

Consumers experiencing vulnerability: a state of play in the literature

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Consumers Experiencing Vulnerability: A State of Play in the Literature

Abstract

Purpose: The purpose of this paper is to provide a state-of-the art review of research on consumers experiencing vulnerability to 1) describe the current situation of the consumers experiencing vulnerability literature and 2) develop an up-to-date synthesised definition of consumers experiencing vulnerability.

Method: This systematic review, guided by the PRISMA framework, takes a multi-disciplinary approach to identify 310 articles published between 2010 and 2019 examining consumers experiencing vulnerability. Descriptive analysis of the data is undertaken in combination with a thematic and text mining approach using Leximancer software.

Findings: A definition of consumers experiencing vulnerability is developed- *“situations where an individual’s characteristics such as states and conditions and/or external factors can lead to a consumer experiencing a sense of powerlessness in consumption settings which are unique and subjective to the individual”*.. The findings reveal consumers experiencing vulnerability have often been classified using a uni-dimensional approach (opposed to a multi-dimensional), focusing on one factor of vulnerability, the most prevalent of these being economic and age factors. A lack of research has examined consumers experiencing vulnerability based upon geographical remoteness, gender and sexual exploitation.

Originality/Value: This article is one of the first to examine consumers experiencing vulnerability using a systematic approach and text mining analysis to synthesise a large set of articles, which subsequently reduces the potential for researchers’ interpretative bias. Further, it is the first to generate a data driven definition of consumers experiencing vulnerability. It provides targeted recommendations to allow further scholarly, policy and practical contributions to this area.

Keywords: consumers experiencing vulnerability, systematic review

Introduction

Practitioners, scholars and policy makers argue that understanding and supporting consumers who experience vulnerability in a service encounter, is a top priority, with acknowledgement this group is often underrepresented or overlooked (Rosenbaum, Seger-Guttmann & Giraldo, 2017). In response, researchers have begun contributing understanding to regulatory interventions (Wilson, 2012) and services (Cartwright, 2015; Parkinson, Schuster, Mulcahy & Taiminen, 2017), which support and enhance consumers who experience vulnerabilities (sometimes referred to as vulnerable consumers in the literature) well-being (Cartwright, 2015; Echeverri & Salomonson, 2019). Despite these contributions to this growing area, important questions such as who are and what do we currently know about consumers experiencing vulnerability, and how can we understand and support their needs? (Data and Marketing Association, 2018) remain unclearly answered (Hill & Sharma, 2020).

Despite a lack of clarity as to ‘who’ consumers experiencing vulnerability are (Hill & Sharma, 2020), a plethora of studies have recently emerged in services literature and related disciplines such as marketing policy (Tanner, Vann & Kizilova, 2020) and public health (Longo et al., 2016). We seek to systematically examine and synthesise these previous consumers experiencing vulnerability studies and in turn, provide a state of play of the consumers experiencing vulnerability literature. To achieve this, we review research on consumers experiencing vulnerability utilising a multi-disciplinary approach (studying research from a range of disciplines and service consumption contexts identified in different databases including health, finance, marketing etc) to analyse the segments of consumers experiencing vulnerability previously examined and the methodological and conceptual approaches utilised in previous work. Gaining this understanding through a consolidation and analysis of previous studies is important to advance the field as currently, academics are researching different consumers experiencing vulnerability segments across disciplines

without explicitly stating or acknowledging the segment is indeed, vulnerable. As such, the current consumers experiencing vulnerability literature is quite fragmented and it is difficult to clearly examine or even identify the important cumulative insights in this field. Our study offers a synthesis to make sense of, and provide a thorough summary of, the current knowledge in the consumers experiencing vulnerability context. In doing so we address our first aim, which is to describe the current state of play of consumers experiencing vulnerability research to provide a pathway forward to continue advancing understanding of consumers who experience vulnerability in service settings.

The second aim of this study is to develop a succinct, up-to-date definition of consumers experiencing vulnerability as recently called for by Hill & Sharma (2020). In previous consumers experiencing vulnerability literature, studies often identify that defining vulnerability is difficult whilst, at the same time, recognise that developing a succinct and contemporary definition is at the cornerstone of identifying and in turn, assisting vulnerable groups. Despite this, a concrete, succinct and up-to-date definition of consumers experiencing vulnerability remains lacking (Hill & Sharma, 2020).

Baker, Gentry & Rittenburg (2005) developed a seminal definition of consumer vulnerability in 2005- “Consumer vulnerability is a state of powerlessness that arises from an imbalance in marketplace interactions or from the consumption of marketing messages and products. It occurs when control is not in an individual’s hands, creating a dependence on external factors (e.g., marketers) to create fairness in the marketplace. The actual vulnerability arises from the interaction of individual states, individual characteristics, and external conditions within a context where consumption goals may be hindered and the experience affects personal and social perceptions of self” (Baker et al., 2005, pg.134). This definition served the research field well over the last decade, however, now faces several limitations in the contemporary context. First, Baker et al.’s (2005) definition was developed

