017) during interactions, ultimately leading to better interactions with firms. The results also show a higher effect and correlation with the feedback and advocacy dimensions of citizenship behaviour. The ST+C values are therefore more likely to facilitate co-creation beyond the required interaction between firms and consumers.

7.1.2 Co-destruction/Co-creation Facilitating Traits

Extraversion Traits: Typically associated with gregariousness (McCrae and Costa Jr, 1999), being active, outgoing, talkative and energetic, extraversion showed stronger and positive relationships with co-creation dimensions in comparison to its weak and positive relationships with co-destruction. Relatively higher relationships with information seeking, information sharing, feedback and advocacy dimensions are reflective of extraverted behaviours. Individuals high on this trait are therefore more likely to co-create value for the firm by ensuring they are aware of the information available to facilitate co-creation and also by making information available to facilitate interactions. Extraverted consumers, with their assertive and talkative nature (McCrae and John, 1992, Parks-Leduc et al., 2015), will engage with the firm (Itani et al., 2020) and ensure they co-create value by giving feedback and providing support for the firm by promoting its services and products beyond interaction.

Openness to Experience Traits: Openness to experience traits, like extraversion, showed stronger positive relationships with co-creation in comparison to openness to experience's weak and positive relationship with co-destruction. Openness to experience, associated with being curious, intellectual, imaginative, open-minded and sensitive (Roccas et al., 2002), showed significant positive relationships with the opposition and intolerance dimensions of co-destruction. Thus, whilst interacting with firms, the curious nature of open consumers will deter them from tolerating service failures. They are also likely to speak out against the firm and indulge in negative word of mouth or demonstrate aggressive behaviours (Barlett and Anderson, 2012) following a negative encounter with the firm. Interestingly, consumers high on openness traits will also indulge in positive word of mouth following a positive encounter with the firm. The results show that openness traits have the highest correlations with co-creation dimensions across all five traits. This makes consumers high on this trait the most likely consumers to co-create value during interactions. This does not mean, however, they will not co-destroy value since co-creation and co-destruction are not necessarily opposites (Stieler et al., 2014). The results also show a positive relationship between responsible behaviour and openness traits. This contrasts with the results presented by Dollinger et al. (1996), who found negative correlations between openness traits and being responsible.

Agreeableness Traits: Agreeableness and conscientiousness are the two traits which are least likely to facilitate the co-destruction of value, as shown in the results. This does not mean, however, that they are the most likely to co-create value. Agreeableness traits,

characterised by their compliance, forgiving attitudes, belief in cooperation and inoffensive language reputation (McCrae and Costa Jr, 1999) showed strong negative relationships with co-destruction dimensions and moderate to high positive relationships with co-creation dimensions. Whilst interacting with firms, the forgiving nature of agreeable individuals deters them from co-destroying value. Agreeable consumers are therefore not likely to co-destroy value online by ignoring or withholding information, acting irresponsibly and giving negative feedback.

Conscientiousness Traits: Conscientious consumers, characterised by their reliable, responsible, planful and efficient nature (McCrae and John, 1992), showed strong negative relationships with co-destruction dimensions and moderate positive relationships with co-creation dimensions. Consumers high on conscientiousness traits are also not likely to co-destroy value. Specifically, individuals low on this trait are the individuals least likely to co-destroy value when interacting with firms. With regards to co-creation, both agreeableness and conscientiousness traits show moderate to high relationships with advocacy, personal interaction and responsible behaviour dimensions. Conscientious consumers are the most likely to build good relationships to ensure good personal interaction, followed by agreeable individuals. Agreeable consumers show higher relations to the responsible behaviour dimension, however, and are thus more likely to act responsibly at some point during interactions.

Neuroticism Traits: Neurotic consumers are characterised by their anxious, nervous, sad and tense nature (Roccas et al., 2002, John and Srivastava, 1999). They often express various moods and are typically unstable (McCrae and John, 1992). Neurotic traits show the highest positive relationship with value co-destruction and are the most likely to co-destroy value across all touchpoints when interacting with firms. They show moderate to high levels of irresponsible behaviour, withholding information and impersonal interactions. When their expectations are not met or when they feel let down by the firm, they are very likely to indulge in negative word of mouth and they are not likely to share their resources to help others. The extent to which a consumer is neurotic also shows a lower likelihood of co-creating value. Thus, when neurotic consumer expectations are met, they are still not likely to indulge in positive word of mouth. They are also the most likely to act irresponsibly and not to build good personal interactions.

7.1.3 Possible Effect of Norms on Expression of Co-destruction Facilitating Values & Traits

The direction of the effect and relationship between SE+OC values and ST+C values differ when value is being co-destroyed and when it is being co-created. When value is being co-created, both SE+OC values and ST+C values showed positive effects and relationships with co-creation dimensions. The positive relationship to and effect of SE+OC values on the co-creation dimensions show that consumers with these values will still co-create value but this is not as likely as those with ST+C values. This could be due to social influence. Values are prone to social influence (Bardi and Schwartz, 2003) and consumers may conform with norms even when the normative behaviour opposes their own values. During interactions with firms, consumers are expected to exhibit behaviours which co-create value. Whilst these behaviours may conflict with the consumer's values, consumers may conform to these behaviours due to the influence of friends, society and significant others. Consumers with SE+OC values will therefore co-create value but not to the extent which consumers with ST+C values will co-create value.

When value is being co-destroyed, SE+OC values showed positive effects and relationships with co-destruction dimensions while ST+C values showed negative effects and relationships with co-destruction dimensions. The negative relationship to and effect of ST+C values on co-destruction dimensions suggests that consumers with these values are not likely to destroy value during interactions. Society typically does not expect consumers to co-destroy value; thus consumers with ST+C values are not under any pressure to conform. These individuals are therefore not likely to destroy value even when their expectations are not met by the firm.

Whilst neuroticism was the only trait showing a negative relationship with co-creation, neuroticism, like all the other five traits, shows a positive effect on co-creation. The positive effect neuroticism had on co-creation was contrary to the hypothesised direction. When compared to the effects of the 5 traits on co-destruction, all traits showed effects in the hypothesised direction. Conscientiousness and agreeableness both show negative effects with co-destruction, while neuroticism, extraversion and openness all show positive effects on co-destruction. This suggests that neurotic consumers will co-create value to a large extent during interactions. This is possibly due to the norms and behaviours expected by them within society. Conscientiousness and agreeableness still show negative effects on co-destruction, however, because co-destructive behaviour is not expected within the society and

during interactions. This suggests that norms (societal, subjective or group) could be a moderating factor when it comes to the co-creation and co-destruction of value. The expression of certain traits may be moderated due to the expectations of the society, their peers or significant others.

7.2. Basic Human Values, Personality Traits & Co-destruction/Co-creation Choice

Following the division of values into groups and the identification of traits which facilitate co-destruction/co-creation, the results of the third study show evidence of relationships between specific value types, personality traits and choice. These results are consistent with those of Feather (1995) and Roccas et al. (2002). Beyond correlations between values, traits and choices, the results show stronger and more significant correlations between value types and co-destructive choice alternatives in comparison to value types and co-creative choice alternatives. This could imply a more cognitive nature for co-destructive behaviour in comparison to co-creative behaviour. This distinction was not observed between traits which were expected to correlate with co-destructive choices and traits expected to correlate with co-creative choices. Values have been found to support more cognitive actions in comparison to traits (Roccas et al., 2002), hence whilst consumer choices can be cognitive or spontaneous, co-destructive choices might require a higher level of cognition in comparison to co-creative choices.

Values and traits contributed significantly to the prediction of choice. Both values and traits explain different aspects of a consumer's personality (Caprara et al., 2006) and both explained different percentages of the variance in co-creation/co-destruction choice. In the purchase and community scenarios, values explained a higher variance of consumer co-creation/co-destruction choice while in the virtual community and vacation scenario, traits explained a higher variance of consumer co-creation/co-destruction choice. In both scenarios where traits showed a higher explanation of choice, this, however, did not lead to higher correct classifications in comparison to classifications shown by values. This implies that traits are not necessarily better at predicting the co-creation/co-destruction choice when compared to values.

The results also show that both values and traits, when combined, show a higher prediction of the co-creation/co-destruction choice. Across the four significant scenarios, the model including the combination of both values and traits improved the intercept model in three

scenarios (purchase, community & virtual community). In the fourth significant scenario (vacation), the model combining both values and traits did not improve the intercept model. In the vacation scenario, however, the model including values alone and the model including traits alone did not show a higher classification of choice either.

7.3. Consumer Motivations and Benefits of Value Co-destruction

Motivation: During interactions with firms, when consumers are confronted with value co-creating and value co-destructive options, the choice the consumer makes will reflect their values and traits. Excluding the non-significant scenario (work scenario) both values and traits combined explain only about 19.4% to 33.8% of the variance in the consumer's choice. This implies that many other variables contribute to the consumer's co-creation/co-destruction choice. Beyond both values and traits, consumers could also choose to co-destroy value because they are motivated to (Hou et al., 2011) or because they are seeking various benefits. These motivations could either be intrinsic, extrinsic or a combination of intrinsic and extrinsic motives (Ryan and Connell, 1989, Füller, 2010). In situations where value is co-destroyed, the results confirm that both intrinsic and extrinsic motives could drive consumers to act adversely towards firms. This suggests that consumers destroy value for both external/ instrumental reasons and internal/terminal reasons. Revenge motives showed the strongest relationship with co-destruction. This shows that consumers often co-destroy value in order to get back at the firm. Revenge refers to a customer's desire to attain vengeance over a firm or the firm's employees (Daunt and Harris, 2012b). It is an action taken in return for an injury or offence (Funches et al., 2009) and is often done with a view to getting even with an organisation. Thus, when a firm makes a value proposition and it does not meet the customer's expectations or when consumers interact with firms and get the feeling of a loss of invested resources (Smith, 2013), consumers can react in various ways to get back on the firm. In situations where consumers are motivated by revenge, the firm's value proposition is deemed less than ideal by the customer and thus value is destroyed for the customer, and the customer, in turn, decides to retaliate by destroying value for the firm. This exemplifies the two-stage process to value co-destruction, which involves the firm in the first stage and the consumer in the second, ultimately leading to value destruction for both parties. Firm actions and propositions therefore significantly influence consumer decisions to seek revenge.

This, however, is not the case with other identified motives (hedonic and egoistic motives). Consumers driven by hedonic/terminal motives destroy value for the firm through activities

which are pleasurable to themselves without aiming to achieve any goals. Value is destroyed for hedonic motives irrespective of the firm's value proposition or the consumer's interpretation of the firm's proposition. Unlike revenge motives, which imply a two-step process to value destruction, hedonic motives imply a single-step process to value destruction, where consumers for their self-pleasure choose to destroy value for the firm. A dimension of value is created for the consumer, while another dimension (depending on the consumer's actions) is destroyed for the firm. The results also show that consumers co-create value for hedonic motives. Egoistic motives, which have both an internal and external locus of causality (Daunt and Harris, 2012b), also show significant positive relationships with co-destruction. Situations where the locus of causality is internal and consumers destroy value to enhance self-worth reflect a single-step process to value destruction which originates from the consumer and destroys value for the firm. In situations where value is destroyed to boost egos amongst others/peers with a view to earning their respect, the locus of causality shifts from in between the dyad of the consumers and the firm to within the consumer's sphere. Contrary to the suggestions by previous authors, this study did not find any positive relationship with egoistic motives and co-creation.

Evidence of positive relationships between value co-creation and altruistic motives was also found. These results were consistent with the results presented by (Hennig-Thurau et al., 2004, Oreg and Nov, 2008, Füller, 2006), where altruistic motives were found to drive contributions to firm initiatives. Finally, despite the study showing positive relationships of value co-creation driven by financial motives, consistent with the claims of (Füller, 2006), this result was not significant. Similarly, evidence of value co-destruction driven by financial motives was not supported either, due to the non-significance of the result.

Benefits: Consumers co-destroy/co-create value for both hedonic and utilitarian benefits. This work provides evidence of the benefits sought by consumers when co-destroying or co-creating value during interactions with firms and shows significant positive relationships between both co-destruction and co-creation and utilitarian and hedonic benefits. Co-destruction shows a stronger positive relationship with hedonic benefits in comparison to utilitarian benefits. This indicates that, during interactions, value is more likely to be destroyed for the firm by consumers for experiential purposes. Consumers who co-destroy value for hedonic reasons act primarily for sensory and experiential satisfaction and are concerned with experiencing fun, amusement, fantasy, and sensory stimulation (Babin et al., 1994). This category of consumers do not destroy value out of a genuine loss of resources or

unmet expectations. This contrasts with consumers who destroy value for utilitarian reasons. Consumers who co-destroy value for utilitarian benefits are in pursuit of an outcome and are satisfied only when the task at hand has been accomplished (Davis et al., 2013). In contrast to hedonic outcomes, which are affectively driven (Botti and McGill, 2010), utilitarian benefits are cognitively driven, therefore consumers who destroy value for utilitarian needs destroy value out of a genuine loss of resources or unmet expectations. To these consumers, the cognitive decision to destroy value is out of a lack of satisfaction and their actions are often a form of coping behaviour (Smith, 2013) to regain lost resources. In contrast, co-creation shows fairly equal relationships with both hedonic and utilitarian benefits, suggesting that consumers are almost equally likely to co-create value either for self pleasure or with a view to enacting a change.