15 years ago and service and marketing scholarship has broadened its investigation of consumers experiencing vulnerability into new and emerging market phenomena since then (Rosenbaum, et al. 2017). Due to the changes in the marketplace that reflect contemporary consumers experiencing vulnerability, scholars have begun developing new definitions by either creating their own unique definition or combining it with elements of Baker et al.'s (2005) or other authors to adequately reflect the consumer segment they are investigating (Commuri and Ekici, 2008; Adkins and Jae 2010). Thus, as suggested by Gesthuizen and Scheepers (2010), researchers are developing their own or other conceptualisations of vulnerability, which can potentially lead to fragmentation of the literature and create barriers to the advancement of understanding of this important market segment. A second limitation of Baker et al.'s (2005) definition is its length. Indeed, consumer vulnerability is a complex subject and it could be argued that this may be a contributing factor to the length of Baker et al.'s (2005) definition. Third, recent literature argues a need for consumer vulnerability to be more theoretically and conceptually anchored (Hill & Sharma, 2020). It could therefore be argued that there is a need for a theoretically underpinned and parsimonious definition of consumer vulnerability. In acknowledging these noted limitations of defining consumers who experience vulnerabilities, the second aim of this study is to identify how consumers experiencing vulnerability have previously been defined and develop a definition which is succinct but also underpinned by prior scholarship and theory.

The remainder of this article is organised as follows. First, we provide a brief overview of prior research related to consumers experiencing vulnerability. After this we provide a discussion of how consumers experiencing vulnerability have previously been defined and argue for the need for a comprehensive understanding of the topic to develop a contemporary definition. Following, the method of the systematic review is presented. Next,

results of the systematic review are detailed. The implications and opportunities for research are then outlined.

Prior Consumers Experiencing Vulnerability Research

Consumers experiencing vulnerability research has seen a steady increase in interest across industry and academia for two decades (Baker, et al. 2005; Hill and Sharma, 2020). However, whilst interest has increased, the empirical evidence or work demonstrating synergies of the current understanding (and/or lack of) of consumers experiencing vulnerability is limited. The most contemporary and thorough review of consumers experiencing vulnerability was conducted by Hill and Sharma (2020) who provided a literature review of the conceptual foundations, developing a conceptual framework. Whilst these authors take a significant step forward in synthesising the expansive literature on the topic, the authors note that future investigators need to conduct a more systematic approach into the different categories and research streams of consumers experiencing vulnerability.

Aside from the literature review of Hill and Sharma (2020), systematic reviews have also targeted specific sub-types of consumers experiencing vulnerability such as bottom/base of the pyramid (Dembek, Sivasubramaniam & Chmielewski, 2020) and home care services for older consumers (Low, Yap & Brodaty, 2011). These systematic reviews whilst important, are limited in that they examine specific types and contexts of consumers experiencing vulnerability. As such, this previous work is limited in its generalisability. In turn, this paper aims to provide an initial step toward systematically synthesising the wider consumers experiencing vulnerability literature across disciplines to identify the current state of play.

Defining Consumers Experiencing Vulnerability

The consumers experiencing vulnerability (previously termed consumer vulnerability) concept has appeared in the literature since the mid-1980s as can be seen in Table 1. Goodin

(1985) proposed consumers could be vulnerable to human-made or natural harms. Multiple definitions of the concept have since been developed. For example, Lee and Soberon-Ferrer (1997) defined consumer vulnerability as, “based on consumers’ market knowledge and awareness of unfair business practices”, while Commuri and Ekici (2008) stated it was, “the sum of a systemic class-based component and a transient state-based component.”

INSERT TABLE ONE HERE

In 2005, Baker and colleagues published a seminal piece on consumers experiencing vulnerability. This work more widely introduced the topic of consumers experiencing vulnerability to services researchers taking an important step forward in the understanding of how services could support this population. Importantly, it posited one of the first and most comprehensive definitions and conceptualisation of consumers experiencing vulnerability which has been instrumental in moving the research agenda forward. However, since its publication, particularly in recent years, due to the field evolving and marketplace changing, it has become evident that there remains a deficiency of clarity and consistency in the literature regarding how consumers experiencing vulnerability should be defined and that a more up-to-date, succinct definition is required (Hill & Sharma, 2020).

The evidence a more up-to-date, concise definition of consumers experiencing vulnerability is needed comes from four key factors. First, many multi-disciplinary studies on consumers experiencing vulnerability are not employing the proposed Baker et al. (2005) definition and instead drawing on different concepts or developing their own definitions. For instance, some draw on different components of the Baker et al. (2005) paper rather than the fully proposed definition itself, whilst others draw on other conceptualisations or develop their own definitions all together to define vulnerability (Windschitl, Martin & Flugstad, 2002). This scattered approach suggests current definitions in the literature cannot be adequately applied in a multi-disciplinary setting which may be a result of the definition being 16 years old.

Second, the Baker et al. (2005) definition which is the previously seminal piece in this research area is quite lengthy being 82 words long. In response to this, researchers frequently include only the more relevant parts of the definition such as “a state of powerlessness that arises from an imbalance in marketplace interactions or from the consumption of marketing messages and products” (Elms, 2012) and leave out the less relevant components. This suggests that to increase utility, the current definition needs to be updated to reflect the key consumer vulnerability concepts whilst also being succinct.

Third, to provide a clearer representation of the concept, studies examining different consumers experiencing vulnerability segments are integrating other concepts into their definitions, not currently covered in the Baker et al. (2005) definition (Cappers, Spurlock, Todd & Jin, 2018; Stafford, Roberts & Duffy, 2012). This may suggest difficulties in integrating the Baker et al. (2005) definition into modern consumers experiencing vulnerability research, resulting in studies needing to add additional components to their definitions. As part of the ongoing development of this research area, there is a need to build and extend the Baker et al. (2005) foundational definition, while incorporating modified definitions in defining consumers experiencing vulnerability. A refreshed definition, which is holistic but easily adaptable, could assist furthering the field of consumers experiencing vulnerability research.