7.4. Overarching Discussion and Findings

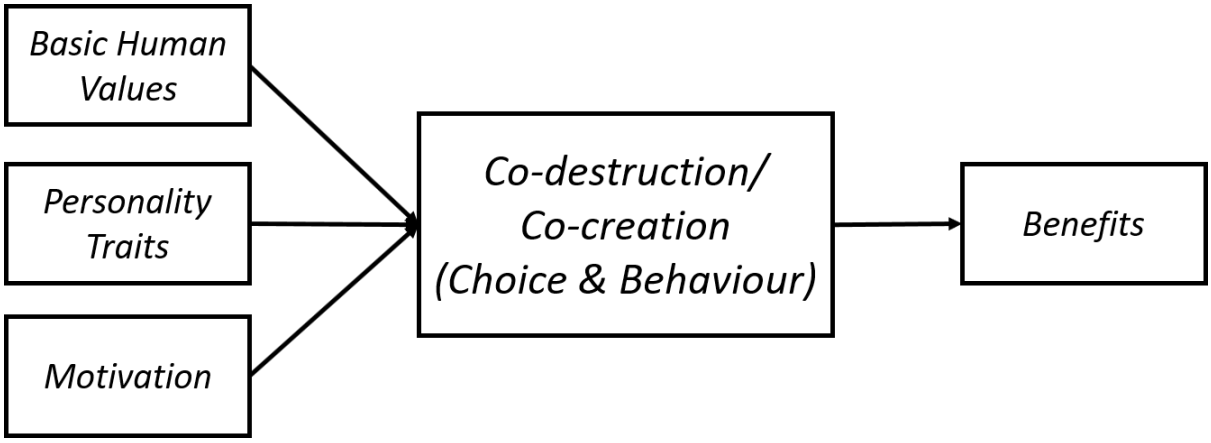
The subjective nature of value and the fact that it is peculiar to the beneficiary under the SD logic makes it more difficult to determine where value is created and where it is destroyed in comparison to under the GD logic. Whilst the GD logic associates the firm with value creation and the consumer with value destruction, the SD logic implicates both parties (firm and consumer) as co-creators and co-destructors. The difficulty in determining where value is created and destroyed under the SD logic and the positive connotations associated with value led to a mostly one-sided focus on value co-creation within the marketing literature (Plé and Cáceres, 2010). This work has sought to bridge this gap by studying interactive value co-destruction during interactions between firms and consumers.

This work focused on the firm as the beneficiary and thus focused on understanding ways in which the consumer's actions can lead to the co-destruction of value for the firm. The overarching question 'Why do consumers engage in value co-destruction?' was answered by studying factors innate to consumers which influence their behaviour and choices during interactions with firms. During interactions between firms and consumers, multiple dimensions of value are being co-created (Stieler et al., 2014) and multiple dimensions can be co-destroyed. Firm processes are designed to ensure certain value dimensions are co-created for the firm and the consumer. To ensure these value dimensions are co-created, firms expect consumers to behave in certain ways. The failure of consumers to exhibit these expected behaviours or their exhibiting other adverse behaviours will result in the mis-integration of resources. This mis-integration could lead to the co-destruction of one or more dimensions of

value (for the purpose of this work, dimensions which the firm expects to be co-created) and could lead to the co-creation of other dimensions (dimensions which consumers could derive satisfaction from). Behaviours identified by Yi and Gong (2013) and encapsulated in both citizenship and participation dimensions when exhibited by consumers during interactions with firms result in value co-creation for both or either the firm or consumer. These behaviours reflect the behaviours firms expect of their consumers during interaction (participation behaviour) or beyond interaction (citizenship behaviour). When consumers choose not to, or decide to, exhibit behaviours contrary to those expected by the firm during interaction (defiance behaviour) and beyond interaction (subversion behaviour) value is not co-created or could be co-destroyed.

In line with the objectives of this study, basic human values, personality traits and motivation, factors innate to consumers which influence their behaviour and choices, were identified and tested to determine their effects on co-destruction/co-creation behaviour. Benefits, a factor which consumers seek during interactions, were also tested. The identified factors (Figure 15) were tested in four studies to determine their influence on consumer actions during interactions with firms. The first study was designed to address the first objective of this work, which is to determine how human values influence consumer decisions to co-destroy value. The second study addresses the second objective of this work, which is to understand how personality traits influence consumer co-destruction behaviour. The third study builds on the first and second studies to shed more light on how values and traits influence consumer co-destruction/co-creation choices in typical scenarios where consumers and firms interact. The fourth sought to address the third objective of this work and focused on determining how consumer motivations influence their co-destruction/co-creation behaviour and how co-destruction/co-creation influences the benefits consumers seek during interactions.

Figure 15: Overarching Model



To address the first objective of this work, which is to determine how human values influence consumer decisions to co-destroy value, this work utlised the Schwartz (1992a) circumplex structure due to its classification of values into groups and the conflicting nature of the values. Self-enhancement and openness to change values are values with a personal focus and consumers expressing these values are more likely to consider their own needs over those of the firm during interactions (Schwartz et al., 2012). Self-trancendence and conservation values are values with a social focus and consumers expressing these values are more likely to put the needs of others before theirs during interactions (Schwartz et al., 2012). Moreover, since most behaviours can express more than one value (Bardi and Schwartz, 2003), this work sought to determine which group of values are more likely to facilite co-destruction behaviours and those which are more likely to facilitate co-creation behaviours. This work finds that co-destruction behaviour is better predicted by any combination of self-enhancement and openness to change values (self-direction, stimulation hedonism, achievement and power value types), while co-creation behaviour is better predicted by any combination of self-trancendence and conservation values (security, tradition, benevolence and universalism value types). Whilst it is not likely that all co-destruction predicting values will be found in any individual, the higher the number of self-enhancement and openness to change values found in an individual, the more likely the individual is to co-destroy value. This can also be said for the number of co-creation predicting values found in an individual. Since individuals naturally act in line with their values (Bardi and Schwartz, 2003), individuals expressing their co-destruction or co-creation predicting values during interactions can unwittingly co-destroy or co-create value respectively during interactions.

Following the identification of groups of values more likely to facilitate co-destruction and those more likely to facilitate co-creation, personality traits likely to facilitate co-creation/co-destruction were also determined, addressing the second objective of this work. Both values and traits have been offered as explanations for different aspects of a consumers behaviour (Caprara et al., 2006) This work therefore sought to understand both values and traits to give an encompassing view of co-creation and co-destruction behaviours. To determine the effect of personality traits on consumer co-destruction/co-creation behaviour, this work utilised the five-factor model (McCrae and Costa, 1990). The aggregation of personality into five broad categories represents the extent to which consumers express a polar dimension of each of the 5 traits at the expense of its opposite dimension. The conflicting nature of polar dimensions of each personality trait makes them suitable to study co-destruction/co-creation. This work finds that whilst co-destruction behaviour is better predicted by neuroticism, extroversion and openness traits and least predicted by conscientiousness and agreeableness traits, all five traits predict co-creation to differing levels. The extent to which a consumer will co-destroy or co-create value will therefore depend on the level of expression of each of the traits within the consumer. Consumers high on extroversion, neuroticism and openness are more likely to destroy value in comparison to consumers high on conscientiousness and agreeableness traits. Since co-creation and co-destruction are not necessarily opposites (Stieler et al., 2014), consumers high on extroversion and openness are also the most likely to co-create value. Although consumers high on conscientiousness and agreeableness are the least likely to destroy value, they are also the least likely to co-create value.

Beyond the individual facilitation of co-destruction and co-creation by values or traits, this work also sought to determine if values or traits are better predictors of consumer co-destruction/co-creation choices. Using five scenarios in which consumers typically interact with firms, a work scenario (to reflect interactions at work), a purchase scenario (to reflect interactions with the firm's products), a virtual community scenario (to capture interactions which occur over the internet), a community scenario (to reflect interactions in the local community) and a vacation scenario (which reflects touch points consumers could have with firms when on vacation), this work shows that both values and traits explain differing percentages of the variance in consumers co-creation/co-destruction choice. In the purchase and community scenarios, values showed higher explanation of the variance in co-destruction/co-creation choice in comparison to traits, while in the virtual community and vacation scenarios, traits showed higher explanation of the variance in co-destruction/co-

creation choice in comparison to values. In scenarios where traits showed higher explanation of variance in comparison to values, these scenarios did not show improved classification of co-destruction/co-creation choice when compared to values. Traits are therefore not necessarily better at classifying co-destruction/co-creation choice when compared to values. The suitability of either traits or values as predictors of co-destruction/co-creation choice also differs depending on whether the choice behaviour is spontaneous/impulsive or cognitive/intentional. The results show that there were stronger correlations between value types and co-destructive choice alternatives in comparison to value types and co-creative choice alternatives, a distinction which was not observed between traits and co-destructive/co-creative choice alternatives. The degree to which a behaviour is spontaneous/impulsive or under cognitive/intentional control determines the strength of values or traits as predictors of that behaviour (Roccas et al., 2002). Values are better predictors of behaviours which individuals exhibit more control over, while traits are better predictors of behaviours which are more spontaneous. With values being better predictors of cognitive choices and co-destructive choices showing stronger correlations with values in comparison to traits, this implies that co-destructive behaviour could be more cognitive in nature in comparison to co-creative behaviour. This distinction was not observed between traits which were expected to correlate with co-destructive choices and traits expected to correlate with co-creative choices.

The more cognitive nature of co-destructive choices could also be explained by their deviation from societal norms. During interactions between firms and consumers, normative behaviour is the behaviour firms expect consumers to exhibit during interactions to facilitate value co-creation. This behaviour is often generally accepted within the society. A consumer's decision to deviate from normative/expected behaviour is likely to require more thought/consideration by the consumer if the action is destructive in nature and is not accepted within the society. Consumers will therefore have to draw on cognition before acting when co-destroying value. Knowing that a behaviour is different to the normative behaviour could also mean the consumer may choose not to express co-destructive behaviours, despite his/her expectations not being met during interactions. This work shows that consumers expressing values and traits which facilitate co-destruction are still likely to co-create value during interactions. This reflects the likely influence of societal norms on behaviour, reducing the expression of co-destructive values and traits during interactions. In contrast, consumers expressing values and traits which facilitate co-creation exhibit

behaviours which align with those expected by the firm during interactions. Consumers who express values and traits which facilitate co-creation are therefore not under any pressure to express co-destrutive behaviours during interactions since their behaviours are generally accepted within the society.

To shed more light on other factors which could be responsible for consumer co-destruction/co-creation behaviours and to address the third objective of this work, a range of intrinsic and extrinsic motives which facilitate consumer co-destruction of value were identified. Revenge, hedonic and egoistic motives were found to facilitate consumer co-destruction of value. These three motives represent consumer motives with an external locus of causality (revenge motives), an internal locus of causality (hedonic motives), and one which could have both an internal or external locus of causality (egoistic motives). Consumers are motivated to seek revenge as a result of less than ideal experiences or loss of resources during interactions with firms. This results in a need to 'get back' at the firm by the consumer as a way of recouping lost resources (Smith, 2013). Revenge motives showed the strongest relationship with co-destruction among all the motives tested in this work. This shows the desire to regain lost resources or 'get even' is a strong motivator to co-destroy value. This aligns with the findings from Smith (2013)'s work, which highlights the consumers' willingness to invest more resources to regain lost resources. In situations where consumers cannot regain lost resources following a less than ideal interaction, consumers could seek revenge as a way to feel even and to get back at the firm. Hedonic and egoistic motives, unlike revenge motives, are not a reaction to actions by the firm nor are they evoked by less than ideal interactions with the firm. Consumers who co-destroy value for hedonic reasons do so because the activities are pleasurable to themselves, while consumers who co-destroy value for egoistic purposes do so to either boost their own self worth or boost their image amongst their peers etc. Whilst the relationship between co-destruction and hedonic/egoistic motives is not as strong as the relationship between co-destruction and revenge motives, co-destroying value for hedonic and egoistic purposes none the less highlight the immense potential for co-destruction during interactions. This is because both hedonic and egoistic motives are evoked irrespective of the firm's value proposition. A firm could live up to the consumers' expectations but still have to deal with negative actions by consumers motivated by hedonic and egoistic motives. In the consumer's quest to create a value dimension for him/herself, the consumer could potentially destroy value for the firm or other parties during interactions.

In addition to the innate factors which could influence consumer co-destruction and co-creation behaviour, this work also provides evidence of the benefits sought by consumers when co-destroying or co-creating value during interactions with firms. Consumers co-destroy/co-create value for both utilitarian and hedonic benefits. Consumers who co-destroy/co-create value for utilitarian purposes act with a view to achieving a specific outcome, while those who co-destroy/co-create value for hedonic purposes only do so for experiential purposes. This work shows that when it comes to co-creation, consumers are equally likely to co-create value for both hedonic and utilitarian benefits. With regards to co-destruction, consumers are more likely to co-destroy value for hedonic benefits as opposed to utilitarian benefits. The stronger positive relationship between co-destruction and hedonic benefits in comparison to utilitarian benefits indicates that, during interactions, value is more likely to be destroyed for the firm by consumers for experiential purposes. This again highlights the immense potential for co-destruction by consumers and makes the case for more focus on co-destruction within the literature.

Chapter 8. Conclusions and Contributions

This work sought to extend the current understanding of consumer co-destruction/co-creation behaviour by shedding more light on the determinants of consumer behaviour during interactions with firms. Co-destruction and co-creation of value are both likely outcomes of interactions between firms and consumers. Whilst firms have behaviours expected of consumers during and beyond face-to-face interactions to ensure the successful co-creation of value (Yi and Gong, 2013), consumers could exhibit adverse behaviours which result in value co-destruction. This work has found that self-enhancement and openness to change value types both show higher prediction and correlation with co-destruction behaviour in comparison to self-transcendence and conservation value types. Consumers with a higher number of both self-enhancement and openness to change value types are therefore more likely to destroy value during interactions. Self-transcendence and conservation value types show higher prediction and correlation with co-creation behaviour in comparison to self-enhancement and openness to change value types. Individuals with a higher number of self-transcendence and conservation value types are more likely to co-create during interactions. This research, therefore, extends the circumplex structure of the basic human values by going beyond Schwartz et al. (2012)'s grouping into types which focus on personal versus social outcomes and those that express growth and self-expansion versus those that express self-protection. This work groups values into types which facilitate co-destruction and those which facilitate co-creation. This work also groups traits into types which facilitates co-creation and co-destruction.

With regards to personality traits, this work finds that neurotic consumers are most likely to exhibit behaviours which will co-destroy value for the firm while consumers marked by conscientiousness and agreeableness are those that are least likely to co-destroy value. This research also finds that neurotic consumers are the consumers least likely to co-create value while extroverted and open consumers are most likely to co-create value during interactions. Both conscientious and agreeable consumers, despite their lower likelihood of co-destroying value, are not the most likely candidates for value co-creation. This work finds that neuroticism, extroversion and openness are traits most likely to predict co-destruction, while all traits predict co-creation, highlighting the fact that consumers will express behaviours expected of them during interactions unless their expectations are not met. Consumer behaviours are moderated, possibly by societal, group or subjective norms.

Both values and traits were also found to be predictors of consumer choices in co-destruction/co-creation interactions. Values, however, were stronger predictors of co-destruction in comparison to co-creation, which shows that co-destructive choices require a higher level of cognition in comparison to co-creative choices. Whilst traits contribute to the variance in choice, traits do not necessarily show better classification of choice in comparison to values.

Finally, both intrinsic and extrinsic motivators drive consumers to destroy value for firms. Although revenge, egoistic and hedonic motives were found to facilitate co-destruction, revenge motives showed the strongest relationship with co-destruction. Consumers are therefore most likely to destroy value when they are trying to get back at the firm for lost resources (Smith, 2013) or unmet expectations (Plé and Cáceres, 2010). Whilst consumers co-destroy value for both hedonic and utilitarian benefits, consumers are more likely to co-destroy value for hedonic benefits as opposed to co-destroying value for utilitarian benefits. Utilitarian driven consumers are driven by a genuine lack of satisfaction during a service (Cossío-Silva et al., 2016). This contrasts with consumers who co-destroy value for hedonic purposes, who act solely for enjoyment-related benefits.

8.1. Theoretical Contributions

This work contributes to the literature by focusing on co-destruction of value during interactions between firms and consumers. Co-destruction, unlike co-creation, has not been studied extensively within the literature. This lack of focus has been a result of the positive connotations associated with the term 'value' (Plé and Cáceres, 2010) and the difficulty in identifying where value is destroyed in the SD logic. This work expands the understanding of co-destruction by providing a fitting definition for the term co-destruction and defines co-destruction as *'a value undermining interaction for a service system'.* This definition captures the specificity of value co-destruction to the service system for which value is being created and reflects the encompassing nature of co-destruction as a term which denotes both actions that weaken the existing status of an entity and actions that prevent an entity from realising its full potential.

This work also contributes by providing frameworks which could be used to simultaneously address the co-destruction and co-creation of value. The literature treats co-destruction and co-creation as two separate constructs. This dual treatment has contributed to a difference in focus in terms of publications on co-destruction and on co-creation. Both co-destruction and

co-creation are likely outcomes of every interaction between firms and consumers (Plé and Cáceres, 2010). This work, therefore, provides a BEP (Beneficiaries, Expectations and Promise) framework which could be used to determine when value is co-created or co-destroyed during interactions. The BEP framework identifies whose value is being created (Beneficiary), determines what the expecations of the beneficiary are and if the firm is fulfiling its service promise. Beyond the BEP framework, this work also highlights the use of both the basic human values and big five traits frameworks for the simulatneous detection of value co-destruction and co-creation.

Futhermore, this work contributes to the literature by shedding more light on the potential for co-destruction by providing a better understanding of consumer behaviour and choices as influenced by their values and traits.

Basic Human Values: Values are conceptions of the desirable (Kluckhohn, 1951) and indicate the preferences that individuals have for various environments (Ravlin and Meglino, 1987). Values have been used to explain consumer political choices (Caprara et al., 2006), relationship satisfaction (Leikas et al., 2018) and friendships on social media platforms (Lönnqvist and Itkonen, 2016). This work explains consumer co-creation and co-destruction behaviours using basic human values and contributes to the literature by identifying groups of values which facilitate co-destruction and co-creation behaviour. Based on conflicts and congruities, the ten basic human values identified by Schwartz (1992b) have been grouped to form higher-order dimensions beyond the original classification by Schwartz (1992b) . Schwartz et al. (2012) further grouped the values into values which focus on personal vs social outcomes and those that express growth and self-expansion versus those that express self-protection. This work has contributed to the Schwartz Values Theory by dividing the ten basic values based on their likelihood of facilitating co-destruction or co-creation. Whilst consumers who express co-destruction facilitating values are more likely to co-destroy value in comparison to individuals who express co-creation values, this does not mean that consumers who express co-destruction facilitating values will not co-create value during interactions. This provides futher support for Stieler et al. (2014)'s claim that co-destruction and co-creation are not necessarily opposites.

Big Five Traits: Personality depicts enduring dispositions that cause characteristic patterns of interaction within one's environment (Goldberg, 1993) and the big five organises personality traits into five factors (McCrae and Costa Jr, 1999), which represent the extent to

which consumers express a polar dimension of each of the five traits at the expense of its opposite dimension. Akin to basic human values, the big five traits have been used to explain consumer choices and behaviours (Leikas et al., 2018, Lönnqvist and Itkonen, 2016). This work contributes by categorising the five traits based on their tendencies to co-create or co-destroy value. This work has contributed to the 5-Factor Theory of Personality by showing which specific trait polar opposites facilitate co-destruction and which facilitate co-creation. The extent to which a consumer expresses any particular trait therefore depicts the consumer's likelihood of co-destroying or co-creating value during interactions.

Motivation: Intrinsic and extrinsic motivations or a combination of the two are responsible for human actions (Ryan and Deci, 2000). Co-destruction and co-creation behaviours are therefore driven by underlying intrinsic or extrinsic motives. Within the co-creation literature, a range of co-creation facilitating motivations have been identified (Kennedy and Guzmán, 2016, Laee and Sherry, 2016, Roberts et al., 2014). This work bridges the gap between the co-creation and co-destruction literature by identifying a range of motivations which facilitate co-destruction. This work contributes to the Self-Determination Theory by identifying egoistic, hedonic and revenge motives as determinants of consumer co-destruction behaviour. This work also shows, amongst the identified motives, that revenge motives had the strongest relationship with co-destruction.

8.2. Practical Contributions

Since co-creation was introduced, many firms have adopted the paradigm and subsequently re-engineered their processes to support value co-creation between their employees and their customers. Companies such as Lego and BMW have utilised consumer imput in the development of commercially successful products and services. Firms adopting co-creation expect value to be co-created without an awareness of the downside and knowledge of activities which could result in co-destruction. This work highlights the possibility of co-destruction during interactions between firms and consumers and provides firms with a range of frameworks which could be used to detect and prevent co-destruction.

This work develops frameworks which simultaneously address co-creation and co-destruction and treats both co-creation and co-destruction as likely outcomes of every interaction (Plé and Cáceres, 2010). The BEP framework can help firms determine when their activities tip over from being value co-creating to being value co-destructive. Firms will, therefore, have a caution reference when addressing co-creation and firm employees, agents, suppliers etc, who

do not meet or exceed the firm's service promise, relative to the consumer's expectations, can be cautioned to avoid value co-destruction. This will enable firms to determine which precautionary steps to take to avoid value co-destroying encounters. Firm marketing communication geared towards informing consumers about product features should consider its effect on consumer expectations. Over selling products or exaggerating product features could lead to unmet consumer expectations, which will ultimately lead to co-destruction of value. Managers should ensure, across the value chain, that all information touchpoints between frms and consumers communicate features without exaggeration or deception. Also, managers should ensure any changes in service levels which reduce the firm's ability to deliver on its promise should be communicated to consumers as soon as possible. This will help consumers lower their expectations and eliminate the potential for co-destruction.

Values: With value co-destruction being intentional or unintentional (Plé and Cáceres, 2010), an understanding of how values influence consumer decisions can help firms anticipate consumer actions at various touchpoints. Firms can consider what individuals with specific values will do in different scenarios. Thus, when designing their processes, the likelihood of consumers co-destroying value can be determined if such processes rely on the actions of consumers for the successful co-creation of value dimensions. Firm actions and interactions can also be considered to identify which values they reflect and to see if these firm actions conflict with any of the basic values. The higher the conflicts with self-transcendence and conservation (ST+C) values, the higher the likelihood of value co-destruction during interactions. Managers should consider the potential actions of consumers when designing their touchpoints. Actions of consumers with self-enhancement and openness to change (SE+OC) values could unintentionally co-destroy value during interactions. An understanding of these processes, how they could lead to co-destruction and how they can be managed should be sought by managers. For example, the intentional use of location data generated by cellphones is to improve the user experience. This data could also be used adversely by users seeking to achieve success through unsolicited consumer targeting.

Traits: Similar to values, firms can determine consumer actions at various touchpoints by considering what individuals with specific traits will do in different scenarios. Thus, when firms design their touchpoints, the likelihood of consumers co-destroying value can be

determined if interactions at those touchpoints rely on the actions of consumers for the successful co-creation of value dimensions.

For the firms, an understanding of both traits and values can give them an edge when developing their touchpoints for interactions with consumers. Values and traits are factors innate to consumers and, as shown, they play a significant role in determining their behaviours. Firms can factor in the likelihood of consumers behaving in adverse manners by considering how firm actions and value propositions conflict with consumer values. Firm actions like JP Morgan's announced support for a European Super League in April 2021 (Reuters, 2021), which faced a nationwide backlash and protests, and the company's subsequent apology could have been avoided if the values of the community had been considered.

Motivation: An understanding of consumer motivations which facilitate co-destruction can help firms determine the reasons why consumers are likely to act negatively during interactions. The range of motivations identified (egoistic, revenge and hedonic motives) show that value is co-destroyed for the firm by consumers mainly for revenge motives. Revenge actions are enacted by consumers primarily to get back at the firm in response to firm actions which the consumers deem to be less than ideal. This shows that the desire to get back at the firm is a strong reason why consumers destroy value for firms. Firm managers should, therefore, strive to ensure their actions or the actions of their agents do not result in a loss of resources or unmet expectations for consumers. An understanding of how customers can co-destroy value for firms can guide customer service initiatives in organisations to avoid situations such as the intentional co-destruction of value by consumers on social platforms, where consumers publicly narrated their experience with Angel Airlines in order to get back at the firm (Ariely, 2007). In contrast, to facilitate co-creation, firms should strive to ensure that consumer touchpoints are as useful and enjoyable as possible since consumers are most likely to co-create value for hedonic, experiential purposes.

Benefits: Firms should design their processes to facilitate the identification of consumers taking negative actions towards the firm, especially consumers seeking to make genuine changes. Firms should ensure that these identified cases are dealt with as efficiently as possible. Firms can prevent utilitarian value co-destruction by ensuring that they meet or exceed the consumers' expectations or identify consumers who are exhibiting coping behaviours, identify the changes these consumers are trying to enact and work with the

consumers to ensure that this is corrected to prevent further value co-destruction by other consumers. The co-creation of a service recovery following service failure has been found to be intrinsically gratifying and pleasant for consumers (Park and Ha, 2016) and this could help restore the consumer's trust in the firm.

8.3. Limitations and Future Research

In conducting this research, this work has utilised the Short Schwartz's Value Survey Scale (SVSS) (Lindeman and Verkasalo, 2005) to measure basic human values. The SSVS is a 10-item scale developed as an alternative to the 57-item Schwartz's Value Survey (SVS) (Schwartz, 1992b). Future research should focus on testing with the 57-item SVS scale. Similarly, this work has measured co-destruction by adapting items from the Yi and Gong (2013) co-creation scale. Future research should focus on identifying the dimensions of value co-destruction and developing a scale which measures value co-destruction and differentiates it from value no-creation (Makkonen and Olkkonen, 2017, Sthapit and Björk, 2018).