Fourth, recent publications support the idea that a lack of consensus exists in the literature due to current definitions being without conceptual anchoring. For instance, one study states, “there is no consensus about what constitutes this state or about its consequences for consumers. Indeed, while consumer vulnerability is often invoked in consumer research, it is usually discussed informally, with little conceptual anchoring” (Hill & Sharma, 2020, pg. 1). Based on these four key factors, a more up-to-date, succinct definition, which

encompasses the multiple aspects of contemporary vulnerability and is easily adapted, is needed to assist in advancing the field.

Methodology

Procedures

To address the two key aims of this study. A two-step analysis process was undertaken. To address the first aim, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guided a systematic review (Moher, Liberati, Tetzlaff & Altman, 2009). PRISMA is an evidence-based approach developed to facilitate the reporting of systematic reviews and has been utilised widely in the literature across disciplines (Paz et al., 2016) including services (Mahr, Stead & Odekerken-Schröder, 2019).

To address the second aim, a text mining approach using Leximancer software was employed to extract key themes and their interrelationships from previously used definitions identified in the systematic review. Leximancer 4.0 software was deemed appropriate as it has been used for the analysis of services marketing literature (e.g., Mahr, Stead & Odekerken-Schröder, 2019) and for definitions of areas central to marketing (e.g. Dann, 2010). The Leximancer software uses a clustering machine learning algorithm which seeks to identify common concepts and their relationships (Mahr, Stead & Odekerken-Schröder, 2019). For the purposes of our analysis, this refers to frequently occurring words used in the definitions of consumers experiencing vulnerability in the previous literature representing a concept, and the relationships between them representing how often different words “co-occur” in different vulnerability definitions.

1) The Systematic Review Process Guided by PRISMA

The search was conducted on 3 March 2020. The inclusion and exclusion criteria are available in Table 2. The search was limited to full, peer-reviewed papers from the previous

ten years. This date range was selected for two reasons. First, it ensured a state-of-the-art understanding of the consumers experiencing vulnerability concept was achieved as called for in previous works. Second, our systematic review extended where a summary of consumer vulnerability definitions between 1985 to 2010 conducted by Shi and Jingh's (2017) ended.

INSERT TABLE TWO HERE

Search strategy and study selection

Electronic databases searched included Scopus, EBSCO, Emerald, ProQuest, Science Direct and Web of Science. The databases were identified as relevant to understanding consumers and ensured multi-disciplinary studies would be included. The number of articles identified in the initial search from each database can be seen in Table 3.