Whilst this work groups values into types which are more likely to co-destroy and those more likely to co-create value, it makes no claims on individual values and their direct relationships with co-destruction/ co-creation behaviour. Behaviour typically expresses more than one value (Bardi and Schwartz, 2003). Thus, further testing will be needed to identify which specific values or group of values predict specific co-destruction/ co-creation behaviours. Finally, future studies should seek to determine the effects of norms (societal, group, significant others) on the expression of values and traits which facilitate negative behaviours.

In determining consumer choices during interactions, this work has limited the choices consumers have to two in each scenario. There are everyday scenarios where consumers have more than two choices and are faced with tougher choices. Future research should focus on developing scenarios with more options for consumers to determine how their choices are affected. This can also help determine which other factors account for variance in the consumer's co-creation/co-destruction choice. This work has pitched the personally focused category of values as co-destructive and the socially focused category of values as co-creative. Although these apply in the context of co-creation/co-destruction for the firm, there are other contexts where socially-focused values can co-destroy value and personally focused values can co-create value. Future research should focus on testing and identifying such contexts. Also, the developed scenarios were not subject to pretests and manipulation checks

beyond 2 individual assessments and pilot studies (section 5.5.1). Future studies using similar scenarios should ensure proper tests to ensure face validity and suitability.

Finally, the work has also only tested a few motivations to co-destroy value. Future studies should focus on identifying more motivations which could lead to co-destruction.

Appendices

Questionnaire

Increasingly over the past decade, many firms have employed the concept of **co-creation** to engage communities of consumers and other stakeholders in their search for continuous innovation. There have however been instances where instead of value creation, value destruction occurs, leading to the **co-destruction** of value.

Co-creation can be defined as an interactional process between a firm and its customers that results in the creation of value for either the customer, the firm or both the firm and the customer.

Co-destruction can be defined as a process of interaction between a firm and its customer that results in the destruction of value for either the firm, the customer or both the firm and the customer.

The aim of this research is to understand factors which influence consumer decisions to either co-create or co-destroy value.

I would like to invite you to participate in this study by completing this survey. The questions may be of personal nature, be assured that all answers you provide will be kept confidential. All information provided will be used solely for the purpose of this research. It is very important that you provide answers to all questions. Please provide answers that best suit your circumstances. The survey will take approx. 15 minutes.

This research is undertaken by Ola Ogunbodede (Newcastle University). If you have any questions please contact Ola Ogunbodede (o.e.ogunbodede2@newcastle.ac.uk).

Appendix 1. Demographic Questions

First, a few questions about you. Questions in this section include questions about your gender, age, employment status, education etc.

What is your gender?	Male Female
How old are you?	Less than or age 19 20 – 29 30 – 39 40 – 49 50 – 59 Above or age 60
What is your current employment status?	Full time employed Part time employed Out of work (but looking for) Out of work (but not looking for) Homemaker Student Retired Unable to work
What is your ethnicity?	African American Native American USA White Asian American Hispanic American Multiracial Other White Background Other
What is the highest level of education you have completed?	Some high school or less High school graduate or equivalent Vocational/technical school (two year program) Some college, but no degree College graduate (four year program) Some graduate school Graduate degree Professional degree (M.D., J.D., etc.)
Please state your household income bracket (total household income before tax).	$0 - $24,999 $25,000 - $49,999 $50,000 - $74,999 $75,000 - $99,999 More than $100,000

Appendix 2. Co-destruction

Please indicate your agreement or disagreement with each of the items listed below as a representation of your behaviour during or after the **negative** encounter with this firm.

Co-destruction Defiance	Adapted from (Yi and Gong, 2013)
Ignoring Information	I intentionally withheld information from others on what this service offers. I intentionally have not searched for information on where this service is located. I intentionally ignored paying attention to how others behave in order to use this service well.
Withholding Information	I intentionally did not clearly explain what I wanted the employee to do. I intentionally withheld important information from the employee. I intentionally provided unnecessary or did not provide all the information necessary and the employee could not perform his or her duties. I did not answer all the employee's service-related questions.
Irresponsible Behaviour	I intentionally performed only a few or none of the tasks that were required. I inadequately completed all the expected behaviours intentionally. I Intentionally did not fulfil my responsibilities to the business. Intentionally, I did not follow the employee's directives or orders.
Impersonal Interaction	I was not friendly to the employee intentionally. I was unkind to the employee intentionally. I was impolite to the employee intentionally. I was discourteous to the employee intentionally. I intentionally acted rudely to the employee.
Co-destruction Subversion	
Negative Feedback	If I have a useful idea on how to improve service, I intentionally don't let the employee know. Even when I receive good service from the employee, I intentionally complain about it. When I experience a problem, I intentionally don't let the employee know.
Opposition	I intentionally said negative things about this firm and the employee to others. I intentionally dissuade others from this firm and the employee. I intentionally discourage my friends and relatives from using this firm.
Neglecting	I intentionally snub/hinder other customers if they need my help. I intentionally don't help other customers if they seem to have problems. I intentionally teach other customers to use the service incorrectly. I intentionally give incorrect advice to other customers.
Intolerance	If service is not delivered as expected, I would not be willing to put up with it. If the employee makes a mistake during service delivery, I would not be willing to be patient. If I have to wait longer than I normally expected to receive the service, I would not be willing to adapt.

Appendix 3. Motivation (Co-destruction)

Think of a time you had a **negative** experience with a firm's product, service or employee and you felt justified to take **negative** actions towards the firm. This could include complaining, negative feedback, negative word of mouth, etc. On a scale of 1 to 7, rate the extent to which the following items constituted a factor in your decision to act.

I took action...

Financial Motives (Daunt and Harris, 2012b)	To gain some money to gain something for nothing Because I made some money acting this way
Revenge Motives (Daunt and Harris, 2012b)	To teach the firm a lesson To get back at the firm As an act of revenge
Egoistic Motives (Daunt and Harris, 2012b)	to feel good about myself Because other people were with me To impress other people who were around me
Hedonic Motives (Nambisan and Baron, 2009)	Because it was enjoyable and relaxing Because it was fun and pleasurable Because it entertains and stimulates my mind Because I derive enjoyment from it

Appendix 4. Benefits (Co-destruction)

For each of the word pairs below, please select a point between which you believe best describes your action to **destroy** value.

Hedonic Benefits (Voss et al., 2003)	Not fun – Fun Dull – Exciting Not delightful – Delightful Unenjoyable – Enjoyable
Utilitarian Benefits (Voss et al., 2003)	Ineffective - Effective Unhelpful – Helpful Not functional – Functional Not necessary – Necessary Impractical – Practical

Appendix 5. Co-creation

Please indicate your agreement or disagreement with each of the items listed below as a representation of your behaviour during or after the **positive** encounter with this firm.

Co-creation Participation	(Yi and Gong, 2013)
Information Seeking	I have asked others for information on what this service offers. I have searched for information on where this service is located. I have paid attention to how others behave to use this service well.
Information Sharing	I clearly explained what I wanted the employee to do. I gave the employee proper information. I provided necessary information so that the employee could perform his or her duties. I answered all the employee's service-related questions.
Responsible Behaviour	I performed all the tasks that were required. I adequately completed all the expected behaviours. I fulfilled my responsibilities to the business. I followed the employee's directives or orders.
Personal Interaction	I was friendly to the employee. I was kind to the employee. I was polite to the employee. I was courteous to the employee. I didn't act rudely to the employee.
Co-creation – Citizenship	
Feedback	If I have a useful idea on how to improve service, I let the employee know. When I receive good service from the employee, I comment about it. When I experience a problem, I let the employee know about it.
Advocacy	I said positive things about this firm and the employee to others. I recommended this firm and the employee to others. I encouraged my friends and relatives to use this firm.
Helping	I assist other customers if they need my help. I help other customers if they seem to have problems. I teach other customers to use the service correctly. I give advice to other customers.
Tolerance	If service is not delivered as expected, I would be willing to put up with it. If the employee makes a mistake during service delivery, I would be willing to be patient. If I have to wait longer than I normally expected to receive the service, I would be willing to adapt.

Appendix 6. Motivation (Co-creation)

Questions in this section are about understanding motivational and social factors that influence individual decisions to **co-create** value during interactions with firms.

Think of a time you had a **positive** experience with a firm's product, service or employee and you felt justified to take **positive** actions towards the firm. This could include giving positive feedback, positive word of mouth, collaborating with the firm etc. On a scale of 1 to 7, rate the extent to which the following items constituted a factor in your decision to act.

I took action...

Financial Motives (Daunt and Harris, 2012b)	To gain some money to gain something for nothing Because I made some money acting this way
Egoistic Motives (Daunt and Harris, 2012b)	to feel good about myself Because other people were with me To impress other people who were around me
Hedonic Motives (Nambisan and Baron, 2009)	Because it was enjoyable and relaxing Because it was fun and pleasurable Because it entertains and stimulates my mind Because I derive enjoyment from it
Altruistic Motives (Hennig-Thurau et al., 2004)	To warn others of bad products To save others from having the same negative experiences as me To help others with my own negative experiences To give others the opportunity to buy the right product

Appendix 7. Benefits (Co-creation)

For each of the word pairs below, please select a point between which you believe best describes your action to **create** value.

Hedonic Benefits (Voss et al., 2003)	Not fun – Fun Dull – Exciting Not delightful – Delightful Unenjoyable – Enjoyable
Utilitarian Benefits (Voss et al., 2003)	Ineffective - Effective Unhelpful – Helpful Not functional – Functional Not necessary – Necessary Impractical – Practical

Appendix 8. Basic Human Values

Values are guiding principles in our lives and they influence the selection or evaluation of policies, actions and events.

Rate the importance as a life-guiding principle of the following values.

Ranging from 0 (opposed to my principles), 1(not important), 4 (important), to 8 (of supreme importance).

Values (Lindeman and Verkasalo, 2005)	Power (social power, authority, wealth)
	Achievement (success, capability, ambition, influence on people and events)
	Hedonism (gratification of desires, enjoyment in life, self-indulgence)
	Stimulation (daring, a varied and challenging life, an exciting life)
	SelfDirection (creativity, freedom, curiosity, independence, choosing one's own goals)
	Universalism (broadmindedness, beauty of nature and arts, social justice, a world at peace, equality, wisdom, unity with nature, environmental protection)
	Benevolence (helpfulness, honesty, forgiveness, loyalty, responsibility)
	Tradition (respect for tradition, humbleness, accepting one's portion in life, devotion, modesty)
	Conformity (obedience, honoring parents and elders, self-discipline, politeness)
	Security (national security, family security, social order, cleanliness, reciprocation of favors).

Appendix 9. Personality Traits

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please choose a number for each statement to indicate the extent to which you agree or disagree with that statement.

I see myself as someone who ...

Disagree strongly (1), Disagree a little (2), Neither disagree nor agree (3) Agree a little (4) Agree strongly (5)

BIG 5, 44 item Scale (Benet-Martinez and John, 1998)	is talkative
	tends to find fault with others
	does a thorough job
	is depressed, blue
	is original, comes up with new ideas
	is reserved
	is helpful and unselfish with others
	can be somewhat careless
	is relaxed, handles stress well
	is curious about many different things
	is full of energy
	starts quarrels with others
	is a reliable worker
	can be tense
	is ingenious, a deep thinker
	generates a lot of enthusiasm
	has a forgiving nature
	tends to be disorganized
	worries a lot
	has an active imagination
	tends to be quiet
	is generally trusting
	tends to be lazy
	is emotionally stable, not easily upset
	is inventive
	has an assertive personality
	can be cold and aloof
	perseveres until the task is finished
	can be moody
	values artistic, aesthetic experiences
	is sometimes shy, inhibited
	is considerate and kind to almost everyone
	does things efficiently
	remains calm in tense situations
	prefers work that is routine
	is outgoing sociable
	is sometimes rude to others
	makes plans and follows through with them
	gets nervous easily
	likes to reflect, play with ideas

	has few artistic interests
	likes to cooperate with others
	is easily distracted
	is sophisticated in art, music, or literature

Appendix 10. Scenarios

Context	Scenario	Option	Assumed Values	Co-creation/ Co-destruction
Work	On the morning of an important presentation which will determine if your organisation is awarded a multimillion-dollar contract, you stop by to get printed out brochures which are crucial to the success of the presentation. On getting to the printers, you find a queue with a few people and a slow employee. At the rate the employee is working, you will not be able to make it in time for the presentation. An unsuccessful presentation will also cost a big bonus, a promotion and possibly your job. What do you do?	Jump the queue.	Achievement	Co-destruction
		Hold on and wait for your turn.	Universalism	Co-creation
Purchase	After purchasing a new device which you intend to use for demanding tasks, you realise the manufacturer specifically stated guidelines for use which limits its use for certain tasks (yours inclusive). This means you will not be able to use the device to produce results at the rate you need to complete this task. You can, however, make adjustments to the device's specifications to churn out results at your desired rate. What do you do?	Adjust the device and use as you please.	Self-Direction	Co-destruction
		Stick to the manufacturer's guidelines.	Conformity	Co-creation
Virtual Community	Whilst participating in online product development forums, you have been the go-to person for the development of certain modules. These modules are crucial to every contribution and your sole ability to develop them has given you great influence in the community. You have enjoyed the privilege of being able to influence the inclusion of other members on projects. Knowledge of how to develop these modules by other members in the forum will greatly improve their contribution but this will reduce your influence, putting you on par with everyone else. Would you….?	Continue working as the sole module developer.	Power	Co-destruction
		Teach or direct them towards how to build these modules.	Benevolence	Co-creation
Community	Generations of your family have purchased freshly made bread from a	Switch to a new store with	Hedonism	Co-destruction

	specific neighbourhood store. You grew up within this neighbourhood and you are on first name terms with the store owners and attendants. Yourself and your family members also have traditionally helped with referring new neighbours to this store. Recently, however, this store has occasionally sold unfresh day old bread with a slightly noticeable difference in taste. What do you do?	a reputation for fresh bread and tell family members and neighbours about it.		
		Ignore this and continue purchasing from the store.	Tradition	Co-creation
Vacation	While on vacation with your friends, you decide to visit a theme park with giant slides. Whilst these slides were designed to accommodate one individual at a time, jumping in with your friend is more fun. Having two people on the slide at the same time could damage the slide. Your mate is about to jump in and you are behind him. Would you….?	Jump in as soon as he/she jumps in.	Stimulation	Co-destruction
		Wait till he is out on the other side before jumping in.	Security	Co-creation

References

ALI, S. N. & LIN, C. 2013. Why people vote: Ethical motives and social incentives. *American economic Journal: microeconomics,* 5**,** 73-98.

ARIELY, D. 2007. The customers' revenge. *Harvard business review,* 85**,** 31-43+143.

ARMSTRONG, J. S. & OVERTON, T. S. 1977. Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research,* 14**,** 396-402.

ARNDT, J. & CRANE, E. 1975. Response bias, yea-saying, and the double negative. *Journal of Marketing Research,* 12**,** 218-220.

BABIN, B. J., DARDEN, W. R. & GRIFFIN, M. 1994. Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. *Journal of Consumer Research,* 20**,** 644-656.

BAGOZZI, R. P. 1984. A prospectus for theory construction in marketing. *Journal of marketing,* 48**,** 11-29.

BALLANTYNE, D., FROW, P., VAREY, R. J. & PAYNE, A. 2011. Value propositions as communication practice: Taking a wider view. *Industrial Marketing Management,* 40**,** 202-210.

BARDI, A. & SCHWARTZ, S. H. 2003. Values and behavior: strength and structure of relations. *Pers Soc Psychol Bull,* 29**,** 1207-20.

BARLETT, C. P. & ANDERSON, C. A. 2012. Direct and indirect relations between the Big 5 personality traits and aggressive and violent behavior. *Personality and Individual Differences,* 52**,** 870-875.

BARRY, B. & STEWART, G. L. 1997. Composition, process, and performance in self-managed groups: The role of personality. *Journal of Applied psychology,* 82**,** 62.

BARTLETT, J., KOTRLIK, J. & HIGGINS, C. 2001. Organizational research: Determining appropriate sample size in survey research appropriate sample size in survey research. *Information technology, learning, and performance journal,* 19**,** 43.

BATESON, J. 2002. Are your customers good enough for your service business? *The Academy of Management Executive,* 16**,** 110-120.

BATRA, R. & AHTOLA, O. T. 1991. Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing letters,* 2**,** 159-170.

BEARDEN, W. O., HARDESTY, D. M. & ROSE, R. L. 2001. Consumer self-confidence: Refinements in conceptualization and measurement. *Journal of consumer research,* 28**,** 121-134.

BECKER, S. V., AROMAA, E. & ERIKSSON, P. 2015. Client-consultant interaction: the dynamics of and conflicts in value co-creation and co-destruction. *International Journal of Services Technology and Management,* 21**,** 40-54.

BELL, E., BRYMAN, A. & HARLEY, B. 2018. *Business research methods*, Oxford university press.

BENET-MARTINEZ, V. & JOHN, O. P. 1998. Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. *Journal of personality and social psychology,* 75**,** 729.

BERTONI, M., BONFATTI, A., CELIDONI, M., CREMA, A. & DAL BIANCO, C. 2019. 4 Personality traits and financial behaviour. *Health and socio-economic status over the life course: First results from SHARE Waves 6 and 7***,** 49.

BEUGRÉ, C. D. 2005. Reacting aggressively to injustice at work: a cognitive stage model. *Journal of Business and Psychology,* 20**,** 291-301.

BHALLA, G. 2014. How to plan and manage a project to co-create value with stakeholders. *Strategy & Leadership,* 42**,** 19-25.

BHASKAR, R. 2013. *A realist theory of science*, Routledge.

BONSU, S. K. & DARMODY, A. 2008. Co-creating second life: Market-Consumer cooperation in contemporary economy. *Journal of Macromarketing,* 28**,** 355-368.

BOTTI, S. & MCGILL, A. L. 2010. The locus of choice: Personal causality and satisfaction with hedonic and utilitarian decisions. *Journal of Consumer Research,* 37**,** 1065-1078.

BOVE, L. L., PERVAN, S. J., BEATTY, S. E. & SHIU, E. 2009. Service worker role in encouraging customer organizational citizenship behaviors. *Journal of Business Research,* 62**,** 698-705.

BRUCE, C. S. 1994. Research students' early experiences of the dissertation literature review. *Studies in Higher Education,* 19**,** 217-229.
BRYMAN, A. & BELL, E. 2015. *Business research methods*, Oxford University Press, USA.
BUCKLEY, M. R., COTE, J. A. & COMSTOCK, S. M. 1990. Measurement errors in the behavioral sciences: The case of personality/attitude research. *Educational and psychological measurement,* 50**,** 447-474.
CABIDDU, F., MORENO, F. & SEBASTIANO, L. 2019. Toxic Collaborations: Co-Destroying Value in the B2B Context. *Journal of Service Research,* 0**,** 1094670519835311.
ČAIĆ, M., ODEKERKEN-SCHRÖDER, G. & MAHR, D. 2018. Service robots: value co-creation and co-destruction in elderly care networks. *Journal of Service Management,* 29**,** 178-205.
CALLEGARO, M., MANFREDA, K. L. & VEHOVAR, V. 2015. *Web survey methodology*, Sage.
CAMILLERI, J. & NEUHOFER, B. 2017. Value co-creation and co-destruction in the Airbnb sharing economy. *International Journal of Contemporary Hospitality Management,* 29**,** 2322-2340.
CANDI, M., VAN DEN ENDE, J. & GEMSER, G. 2016. Benefits of Customer Codevelopment of New Products: The Moderating Effects of Utilitarian and Hedonic Radicalness. *Journal of Product Innovation Management,* 33**,** 418-434.
CAPARA, G. V., BARBARANELLI, C. & ZIMBARDO, P. G. 1999. Personality profiles and political parties. *Political psychology,* 20**,** 175-197.
CAPRARA, G. V., ALESSANDRI, G. & EISENBERG, N. 2012. Prosociality: The contribution of traits, values, and self-efficacy beliefs. *Journal of personality and social psychology,* 102**,** 1289.
CAPRARA, G. V., SCHWARTZ, S., CAPANNA, C., VECCHIONE, M. & BARBARANELLI, C. 2006. Personality and politics: Values, traits, and political choice. *Political psychology,* 27**,** 1-28.
CARMAN, J. M. 1978. Values and Consumption Patterns: a Closed Loop. *NA - Advances in Consumer Research,* 5**,** 403.
CARÙ, A. & COVA, B. 2015. Co-creating the collective service experience. *Journal of Service Management,* 26**,** 276-294.
CATTELL, R. B., EBER, H. W. & TATSUOKA, M. M. 1970. *Handbook for the sixteen personality factor questionnaire (16 PF): In clinical, educational, industrial, and research psychology, for use with all forms of the test*, Institute for Personality and Ability Testing.
CHATHOTH, P. K., UNGSON, G. R., ALTINAY, L., CHAN, E. S. W., HARRINGTON, R. & OKUMUS, F. 2014. Barriers affecting organisational adoption of higher order customer engagement in tourism service interactions. *Tourism Management,* 42**,** 181-193.
CHAUBEY, A., SAHOO, C. K. & KHATRI, N. 2019. Relationship of transformational leadership with employee creativity and organizational innovation: A study of mediating and moderating influences. *Journal of Strategy and Management*.
CHEUNG, F. Y. M. & TO, W. M. 2015. Do task- and relation-oriented customers co-create a better quality of service?: An empirical study of customer-dominant logic. *Management Decision,* 53**,** 179-197.
CHEUNG, F. Y. M. & TO, W. M. 2016. A customer-dominant logic on service recovery and customer satisfaction. *Management Decision,* 54**,** 2524-2543.
COCHRAN, W. G. 2007. *Sampling techniques*, John Wiley & Sons.
CONSTANTIN, J. & LUSCH, R. 1994. Understanding Resource Management (The Planning Forum, Oxford, OH).
COOPER, H. M. 1998. *Synthesizing research: A guide for literature reviews*, Sage.
CORSARO, D. 2019. Value co-destruction and its effects on value appropriation. *Journal of Marketing Management***,** 1-28.
COSSÍO-SILVA, F.-J., REVILLA-CAMACHO, M.-Á., VEGA-VÁZQUEZ, M. & PALACIOS-FLORENCIO, B. 2016. Value co-creation and customer loyalty. *Journal of Business Research,* 69**,** 1621-1625.
COSTA JR, P. T., MCCRAE, R. R. & KAY, G. G. 1995. Persons, places, and personality: Career assessment using the Revised NEO Personality Inventory. *Journal of Career Assessment,* 3**,** 123-139.

COSTA, P. & MCCRAE, R. R. 2001. A theoretical context for adult temperament. *Temperament in context*, 1-21.
COSTA, P. T. & MCCRAE, R. R. 1998. Trait theories of personality. *Advanced personality.* Springer.
CRESWELL, J. W. 2003. *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publications.
CRESWELL, J. W. 2007. Qualitative inquiry and research design: Choosing among five approaches.
CROWTHER, P. & DONLAN, L. 2011. Value-creation space: The role of events in a service-dominant marketing paradigm. *Journal of Marketing Management,* 27**,** 1444-1463.
CUMMING, G. 2009. Inference by eye: reading the overlap of independent confidence intervals. *Statistics in medicine,* 28**,** 205-220.
CUNHA, M. N. 2019. An investigative study of customers' experience in customized customer contact services in Oporto hotels.
DAUNT, K. L. & HARRIS, L. C. 2012a. Exploring the forms of dysfunctional customer behaviour: A study of differences in servicescape and customer disaffection with service. *Journal of Marketing Management,* 28**,** 129-153.
DAUNT, K. L. & HARRIS, L. C. 2012b. Motives of dysfunctional customer behavior: an empirical study. *Journal of Services Marketing,* 26**,** 293-308.
DAUNT, K. L. & HARRIS, L. C. 2014. Linking employee and customer misbehaviour: The moderating role of past misdemeanours. *Journal of Marketing Management,* 30**,** 221-244.
DAUNT, K. L. & HARRIS, L. C. 2017. Consumer showrooming: Value co-destruction. *Journal of Retailing and Consumer Services,* 38**,** 166-176.
DAVIS, R., LANG, B. & GAUTAM, N. 2013. Modeling utilitarian-hedonic dual mediation (UHDM) in the purchase and use of games. *Internet Research,* 23**,** 229-256.
DE VAUS, D. A. & DE VAUS, D. 2001. *Research design in social research*, Sage.
DECI, E. L. & RYAN, R. M. 2008. Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology/Psychologie canadienne,* 49**,** 182.
DEFILLIPPI, R., RANDALL, BRIAN LEAVY, R. & ROSER, T. 2014. Aligning the co-creation project portfolio with company strategy. *Strategy & Leadership,* 42**,** 30-36.
DHAR, R. & WERTENBROCH, K. 2000. Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research,* 37**,** 60-71.
DOBEWALL, H., AAVIK, T., KONSTABEL, K., SCHWARTZ, S. H. & REALO, A. 2014. A comparison of self-other agreement in personal values versus the Big Five personality traits. *Journal of Research in Personality,* 50**,** 1-10.
DOLAN, R., CONDUIT, J., FAHY, J. & GOODMAN, S. 2016. Social media engagement behaviour: a uses and gratifications perspective. *Journal of Strategic Marketing,* 24**,** 261-277.
DOLAN, R., SEO, Y. & KEMPER, J. 2019. Complaining practices on social media in tourism: A value co-creation and co-destruction perspective. *Tourism Management,* 73**,** 35-45.
DOLLINGER, S. J., LEONG, F. T. & ULICNI, S. K. 1996. On traits and values: With special reference to openness to experience. *Journal of research in Personality,* 30**,** 23-41.
DONG, B., EVANS, K. R. & ZOU, S. 2008. The effects of customer participation in co-created service recovery. *Journal of the academy of marketing science,* 36**,** 123-137.
EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. R. 2012. *Management research*, Sage.
EASTON, G. 2010. Critical realism in case study research. *Industrial marketing management,* 39**,** 118-128.
ECCLES, J. S. & WIGFIELD, A. 2002. Motivational beliefs, values, and goals. *Annual review of psychology,* 53**,** 109-132.
ECHEVERRI, P. & SALOMONSON, N. 2017. Bi-directional and stratified demeanour in value forming service encounter interactions. *Journal of Retailing and Consumer Services*, 93-102.
ECHEVERRI, P. & SKALEN, P. 2011. Co-creation and co-destruction: A practice-theory based study of interactive value formation. *Marketing Theory,* 11**,** 351-373.
ECONOMIST, T. 2006. Business: The Blog in the Corporate Machine; Corporate Reputations