INSERT TABLE THREE HERE

Search terms included those relevant to the concept of vulnerability in conjunction with terms for consumers. These terms were required to be present in the title or abstract to be included in the analysis. Notably, it was a decision of the authors to not include any further search restrictions as the aim of this paper was to gain an in-depth, multi-disciplinary understanding of all research conducted in the consumers experiencing vulnerability context, and therefore, a wide search was required at the outset to ensure all papers were captured. An example of the search criteria utilised can be seen below:

```
( TITLE-ABS ( vulnerab* OR disadvantage* OR stigmatize OR discriminate OR "at risk" OR susceptible ) AND TITLE-ABS ( consumer OR customer OR shopper ) ) AND DOCTYPE ( ar ) AND PUBYEAR > 2009 AND PUBYEAR < 2020 AND ( LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )
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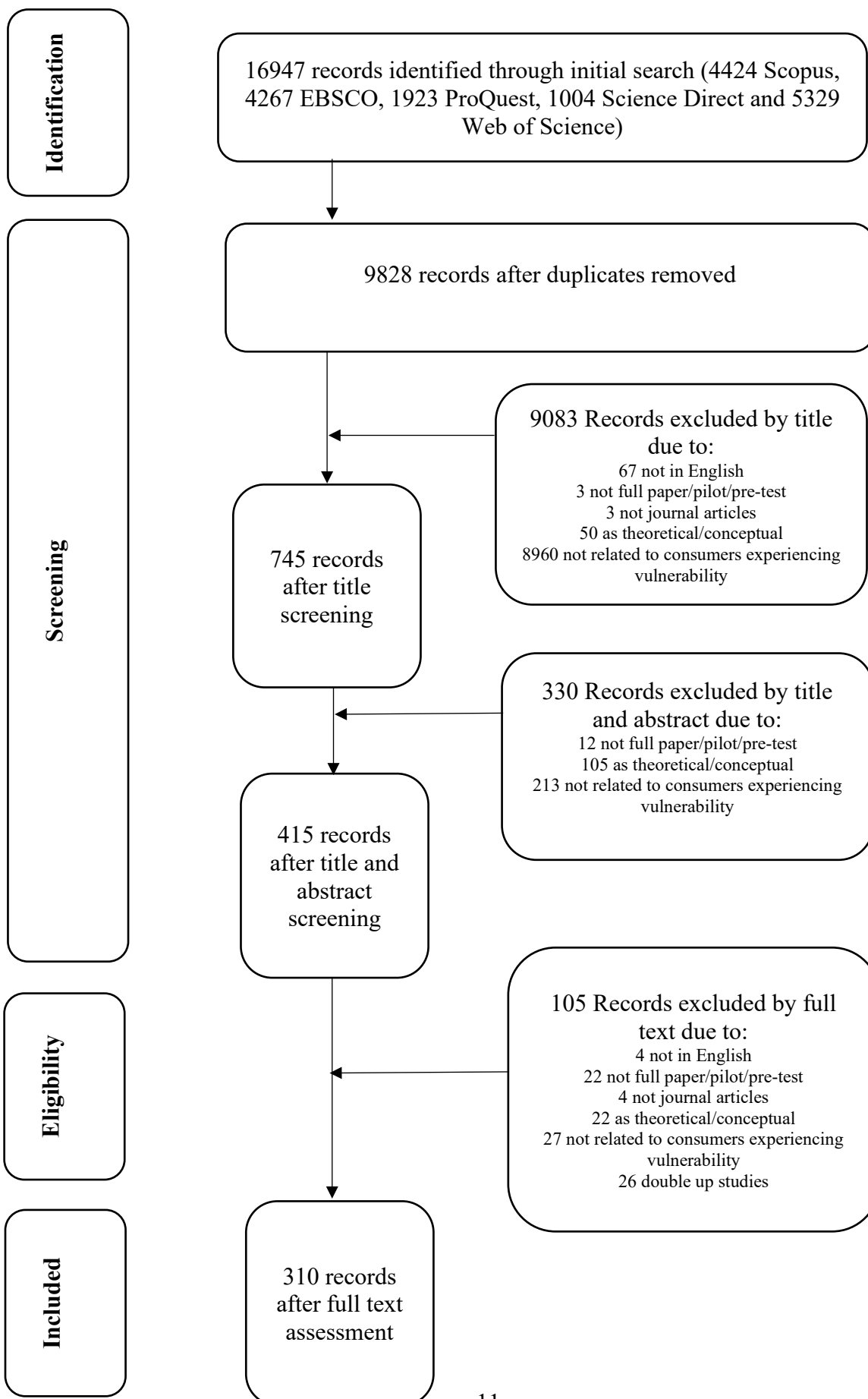
In the initial search 16,947 papers were identified (Table 4). These were screened according to the PRISMA flow diagram. First, all duplicates were deleted utilising EndNote software. Next, a title only screening was undertaken. Due to the large number of papers

identified in the initial search, the title only screening was split across the research team using coding practices to ensure a consistent screening process between researchers. This involved having clear inclusion and exclusion criteria, holding a meeting where the criteria were discussed, and the first 20 papers being screened as a team. Cross-checks were also undertaken between researchers with 20 decisions from each researcher cross-checked by an independent coder. It is important to note that if there was any uncertainty as to whether a paper should be included or excluded at this stage, it was included so that a deeper analysis could be undertaken and in turn, a decision made in the next stage.

Next, a title and abstract screening was undertaken. The lead researcher completed this stage with a small sample of screening decisions independently assessed by an independent researcher, consistent with the prior screening stage (Johnson, Horton, Mulcahy & Foth, 2017). Following this, a full-text eligibility assessment was undertaken by the lead researcher where the papers were examined in depth to ensure full adherence to the search criteria. This assessment was also cross-checked by an independent researcher. Following this process, 310 papers were found to meet the inclusion criteria. The papers from each database at each stage are presented in Table 4 and the study selection process is illustrated in Figure 1.

INSERT TABLE FOUR HERE

Figure 1. Study selection process



Data collection process and items

Data was extracted from the 310 papers utilising a data extraction form developed by the research team. The extraction process was led by the lead researcher, with 15% of the extracted data checked by an independent researcher. This ensured accuracy and consistency in the data extraction processes. Data items extracted included vulnerability label (how the paper labelled the consumers experiencing vulnerability segment of interest), segment examined, definition of vulnerability used, the country the research was conducted in, research discipline, the journal, the study aims, guiding framework, data collection method and analysis, measures utilised, sample size and results. In addition, each paper was also examined and classified utilising a Transformative Services Research (TSR) perspective (Anderson et al., 2013) as follows:

- 1) Vulnerability undertaken in two stages. Stage One involved a broad classification of vulnerability types aligning with Baker et al. (2005). Stage Two involved a more specific classification approach guided by the types of classifications identified by Rosenbaum et al. (2017). The data were classified according to the main vulnerability of focus in each paper.
- 2) Well-being outcomes examined were guided by Brugen and colleagues (2017), McColl-Kennedy and colleagues (2017) and Wright and Cropanzano (2000)
- 3) Vulnerability length which is defined as a result of circumstance (temporary) or individual characteristic (ongoing) (Hill & Sharma, 2020). An example of an ongoing vulnerability is an elderly consumer as they are considered elderly for an extended period of time. An example of a temporary vulnerability is a pregnant woman as they are pregnant for approximately 9 months.
- 4) Ecosystem level guided by Beirão and colleagues (2017)

A definition of each of these classification types is provided below in Table 5.

INSERT TABLE FIVE HERE

Quality of studies

All 310 studies included in this systematic review were assessed across five criteria and scored for quality (Table 6). Final scores for each paper ranged from five to 14. As employed in other studies (see e.g., Mason, Stevens, & Fleming, 2020), those scoring five were identified as the lowest quality and those scoring 14 had the highest possible quality. The quality assessment was undertaken by two researchers with a coding matrix developed to increase the accuracy and reliability of the process (Johnson et al., 2017). When differences in coding arose, an iterative process of quality assessment was employed (Sirriyeh, Lawton, Gardner & Armitage, 2012). Inter-rater reliability was calculated utilizing Cohen's kappa in SPSS Statistics 26 with results indicating a strong level of agreement as shown in Table 6.

INSERT TABLE SIX HERE

2) The Leximancer Process for Generating a Synthesised Definition

To create a synthesised definition of consumers experiencing vulnerability we utilised the text-mining program, Leximancer. Leximancer was deemed appropriate for the following reasons. First, beyond identifying the main concepts or words in a text, it can identify how similar words are related and thus, conducts both a thematic and relational analysis of qualitative data. Second, as Leximancer is a machine learning technique it mitigates subjectivity of researcher thematic coding. It is also argued to outperform other approaches such as latent dirichlet allocation (LDA), as it does not use preconceived numbers of codes and instead uses a machine learning algorithm (Mahr, et al. 2019). Third, Leximancer has shown to be useful in synthesising literature in services marketing (Mahr, et al. 2019) as well as forming definitions in other related areas such as social marketing (Dann, 2010).

To begin the process of using Leximancer to assist with creating a synthesised definition, we first scanned the 310 papers included in the systematic review which provided a definition of consumers experiencing vulnerability. Of the 310 papers, 43 included a