EDWARDS, P. K., O'MAHONEY, J. & VINCENT, S. 2014. *Studying organizations using critical realism: A practical guide*, OUP Oxford.
EKMAN, P., RAGGIO, R. D. & THOMPSON, S. M. 2016. Service network value co-creation: Defining the roles of the generic actor. *Industrial Marketing Management,* 56**,** 51-62.
ENGEL, J. F., BLACKWELL, R. & MINIARD, P. 1990. Customer behavior. *Hinsdale, IL: Dryden*.
ENNEW, C. T. & BINKS, M. R. 1999. Impact of Participative Service Relationships on Quality, Satisfaction and Retention: An Exploratory Study. *Journal of Business Research,* 46**,** 121-132.
ESPERSSON, M. & WESTRUP, U. 2020. Value Destruction in Swedish Welfare Services: Frontline Workers' Impact on Asylum-Seeking Minors' Possibilities of Creating Value in Early Integration. *International Journal of Public Administration,* 43**,** 115-125.
ESPÍRITU-OLMOS, R. & SASTRE-CASTILLO, M. A. 2015. Personality traits versus work values: Comparing psychological theories on entrepreneurial intention. *Journal of Business Research,* 68**,** 1595-1598.
EVANS, J. R. & MATHUR, A. 2005. The value of online surveys. *Internet research,* 15**,** 195-219.
FEATHER, N. T. 1995. Values, valences, and choice - The influence of values on the perceived attractiveness and choice of alternatives..pdf. *Journal of Personality and Social Psychology,* 68**,** 1135-1151.
FEATHER, N. T., NORMAN, M. A. & WORSLEY, A. 1998. Values and Valences: Variables Relating to the Attractiveness and Choice of Food in Different Contexts 1. *Journal of Applied Social Psychology,* 28**,** 639-656.
FERNANDES, T. & REMELHE, P. 2015. How to engage customers in co-creation: customers' motivations for collaborative innovation. *Journal of Strategic Marketing,* 24**,** 311-326.
FIELD, A. 2013. *Discovering statistics using IBM SPSS statistics*, sage.
FINSTERWALDER, J. & KUPPELWIESER, V. G. 2020. Intentionality and transformative services: Wellbeing co-creation and spill-over effects. *Journal of Retailing and Consumer Services,* 52**,** 101922.
FLEETWOOD, S. 2005. Ontology in organization and management studies: A critical realist perspective. *Organization,* 12**,** 197-222.
FLEISCHMAN, D., RACITI, M. & LAWLEY, M. 2015. Degrees of co-creation: an exploratory study of perceptions of international students' role in community engagement experiences. *Journal of Marketing for Higher Education,* 25**,** 85-103.
FÜLLER, J. 2006. Why consumers engage in virtual new product developments initiated by producers. *NA-Advances in Consumer Research Volume 33*.
FÜLLER, J. 2010. Refining Virtual Co-Creation from a Consumer Perspective. *California Management Review,* 52**,** 98-122.
FULLER, J., MUHLBACHER, H., MATZLER, K. & JAWECKI, G. 2009. Consumer Empowerment Through Internet-Based Co-creation. *J. Manage. Inf. Syst.,* 26**,** 71-102.
FULLERTON, R. A. & PUNJ, G. 1993. Choosing to misbehave: A structural model of aberrant consumer behavior. *ACR North American Advances*.
FUNCHES, V., MARKLEY, M. & DAVIS, L. 2009. Reprisal, retribution and requital: Investigating customer retaliation. *Journal of Business Research,* 62**,** 231-238.
FYRBERG YNGFALK, A. 2013. 'It's not us, it's them!' – Rethinking value co-creation among multiple actors. *Journal of Marketing Management,* 29**,** 1163-1181.
GAGNÉ, M. & DECI, E. L. 2005. Self-determination theory and work motivation. *Journal of Organizational behavior,* 26**,** 331-362.
GALLARZA, M. G. & SAURA, I. G. 2006. Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour. *Tourism management,* 27**,** 437-452.
GALVAGNO, M. & DALLI, D. 2014. Theory of value co-creation: a systematic literature review. *Managing Service Quality: An International Journal,* 24**,** 643-683.

GEBAUER, J., FÜLLER, J. & PEZZEI, R. 2013. The dark and the bright side of co-creation: Triggers of member behavior in online innovation communities. *Journal of Business Research,* 66**,** 1516-1527.
GOLDBERG, L. R. 1993. The structure of phenotypic personality traits. *American psychologist,* 48**,** 26.
GOUILLART, F. J. 2014. The race to implement co-creation of value with stakeholders: five approaches to competitive advantage. *Strategy & Leadership,* 42**,** 2-8.
GRÉGOIRE, Y., LAUFER, D. & TRIPP, T. M. 2010. A comprehensive model of customer direct and indirect revenge: understanding the effects of perceived greed and customer power. *Journal of the Academy of Marketing Science,* 38**,** 738-758.
GRONROOS, C. 2011. Value co-creation in service logic: A critical analysis. *Marketing Theory,* 11**,** 279-301.
GRÖNROOS, C. & RAVALD, A. 2011. Service as business logic: implications for value creation and marketing. *Journal of Service Management,* 22**,** 5-22.
GRÖNROOS, C. & SVENSSON, G. 2008. Service logic revisited: who creates value? And who co-creates? *European business review,* 20**,** 298-314.
GRÖNROOS, C. & VOIMA, P. 2013. Critical service logic: making sense of value creation and co-creation. *Journal of the academy of marketing science,* 41**,** 133-150.
GROTH, M. 2005. Customers as good soldiers: Examining citizenship behaviors in internet service deliveries. *Journal of management,* 31**,** 7-27.
GROTH, M., MERTENS, D. P. & MURPHY, R. O. 2005. Customers as Good Soldiers: Extending Organizational Citizenship Behavior Research to the Customer Domain. *Journal of Management,* 31**,** 415-433.
GUBA, E. G. & LINCOLN, Y. S. 1994. Competing paradigms in qualitative research. *Handbook of qualitative research,* 2**,** 105.
GUMMESSON, E., GUMMESSON, E., LUSCH, R. F. & VARGO, S. L. 2010a. Transitioning from service management to service-dominant logic. *International Journal of Quality and Service Sciences,* 2**,** 8-22.
GUMMESSON, E., LUSCH, R. F. & VARGO, S. L. 2010b. Transitioning from service management to service-dominant logic: Observations and recommendations. *International Journal of Quality and Service Sciences,* 2**,** 8-22.
HAIR, J. F., BLACK, W. C., BABIN, B. J. & ANDERSON, R. E. 2014. *Multivariate data analysis*.
HARRIS, L. C. & REYNOLDS, K. L. 2003. The consequences of dysfunctional customer behavior. *Journal of service research,* 6**,** 144-161.
HARRIS, L. C. & REYNOLDS, K. L. 2004. Jaycustomer behavior: an exploration of types and motives in the hospitality industry. *Journal of Services Marketing,* 18**,** 339-357.
HASCHE, N. & LINTON, G. 2018. The value of failed relationships for the development of a Medtech start-up. *Journal of Small Business & Entrepreneurship,* 30**,** 97-119.
HEINONEN, K., STAUSS, B., STRANDVIK, T., MICKELSSON, K.-J., EDVARDSSON, B., SUNDSTRÖM, E. & ANDERSSON, P. 2010. A customer-dominant logic of service. *Journal of Service Management,* 21**,** 531-548.
HENNIG-THURAU, T., GWINNER, K. P., WALSH, G. & GREMLER, D. D. 2004. Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing,* 18**,** 38-52.
HILER, J. L., COOK, L. A. & NORTHINGTON, W. M. 2018. Making inconsistent worlds: a conceptual framework for co-competition. *Journal of Consumer Marketing,* 35**,** 254-263.
HIRSCHMAN, E. C. & HOLBROOK, M. B. 1982. Hedonic consumption: emerging concepts, methods and propositions. *Journal of marketing,* 46**,** 92-101.
HOLBROOK, M. B. 1980. Some preliminary notes on research in consumer esthetics. *ACR North American Advances*.
HOLBROOK, M. B. 2006. Consumption experience, customer value, and subjective personal introspection: An illustrative photographic essay. *Journal of business research,* 59**,** 714-725.

HOLBROOK, M. B. & HIRSCHMAN, E. C. 1982. The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun. *Journal of Consumer Research,* 9**,** 132-140.
HOU, W., LI, D. & ZHENG, H. 2011. Task Design, Motivation, and Participation in Crowdsourcing Contests. *International Journal of Electronic Commerce,* 15**,** 57-88.
HOYER, W. D., CHANDY, R., DOROTIC, M., KRAFFT, M. & SINGH, S. S. 2010. Consumer Cocreation in New Product Development. *Journal of Service Research,* 13**,** 283-296.
IGLESIAS, O., LANDGRAF, P., IND, N., MARKOVIC, S. & KOPORCIC, N. 2020. Corporate brand identity co-creation in business-to-business contexts. *Industrial Marketing Management,* 85**,** 32-43.
IND, N., FULLER, C. & TREVAIL, C. 2012. *Brand together: How co-creation generates innovation and re-energizes brands*, Kogan Page Publishers.
ISIN, F. B., ALTINTAS, H. & ALTINTAS, F. C. 2010. Research on the attitudes of consumers and workers towards customer misbehaviors. *Journal of Service Science,* 2**,** 55-80.
ITANI, O. S., EL HADDAD, R. & KALRA, A. 2020. Exploring the role of extrovert-introvert customers' personality prototype as a driver of customer engagement: Does relationship duration matter? *Journal of Retailing and Consumer Services,* 53**,** 101980.
JACOBY, J. & JACCARD, J. J. 1981. The sources, meaning, and validity of consumer complaint behavior: A psychological analysis. *Journal of retailing*.
JANG, K. L., MCCRAE, R. R., ANGLEITNER, A., RIEMANN, R. & LIVESLEY, W. J. 1998. Heritability of facet-level traits in a cross-cultural twin sample: support for a hierarchical model of personality. *Journal of personality and social psychology,* 74**,** 1556.
JÄRVI, H., KÄHKÖNEN, A.-K. & TORVINEN, H. 2018. When value co-creation fails: Reasons that lead to value co-destruction. *Scandinavian Journal of Management,* 34**,** 63-77.
JAYASHANKAR, P., JOHNSTON, W. J., NILAKANTA, S. & BURRES, R. 2019. Co-creation of value-in-use through big data technology-a B2B agricultural perspective. *Journal of Business & Industrial Marketing*.
JOHN, O. P., DONAHUE, E. M. & KENTLE, R. L. 1991. The big five inventory—versions 4a and 54. Berkeley, CA: University of California, Berkeley, Institute of Personality ….
JOHN, O. P. & SRIVASTAVA, S. 1999. The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research,* 2**,** 102-138.
KAARTEMO, V. & KÄNSÄKOSKI, H. 2018. Information and Knowledge Processes in Health Care Value Co-Creation and Co-Destruction. *SAGE Open,* 8**,** 2158244018820482.
KANELLIS, P. & PAPADOPOULOS, T. 2009. Conducting research in information systems: an epistemological journey. *Information systems research methods, epistemology, and applications.* IGI Global.
KANTANEN, H. 2017. Value co-production through external communication consulting. *Corporate Communications: An International Journal,* 22**,** 455-470.
KASHIF, M. & ZARKADA, A. 2015. Value co-destruction between customers and frontline employees. *International Journal of Bank Marketing,* 33**,** 672-691.
KAUFMANN, H. R., LOUREIRO, S. M. C. & MANARIOTI, A. 2016. Exploring behavioural branding, brand love and brand co-creation. *Journal of Product & Brand Management,* 25**,** 516-526.
KELLOGG, D. L., YOUNGDAHL, W. E. & BOWEN, D. E. 1997. On the relationship between customer participation and satisfaction: two frameworks. *International Journal of Service Industry Management,* 8**,** 206-219.
KENNEDY, E. & GUZMÁN, F. 2016. Co-creation of brand identities: consumer and industry influence and motivations. *Journal of Consumer Marketing,* 33**,** 313-323.
KIM, K., BYON, K. K. & BAEK, W. 2019. Customer-to-customer value co-creation and co-destruction in sporting events. *The Service Industries Journal***,** 1-23.
KING, J. E. & FIGUEREDO, A. J. 1997. The five-factor model plus dominance in chimpanzee personality. *Journal of research in personality,* 31**,** 257-271.
KLUCKHOHN, C. 1951. *Values and value-orientations in the theory of action: An exploration in definition and classification*.

KRASNOVSKY, T. & LANE, R. C. 1998. Shoplifting: A review of the literature. *Aggression and Violent Behavior,* 3**,** 219-235.
KREBS, D. L. 1991. Altruism and egoism: A false dichotomy? *Psychological Inquiry,* 2**,** 137-139.
LAEE, C. & SHERRY, L. 2016. Motivations leading to customer citizenship behavior in services: scale development and validation. *Journal of Consumer Marketing,* 33**,** 539-551.
LEIKAS, S., ILMARINEN, V.-J., VERKASALO, M., VARTIAINEN, H.-L. & LÖNNQVIST, J.-E. 2018. Relationship satisfaction and similarity of personality traits, personal values, and attitudes. *Personality and Individual Differences,* 123**,** 191-198.
LENGNICK-HALL, C. A., CLAYCOMB, V. & INKS, L. W. 2000. From recipient to contributor: examining customer roles and experienced outcomes. *European Journal of Marketing,* 34**,** 359-383.
LENNON, S. J., LEE, J., KIM, M. & JOHNSON, K. K. 2014. Antecedents of consumer misbehaviour on Black Friday: A social responsibility view. *Fashion, Style & Popular Culture,* 1**,** 193-212.
LEVIN, K. A. 2006. Study design III: Cross-sectional studies. *Evidence-based dentistry,* 7**,** 24.
LEVY, S. J. 1999. Symbols for sale. *Brands, Consumers, Symbols and Research: Sidney J Levy on Marketing***,** 203-212.
LINDEMAN, M. & VERKASALO, M. 2005. Measuring values with the short Schwartz's value survey. *Journal of personality assessment,* 85**,** 170-178.
LOCKE, E. A. & LATHAM, G. P. 2004. What should we do about motivation theory? Six recommendations for the twenty-first century. *Academy of management review,* 29**,** 388-403.
LOMAX, R. G. & SCHUMACKER, R. E. 2004. *A beginner's guide to structural equation modeling*, psychology press.
LÖNNQVIST, J.-E. & ITKONEN, J. V. A. 2016. Homogeneity of personal values and personality traits in Facebook social networks. *Journal of Research in Personality,* 60**,** 24-35.
LOVELOCK, C. H. 1994. *Product Plus: How Product + Service*, McGraw-Hill.
LUK, C. L. & BOND, M. H. 1993. Personality variation and values endorsement in Chinese University students. *Personality and Individual Differences,* 14**,** 429-437.
LUO, J., WONG, I. A., KING, B., LIU, M. T. & HUANG, G. 2019. Co-creation and co-destruction of service quality through customer-to-customer interactions: Why prior experience matters. *International Journal of Contemporary Hospitality Management,* 31**,** 1309-1329.
LUSCH, R. F., VARGO, S. L. & O'BRIEN, M. 2007. Competing through service: Insights from service-dominant logic. *Journal of Retailing,* 83**,** 5-18.
LUSCH, R. F., VARGO, S. L. & TANNIRU, M. 2010. Service, value networks and learning. *Journal of the Academy of Marketing Science,* 38**,** 19-31.
M. SMITH, A. 2013. The value co-destruction process: a customer resource perspective. *European Journal of Marketing,* 47**,** 1889-1909.
MACKENZIE, N. & KNIPE, S. 2006. Research dilemmas: Paradigms, methods and methodology. *Issues in educational research,* 16**,** 193-205.
MAGLIO, P. P. & SPOHRER, J. 2008. Fundamentals of service science. *Journal of the Academy of Marketing Science,* 36**,** 18-20.
MAKKONEN, H. & OLKKONEN, R. 2017. Interactive value formation in interorganizational relationships:Dynamic interchange between value co-creation, no-creation, and co-destruction. *Marketing Theory,* 17**,** 517-535.
MALAR, D. A., ARVIDSSON, V. & HOLMSTROM, J. 2019. Digital Transformation in Banking: Exploring Value Co-Creation in Online Banking Services in India. *Journal of Global Information Technology Management***,** 1-18.
MALONE, S., MCKECHNIE, S. & TYNAN, C. 2018. Tourists' Emotions as a Resource for Customer Value Creation, Cocreation, and Destruction: A Customer-Grounded Understanding. *Journal of Travel Research,* 57**,** 843-855.
MARCUS, J. & ROY, J. 2019. In search of sustainable behaviour: The role of core values and personality traits. *Journal of Business Ethics,* 158**,** 63-79.
MARSHALL, M. N. 1996. Sampling for qualitative research. *Family practice,* 13**,** 522-526.

MCCRAE, R. R. & COSTA JR, P. T. 1999. A five-factor theory of personality. *Handbook of personality: Theory and research,* 2**,** 139-153.
MCCRAE, R. R. & COSTA, P. T. 1990. Personality in Adulthood. New York: The Guilford Press.
MCCRAE, R. R. & JOHN, O. P. 1992. An introduction to the five-factor model and its applications. *Journal of personality,* 60**,** 175-215.
MCDONALD, J. S. & LETZRING, T. D. 2016. Judging personal values and personality traits: Accuracy and its relation to visibility. *Journal of Research in Personality,* 65**,** 140-151.
MERZ, M. A., ZARANTONELLO, L. & GRAPPI, S. 2018. How valuable are your customers in the brand value co-creation process? The development of a Customer Co-Creation Value (CCCV) scale. *Journal of Business Research,* 82**,** 79-89.
MICHEL, S., BROWN, S. W. & GALLAN, A. S. 2008. An expanded and strategic view of discontinuous innovations: deploying a service-dominant logic. *Journal of the Academy of Marketing Science,* 36**,** 54-66.
MONROE, K. B. & KRISHNAN, R. 1985. The effect of price on subjective product evaluations. *Perceived quality,* 1**,** 209-232.
MORSE, J. M. 2000. Determining sample size. Sage Publications Sage CA: Thousand Oaks, CA.
MOSCHIS, G. P. & COX, D. 1989. Deviant consumer behavior. *ACR North American Advances*.
MYSZKOWSKI, N. & STORME, M. 2012. How personality traits predict design-driven consumer choices. *Europe's Journal of Psychology,* 8**,** 641-650.
NAM, K., BAKER, J., AHMAD, N. & GOO, J. 2018. Dissatisfaction, disconfirmation, and distrust: an empirical examination of value co-destruction through negative electronic word-of-mouth (Ewom). *Information Systems Frontiers***,** 1-18.
NAMBISAN, S. & BARON, R. A. 2009. Virtual Customer Environments: Testing a Model of Voluntary Participation in Value Co-creation Activities. *Journal of Product Innovation Management,* 26**,** 388-406.
NANG, F. L. H., IAN, S. A. S. & ROB, L. 2017. Exploring jaycustomer behavior and handling approach in casinos. *International Journal of Contemporary Hospitality Management,* 29**,** 1403-1425.
NORMAN, W. T. 1963. Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *The Journal of Abnormal and Social Psychology,* 66**,** 574.
NORMANN, R. 2001. *Reframing business: When the map changes the landscape*, John Wiley & Sons.
OBEIDAT, Z. M., XIAO, S. H., QASEM, Z. A., DWEERI, R. A. & OBEIDAT, A. 2018. Social media revenge: A typology of online consumer revenge. *Journal of Retailing and Consumer Services,* 45**,** 239-255.
OLVER, J. M. & MOORADIAN, T. A. 2003. Personality traits and personal values: A conceptual and empirical integration. *Personality and individual differences,* 35**,** 109-125.
OREG, S. & NOV, O. 2008. Exploring motivations for contributing to open source initiatives: The roles of contribution context and personal values. *Computers in Human Behavior,* 24**,** 2055-2073.
OSEI-FRIMPONG, K., WILSON, A. & OWUSU-FRIMPONG, N. 2015. Service experiences and dyadic value co-creation in healthcare service delivery: a CIT approach. *Journal of Service Theory and Practice,* 25**,** 443-462.
PALUMBO, R. & MANNA, R. 2018. What if things go wrong in co-producing health services? Exploring the implementation problems of health care co-production. *Policy and Society,* 37**,** 368-385.
PARIMI, S. & CHAKRABORTY, S. 2020. Linking Green Supply Chain Management, Co-creation, and Sustainability: Empirical Revisit in Indian Manufacturing Sector Context. *Smart Systems and IoT: Innovations in Computing.* Springer.
PARK, J. & HA, S. 2016. Co-creation of service recovery: Utilitarian and hedonic value and post-recovery responses. *Journal of Retailing and Consumer Services,* 28**,** 310-316.
PARKS-LEDUC, L., FELDMAN, G. & BARDI, A. 2015. Personality traits and personal values: A meta-analysis. *Personality and Social Psychology Review,* 19**,** 3-29.

PARKS, L. & GUAY, R. P. 2009. Personality, values, and motivation. *Personality and Individual Differences,* 47**,** 675-684.
PATRICIO, R., MOREIRA, A., ZURLO, F. & MELAZZINI, M. 2020. Co-creation of new solutions through gamification: A collaborative innovation practice. *Creativity and Innovation Management,* 29**,** 146-160.
PATTON, M. Q. 1990. *Qualitative evaluation and research methods*, SAGE Publications, inc.
PAUL, R. K. 2006. Multicollinearity: Causes, effects and remedies. *IASRI, New Delhi,* 1**,** 58-65.
PAYNE, A., STORBACKA, K., FROW, P. & KNOX, S. 2009. Co-creating brands: Diagnosing and designing the relationship experience. *Journal of Business Research,* 62**,** 379-389.
PAYNE, A. F., STORBACKA, K. & FROW, P. 2007. Managing the co-creation of value. *Journal of the Academy of Marketing Science,* 36**,** 83-96.
PAYNE, G. & PAYNE, J. 2004. *Key concepts in social research*, Sage.
PEEROO, S., SAMY, M. & JONES, B. 2017. Facebook: a blessing or a curse for grocery stores? *International Journal of Retail & Distribution Management,* 45**,** 1242-1259.
PITTS, R. E. & WOODSIDE, A. G. 1986. Personal Values and Travel Decisions. *Journal of Travel Research,* 25**,** 20-25.
PLE, L. 2016. Studying customers' resource integration by service employees in interactional value co-creation. *JOURNAL OF SERVICES MARKETING,* 30**,** 152-164.
PLÉ, L. & CÁCERES, R. 2010. Not always co-creation: introducing interactional co-destruction of value in service-dominant logic. *Journal of Services Marketing,* 24**,** 430-437.
PLÉ, L., LECOCQ, X. & ANGOT, J. 2010. Customer-integrated business models: A theoretical framework. *Management,* 13**,** 226-265.
PODSAKOFF, P. M., MACKENZIE, S. B., LEE, J. Y. & PODSAKOFF, N. P. 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J Appl Psychol,* 88**,** 879-903.
PODSAKOFF, P. M. & ORGAN, D. W. 1986. Self-reports in organizational research: Problems and prospects. *Journal of management,* 12**,** 531-544.
PRAHALAD, C. & RAMASWAMY, V. 2004a. The Future of Competition: Co-Creating Unique Value With Customers.
PRAHALAD, C. K. & RAMASWAMY, V. 2002. The co-creation connection. *Strategy and Business***,** 50-61.
PRAHALAD, C. K. & RAMASWAMY, V. 2004b. Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing,* 18**,** 5-14.
PRAHALAD, C. K. & RAMASWAMY, V. 2004c. Co-creating unique value with customers. *Strategy & Leadership,* 32**,** 4-9.
QUACH, S. & THAICHON, P. 2017. From connoisseur luxury to mass luxury: Value co-creation and co-destruction in the online environment. *Journal of Business Research,* 81**,** 163-172.
QUACH, S. & THAICHON, P. 2018. Dark motives-counterfeit selling framework: An investigate on the supply side of the non-deceptive market. *Marketing Intelligence & Planning,* 36**,** 245-259.
RAMASWAMY, V. 2010. Competing through co-creation: innovation at two companies. *Strategy & Leadership,* 38**,** 22-29.
RAMASWAMY, V. & GOUILLART, F. J. 2010. *The power of co-creation: Build it with them to boost growth, productivity, and profits*, Simon and Schuster.
RAMASWAMY, V. & OZCAN, K. 2013. Strategy and co-creation thinking. *Strategy & Leadership,* 41**,** 5-10.
RAMASWAMY, V. & OZCAN, K. 2018. What is co-creation? An interactional creation framework and its implications for value creation. *Journal of Business Research,* 84**,** 196-205.
RAMIREZ, R. 1999. Value co-production: intellectual origins and implications for practice and research. *Strategic Management Journal***,** 49-65.
RANJAN, K. R. & READ, S. 2014. Value co-creation: concept and measurement. *Journal of the Academy of Marketing Science,* 44**,** 290-315.