definition, which were then included in the dataset for analysis. Further critical analysis of the 43 papers with definitions of consumer vulnerability identified that 25 were underpinned by different components of Baker et al.'s (2005) definition. Other papers used definitions developed by Smith and Cooper-Martin (1997), Andreasen and Manning (1990) (x2), Filgueira and Peri (2004), Overall (2004), Windschitl, Martin and Flugstad (2002) and Stobenau et al. (2013). The remaining papers that did not identify the use of one of the definitions in their entirety or a basis for a definition, developed their own definitions. The diversity of the definitions identified in this step of the process provided further support for the need to develop a synthesised definition. The second step of the Leximancer process included uploading the 43 identified definitions to a word document in preparation for analysis. In the third step, the Leximancer analysis output was interpreted using theory and prior research to ensure that the developed definition was not only synthesised by Leximancer but underpinned by theory and concepts as called for in the literature (Hill & Sharma, 2020).

Results

Analysis was undertaken on the extracted data to address the two research aims. We begin by addressing research aim one, which focused on previous research examining consumers experiencing vulnerabilities.

Addressing Research Aim 1: To describe the current state of play of consumers experiencing vulnerability research

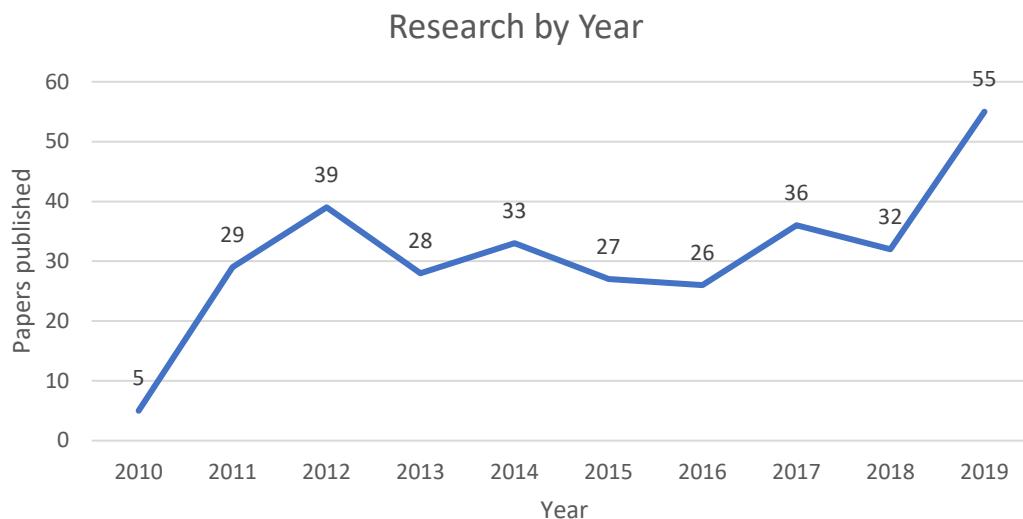
In addressing research aim one, we first analyse the research conducted by year, followed by the vulnerability classification. A deeper investigation of the vulnerability classification by geographical region, vulnerability length and ecosystem level, and discipline focus follows. Next, an analysis of the outcome variables examined in relation to consumers experiencing vulnerability segments is presented to provide an in-depth understanding of the

factors previously investigated for this population. Finally, the methodological and conceptual approaches are discussed.

Research conducted by year

Research conducted on consumers experiencing vulnerability has progressively increased between 2010 and 2019, with noteworthy jumps from 2010 (n=5) to 2012 (n=39) and 2018 (n=32) to 2019 (n=55) as shown in Figure 2.

Figure 2. The number of studies per year



Vulnerability Classification

To identify the vulnerable segments which have/have not been examined, vulnerability classification data were analysed. In the higher-level analysis (classification according to Baker and colleagues, 2005), most research was conducted for consumers considered vulnerable as a result of biophysical factors (70.3%; see Table 7). This is followed by psychosocial factors (15.2%). Little research has been conducted on consumers classified as vulnerable due to external conditions (3.5%), individual states (4.5%) or across multiple classifications (6.5%).

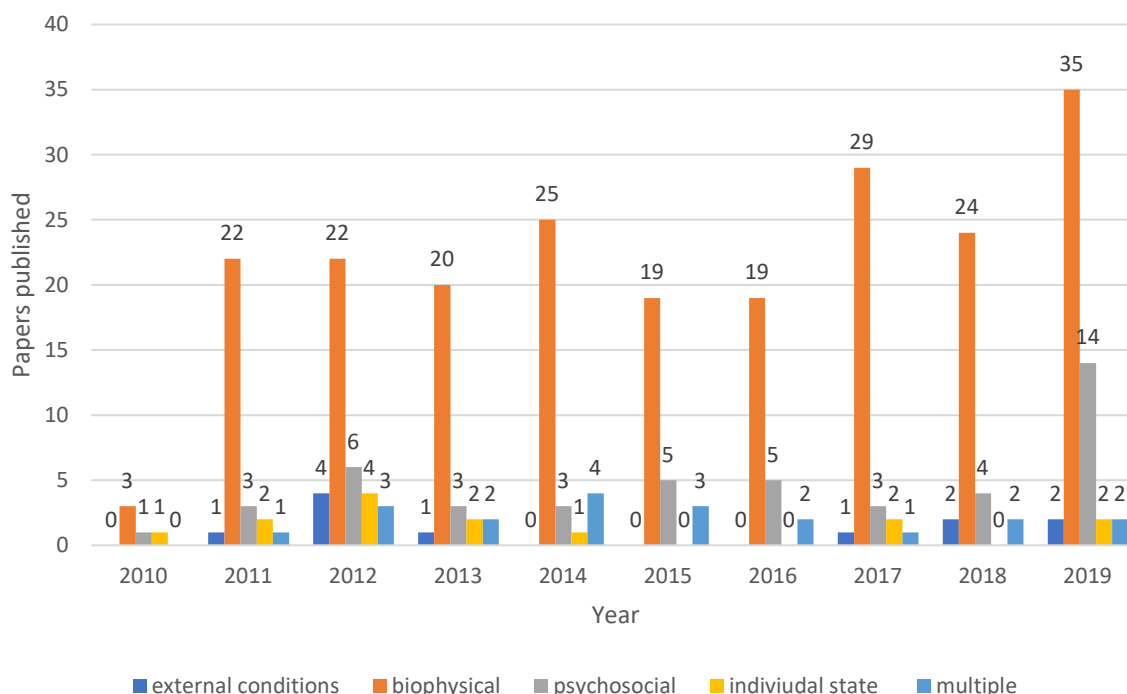
INSERT TABLE SEVEN HERE

When examining the more specific classification type (guided by Rosenbaum et al., 2017), the vulnerability consumer segments most researched were those who are vulnerable due to economic factors (12.6%), older age (12.6%), youth (12.3%) and medical conditions (11.9%; Table 8). Little research has been conducted into consumers classified as vulnerable due to their gender (0.6%) and geographic remoteness (0.6%).

INSERT TABLE EIGHT HERE

When examining the segment focus over the ten years and taking the high level classification approach (Baker et al., 2005), Figure 3 shows research examining vulnerability due to external conditions has decreased over time, whilst research into vulnerability caused by internal characteristics (biophysical and psychosocial) has increased, especially between 2017 and 2019.

Figure 3. Research by classification type over ten-year period