RAVLIN, E. C. & MEGLINO, B. M. 1987. Issues in work values measurement. *Research in corporate social performance and policy,* 9**,** 153-183.
REUTERS. 2021. *JPMorgan admits it misjudged backing European Super League* [Online]. Available: https://www.reuters.com/world/uk/jpmorgan-says-it-misjudged-backing-european-super-league-2021-04-23/ [Accessed 24/04/2021 2021].
REVILLA-CAMACHO, M. Á., VEGA-VÁZQUEZ, M. & COSSÍO-SILVA, F. J. 2015. Customer participation and citizenship behavior effects on turnover intention. *Journal of Business Research,* 68**,** 1607-1611.
REYNOLDS, K. L. & HARRIS, L. C. 2005. When service failure is not service failure: an exploration of the forms and motives of "illegitimate" customer complaining. *Journal of Services Marketing,* 19**,** 321-335.
RIHOVA, I., BUHALIS, D., MOITAL, M. & GOUTHRO, M. B. 2013. Social layers of customer-to-customer value co-creation. *Journal of Service Management,* 24**,** 553-566.
ROBERTS, D., HUGHES, M. & KERTBO, K. 2014. Exploring consumers' motivations to engage in innovation through co-creation activities. *European Journal of Marketing,* 48**,** 147-169.
ROBERTSON, N., POLONSKY, M. & MCQUILKEN, L. 2014. Are my symptoms serious Dr Google? A resource-based typology of value co-destruction in online self-diagnosis. *Australasian Marketing Journal (AMJ),* 22**,** 246-256.
ROCCAS, S., SAGIV, L., SCHWARTZ, S. H. & KNAFO, A. 2002. The big five personality factors and personal values. *Personality and social psychology bulletin,* 28**,** 789-801.
ROKEACH, M. 1973. *The nature of human values*, Free press.
ROSER, T., DEFILLIPPI, R. & SAMSON, A. 2013. Managing your co-creation mix: co-creation ventures in distinctive contexts. *European Business Review,* 25**,** 20-41.
RYAN, R. M. & CONNELL, J. P. 1989. Perceived locus of causality and internalization: examining reasons for acting in two domains. *Journal of personality and social psychology,* 57**,** 749.
RYAN, R. M. & DECI, E. L. 2000. Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemp Educ Psychol,* 25**,** 54-67.
SAARIJÄRVI, H., KANNAN, P. K. & KUUSELA, H. 2013. Value co-creation: theoretical approaches and practical implications. *European Business Review,* 25**,** 6-19.
SALONEN, M., VAPALAHTI, K., TIIRA, K., MÄKI-TANILA, A. & LOHI, H. 2019. Breed differences of heritable behaviour traits in cats. *Scientific reports,* 9**,** 7949.
SÄWE, F. & THELANDER, Å. 2015. The role of frames in a co-creation process. *International Journal of Quality and Service Sciences,* 7**,** 442-457.
SAWHNEY, M., VERONA, G. & PRANDELLI, E. 2005. Collaborating to create: The Internet as a platform for customer engagement in product innovation. *Journal of Interactive Marketing,* 19**,** 4-17.
SCHAU, H. J., ALBERT M. MUÑIZ, J. & ARNOULD, E. J. 2009. How Brand Community Practices Create Value. *Journal of Marketing,* 73**,** 30-51.
SCHOPPHOVEN, I. 1991. Values and consumption patterns: A comparison between rural and urban consumers in western Germany. *European Journal of Marketing,* 25**,** 20-35.
SCHWARTZ, S. 2005. Basic human values; Their content and structure across countries, Department of Psychology, Israel: The Hebrew University of Jerusalem, Chapter 1. *Valores e Trablho*.
SCHWARTZ, S. H. 1992a. Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. 25**,** 1-65.
SCHWARTZ, S. H. 1992b. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in experimental social psychology.* Elsevier.
SCHWARTZ, S. H. 2007. Basic human values: theory, methods, and application. *Risorsa Uomo*.
SCHWARTZ, S. H. & BILSKY, W. 1987. Toward a universal psychological structure of human values. *Journal of personality and social psychology,* 53**,** 550.
SCHWARTZ, S. H., CIECIUCH, J., VECCHIONE, M., DAVIDOV, E., FISCHER, R., BEIERLEIN, C., RAMOS, A., VERKASALO, M., LÖNNQVIST, J.-E. & DEMIRUTKU, K. 2012. Refining the theory of basic individual values. *Journal of personality and social psychology,* 103**,** 663.

SEDGWICK, P. 2014. Non-response bias versus response bias. *Bmj,* 348.
SEKARAN, U. & BOUGIE, R. 2016. *Research methods for business: A skill building approach*, John Wiley & Sons.
SHETH, J. N. & USLAY, C. 2007. Implications of the revised definition of marketing: from exchange to value creation. *Journal of Public Policy & Marketing,* 26**,** 302-307.
SINGH, R. & KOSHY, A. 2011. Does salesperson's customer orientation create value in B2B relationships? Empirical evidence from India. *Industrial Marketing Management,* 40**,** 78-85.
SKAGGS, B. C. & YOUNDT, M. 2004. Strategic positioning, human capital, and performance in service organizations: A customer interaction approach. *Strategic Management Journal,* 25**,** 85-99.
SKÅLÉN, P., PACE, S. & COVA, B. 2015. Firm-brand community value co-creation as alignment of practices. *European Journal of Marketing,* 49**,** 596-620.
SMITH, A. M. 2013. The value co-destruction process: a customer resource perspective. *European Journal of Marketing,* 47**,** 1889-1909.
SMITH, T. F. 2008. Integrative literature review: Methods in identifying exemplary performance: A review of the literature and implications for HRD. *Human Resource Development Review,* 7**,** 443-468.
SMYTH, H., LECOEUVRE, L. & VAESKEN, P. 2018. Co-creation of value and the project context: Towards application on the case of Hinkley Point C Nuclear Power Station. *International Journal of Project Management,* 36**,** 170-183.
SOTO, C. J., JOHN, O. P., GOSLING, S. D. & POTTER, J. 2008. The developmental psychometrics of big five self-reports: Acquiescence, factor structure, coherence, and differentiation from ages 10 to 20. *Journal of personality and social psychology,* 94**,** 718.
SOTO, C. J., JOHN, O. P., GOSLING, S. D. & POTTER, J. 2011. Age differences in personality traits from 10 to 65: Big Five domains and facets in a large cross-sectional sample. *Journal of personality and social psychology,* 100**,** 330.
SOUSA, F. J. 2010. Chapter 9 Metatheories in research: positivism, postmodernism, and critical realism. *Organizational culture, business-to-business relationships, and interfirm networks.* Emerald Group Publishing Limited.
STATISTA. 2019. *Share of adults in the United States who use the internet from 2000 to 2019* [Online]. Available: https://www.statista.com/statistics/185700/percentage-of-adult-internet-users-in-the-united-states-since-2000/ [Accessed 04/07/2019 2019].
STHAPIT, E. 2018. My bad for wanting to try something unique: sources of value co-destruction in the Airbnb context. *Current Issues in Tourism***,** 1-4.
STHAPIT, E. & BJÖRK, P. 2018. Towards a better understanding of interactive value formation: Three value outcomes perspective. *Current Issues in Tourism***,** 1-14.
STHAPIT, E. & BJÖRK, P. 2019. Sources of value co-destruction: Uber customer perspectives. *Tourism Review*.
STHAPIT, E. & JIMÉNEZ-BARRETO, J. 2018. You never know what you will get in an Airbnb: poor communication destroys value for guests. *Current Issues in Tourism***,** 1-4.
STIELER, M., WEISMANN, F. & GERMELMANN, C. C. 2014. Co-destruction of value by spectators: the case of silent protests. *European Sport Management Quarterly,* 14**,** 72-86.
STORBACKA, K., FROW, P., NENONEN, S. & PAYNE, A. 2012. Designing business models for value co-creation.
SUNDARAM, D. S., MITRA, K. & WEBSTER, C. 1998. Word-of-mouth communications: A motivational analysis. *ACR North American Advances*.
SWEENEY, J. C. & SOUTAR, G. N. 2001. Consumer perceived value: The development of a multiple item scale. *Journal of retailing,* 77**,** 203-220.
TABACHNICK, B. G., FIDELL, L. S. & ULLMAN, J. B. 2007. *Using multivariate statistics*, Pearson Boston, MA.
TERRY LONG, B. 2004. How have college decisions changed over time? An application of the conditional logistic choice model. *Journal of Econometrics,* 121**,** 271-296.

TIMMERMANS, E. & DE CALUWÉ, E. 2017. Development and validation of the Tinder Motives Scale (TMS). *Computers in Human Behavior,* 70**,** 341-350.

TORRACO, R. J. 2005. Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review,* 4**,** 356-367.

TREVISAN, M. S. 2004. Practical training in evaluation: A review of the literature. *American Journal of Evaluation,* 25**,** 255-272.

TRIANDIS, H. C. 1977. *Interpersonal behavior,* Monterey, Calif., Brooks/Cole Pub. Co.

UPPSTRÖM, E. & LÖNN, C.-M. 2017. Explaining value co-creation and co-destruction in e-government using boundary object theory. *Government Information Quarterly,* 34**,** 406-420.

VAFEAS, M., HUGHES, T. & HILTON, T. 2016. Antecedents to value diminution: A dyadic perspective. *MARKETING THEORY,* 16**,** 469-491.

VAN TEIJLINGEN, E. R. & HUNDLEY, V. 2001. The importance of pilot studies.

VARGO, S. L. & LUSCH, R. F. 2004. Evolving to a New Dominant Logic for Marketing. *Journal of Marketing,* 68**,** 1-17.

VARGO, S. L. & LUSCH, R. F. 2008a. From goods to service(s): Divergences and convergences of logics. *Industrial Marketing Management,* 37**,** 254-259.

VARGO, S. L. & LUSCH, R. F. 2008b. Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science,* 36**,** 1-10.

VARGO, S. L. & LUSCH, R. F. 2016. Institutions and axioms: an extension and update of service-dominant logic. *Journal of the Academy of Marketing Science,* 44**,** 5-23.

VARGO, S. L., MAGLIO, P. P. & AKAKA, M. A. 2008. On value and value co-creation: A service systems and service logic perspective. *European Management Journal,* 26**,** 145-152.

VEGA-VAZQUEZ, M., ÁNGELES REVILLA-CAMACHO, M. & J. COSSÍO-SILVA, F. 2013. The value co-creation process as a determinant of customer satisfaction. *Management Decision,* 51**,** 1945-1953.

VERPLANKEN, B. & HOLLAND, R. W. 2002. Motivated decision making: Effects of activation and self-centrality of values on choices and behavior. *Journal of personality and social psychology,* 82**,** 434.

VOSS, K. E., SPANGENBERG, E. R. & GROHMANN, B. 2003. Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of marketing research,* 40**,** 310-320.

WEN-HAI, C., YUAN, C.-Y., LIU, M.-T. & FANG, J.-F. 2018. The effects of outward and inward negative emotions on consumers' desire for revenge and negative word of mouth. *Online Information Review*.

WESTER, K. L. 2011. Publishing ethical research: A step-by-step overview. *Journal of Counseling & Development,* 89**,** 301-307.

WITHIAM, G. 1998. Customers from hell: what do they do? *Cornell Hotel & Restaurant Administration Quarterly***,** 11-11.

WOODALL, T. 2003. Conceptualising'value for the customer': An attributional, structural and dispositional analysis. *Academy of marketing science review,* 2003**,** 1.

WOODRUFF, R. B. 1997a. Customer value: the next source for competitive advantage. *Journal of the academy of marketing science,* 25**,** 139-153.

WOODRUFF, R. B. 1997b. Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science,* 25**,** 139.

WORTHINGTON, S. & DURKIN, M. 2012. Co-destruction of value in context: Cases from retail banking. *The Marketing Review,* 12**,** 291-307.

YAGIL, D. & LURIA, G. 2014. Being Difficult: Customers' Sensemaking of Their Deviant Behavior. *Deviant Behavior,* 35**,** 921-937.

YI, Y. & GONG, T. 2006. The antecedents and consequences of service customer citizenship and badness behavior. *Seoul Journal of Business,* 12**,** 145-176.

YI, Y. & GONG, T. 2008. The effects of customer justice perception and affect on customer citizenship behavior and customer dysfunctional behavior. *Industrial Marketing Management,* 37**,** 767-783.

YI, Y. & GONG, T. 2013. Customer value co-creation behavior: Scale development and validation. *Journal of Business Research,* 66**,** 1279-1284.

YI, Y., NATARAAJAN, R. & GONG, T. 2011. Customer participation and citizenship behavioral influences on employee performance, satisfaction, commitment, and turnover intention. *Journal of Business Research,* 64**,** 87-95.

YIN, J., QIAN, L. & SHEN, J. 2018. From value co-creation to value co-destruction? The case of dockless bike sharing in China. *Transportation Research Part D: Transport and Environment*.

YIN, J., QIAN, L. & SHEN, J. 2019. From value co-creation to value co-destruction? The case of dockless bike sharing in China. *Transportation Research Part D: Transport and Environment,* 71**,** 169-185.

ZAHRA, S. A., GEDAJLOVIC, E., NEUBAUM, D. O. & SHULMAN, J. M. 2009. A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of business venturing,* 24**,** 519-532.

ZEITHAML, V. A. 1988. Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing,* 52**,** 2-22.

ZEITHAML, V. A. & BITNER, M. J. 1996. *Services Marketing*, McGraw Hill.

ZHANG, L., TONG, H., DEMIREL, H. O., DUFFY, V. G., YIH, Y. & BIDASSIE, B. 2015. A practical model of value co-creation in healthcare service. *Procedia Manufacturing,* 3**,** 200-207.

ZHANG, T., LU, C., TORRES, E. & CHEN, P.-J. 2018. Engaging customers in value co-creation or co-destruction online. *Journal of Services Marketing,* 32**,** 57-69.

ZWASS, V. 2010. Co-Creation: Toward a Taxonomy and an Integrated Research Perspective. *International Journal of Electronic Commerce,* 15**,** 11-48.