Further analysis on segments of consumers experiencing vulnerability

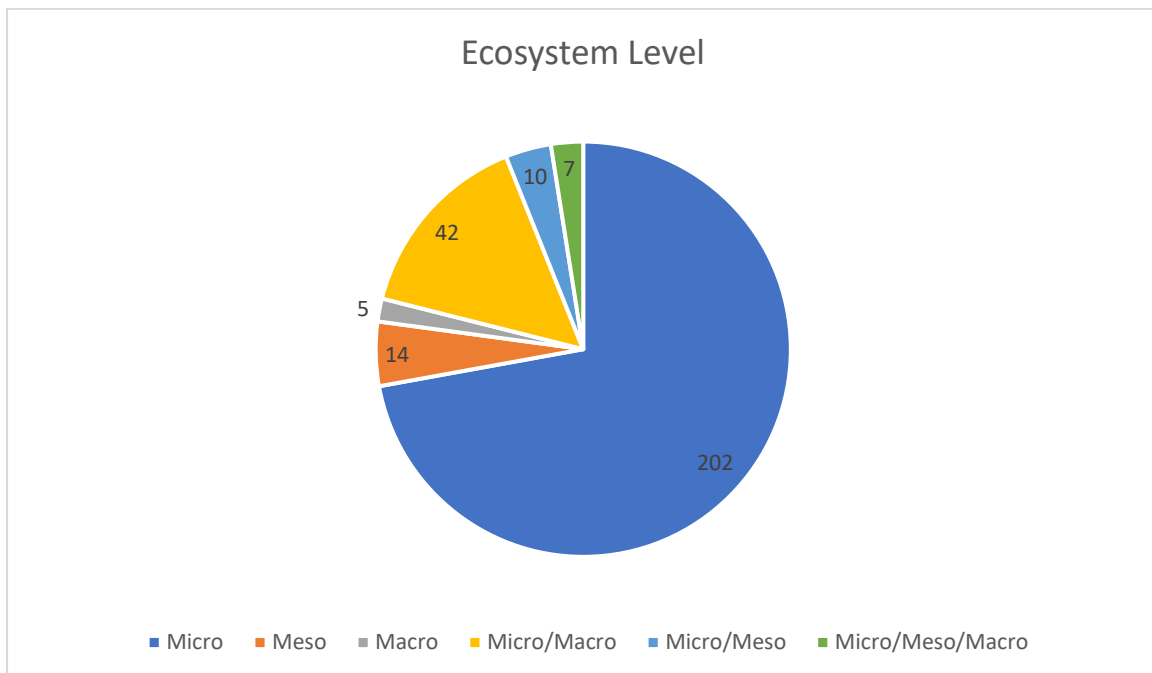
The length of vulnerability, level of ecosystem, geographical location, level of development and discipline were also investigated to add depth in understanding of the types and ways consumers experiencing vulnerability have and have not been examined.

1) Vulnerability Length and Ecosystem Level

261 papers investigated ongoing vulnerability. For example, people receiving welfare payments, women or older citizens. Whilst, 49 papers examined temporary consumer vulnerability. Examples included pregnant women, emergency patients with limited health literacy and customers who purchase drugs.

In terms of the ecosystem levels examined, 202 papers took a micro approach by examining the individual consumers experiencing vulnerability. 14 studies examined from a meso, organisational level, and only 5 studies examined from a macro level. 59 studies took a mixed approach examining multiple levels. These included 42 papers from a joint micro/macro level, 10 from a micro/meso and 7 from a micro/meso/macro level (Figure 4).

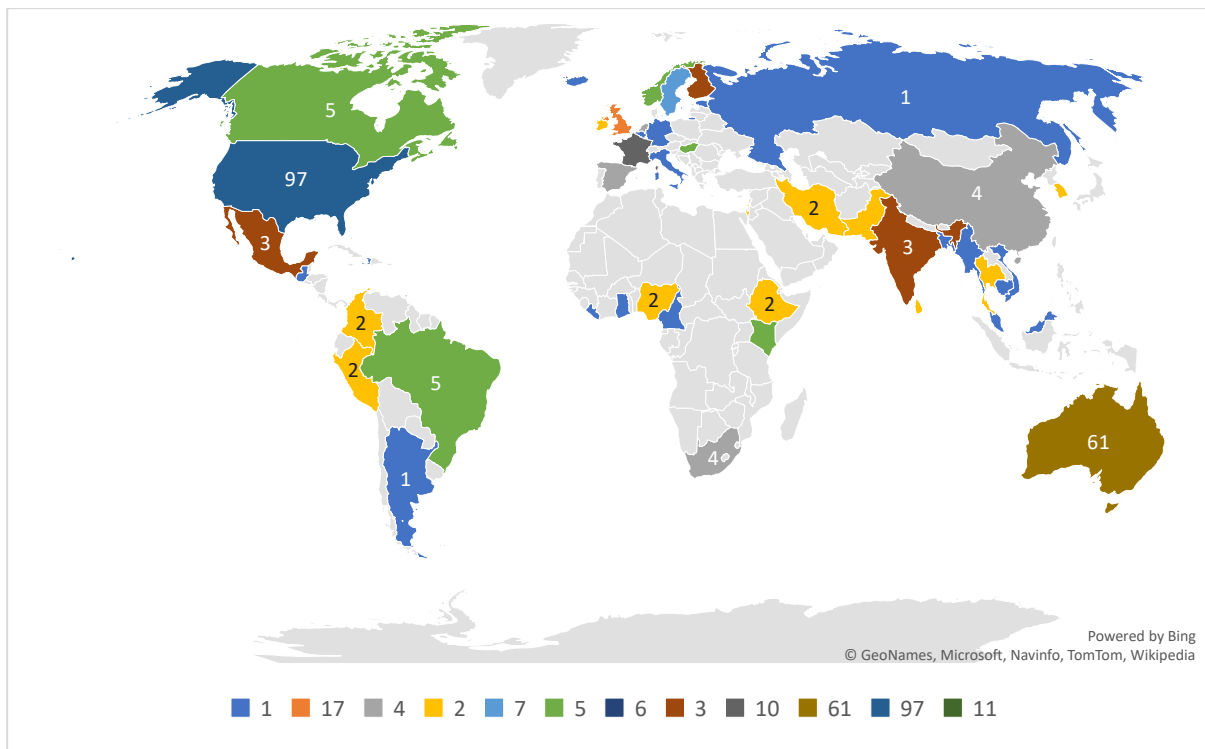
Figure 4. Ecosystem classification distribution



2) Geographic Area and Level of Development

The majority of research had been conducted in developed countries (81.03%). Only 18.65% of research had been conducted in developing countries and 0.32% in both a developing and developed country. In terms of the specific geographical areas the studies have been conducted in, the locations where the most studies have been conducted are the United States (97; 31.3%), Australia (61; 19.7%) and United Kingdom (17; 5.5%). Only 11 studies have been conducted in more than one geographical location (3.5%). The dispersion of research across geographical regions is presented in Figure 5. These findings reveal research in both developing countries and cross-country examinations is scant.

Figure 5. Geographic regions vulnerable research has been conducted in



Further examination was conducted through a crosstab's analysis between the specific classifications of consumer vulnerability and the geographic development status of the research, to identify the segments of focus in different regions (see Table 9). From the analysis, consumers classified as vulnerable due to their sexual orientation have been

examined mainly in developed countries while those vulnerable due to their youth have been examined in both contexts.

INSERT TABLE NINE HERE

3) Discipline

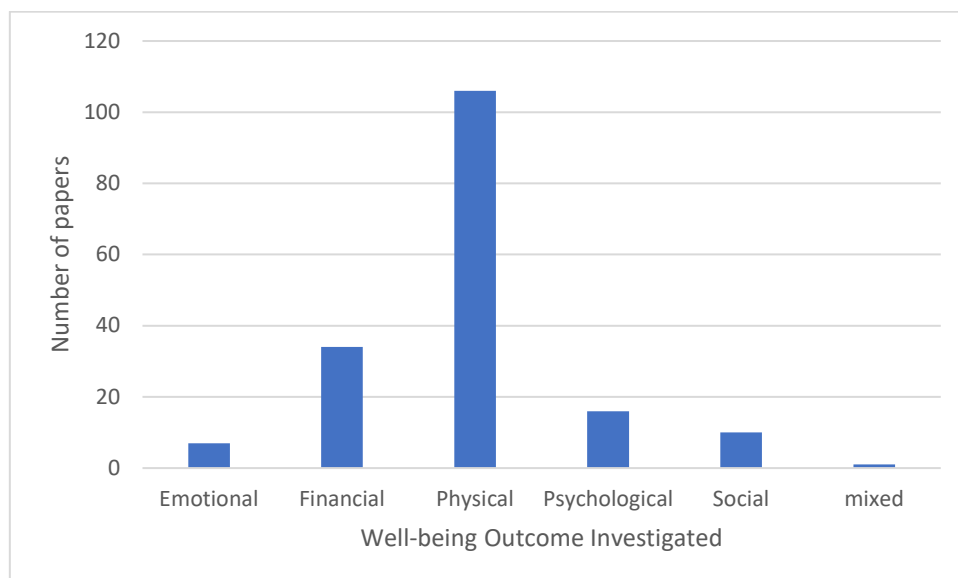
From the analysis, research into consumers experiencing vulnerability has largely been focused in the Health and Marketing disciplines. Little research has been conducted across disciplines, indicating a multi-disciplinary dearth (Table 10).

INSERT TABLE TEN HERE

Well-being Outcomes Examined in Relation to Consumers Experiencing Vulnerability

The data were analysed to identify the well-being outcomes examined for consumers experiencing vulnerability. From the data, 174 papers examined a well-being outcome with the primary focus being on physical well-being (60.9%). Little research examined emotional (4.2%), social (5.7%) and psychological (9.2%) well-being across the consumers experiencing vulnerability segments. There was also limited investigation into multiple/mixed well-being outcomes in one study (0.6%; Figure 6).

Figure 6. Research distributed by well-being outcome type



Further analysis was conducted through crosstabs between 1) the specific classifications of vulnerability and 2) well-being outcomes to identify which have been examined for each segment (see Table 11). Only those studies which examined a well-being outcome were included in this analysis. Through this examination, the different well-being outcomes that have or have not been examined for the consumers experiencing vulnerability segments can be identified. For consumers classified as vulnerable due to their economic situation, research has been conducted into physical and financial well-being outcomes however, not emotional, psychological or social. For consumers experiencing vulnerability due to a medical condition, research has not been conducted into psychological well-being and only limited research conducted into emotional, financial and social well-being outcomes. For consumers experiencing vulnerability due to geographical remoteness, physical well-being has been examined, however, no other well-being outcomes have been investigated.

INSERT TABLE ELEVEN HERE

The Methodological and Conceptual Approaches Employed to Examine Consumers experiencing vulnerability

The guiding frameworks, methodology, measures and sample of each study were examined to provide understanding of how consumers experiencing vulnerability have been examined and measured in previous studies. 81 papers (26.1%) identified theories, frameworks or models (TMF) which were utilised to guide the development of the studies. These TMF's were diverse in scope however, those utilised most frequently included Ecological systems theory (n=2), Erikson life cycle theory (n=2), Protection Motivation Theory (n=2), a risk theory (n=3), SERVQUAL (n=2) and Theory of Planned Behaviour (n=4). Other marketing theories which were used included Self-determination Theory,

Persuasion Knowledge, Nudge theory, Elaboration Likelihood Model and Peripheral Route Processing.

When examining the methodological approaches of the 310 studies, it was found that most papers employed a survey (35.2%) or interview (21.6%) approach with only 16.45% employed a mixed methods approach (Table 12).

INSERT TABLE 12 HERE

A crosstabs analysis was performed for the specific classifications of vulnerability and the methodology used in each study. This identified the different types of methodologies being utilised to examine different segments. (see Table 13). The analysis indicates very little experimental, field or observation work has been conducted across any consumers experiencing vulnerability segments, whilst nearly all segments have been examined using surveys.

INSERT TABLE 13 HERE

When examining the measures utilised in the studies, 179 papers listed the measures used. However, there were no consistent measures utilised in multiple studies. Finally, the included studies involved 1,600,586 participants. The smallest individual sample size included 1 and this occurred for four studies investigating older adults, disabled individuals and children who have pneumonia, utilising case study, content analysis and mixed methods. The largest sample size involved 512,891 participants which examined individuals with diabetes utilising a survey approach. It is important to note that the sample sizes are likely a result of the availability to access the vulnerable segment being examined and this also influences the methodology employed.

Addressing Research Aim 2: To identify how consumers experiencing vulnerability have previously been defined in the literature and develop a succinct, up-to-date definition of consumers experiencing vulnerability.

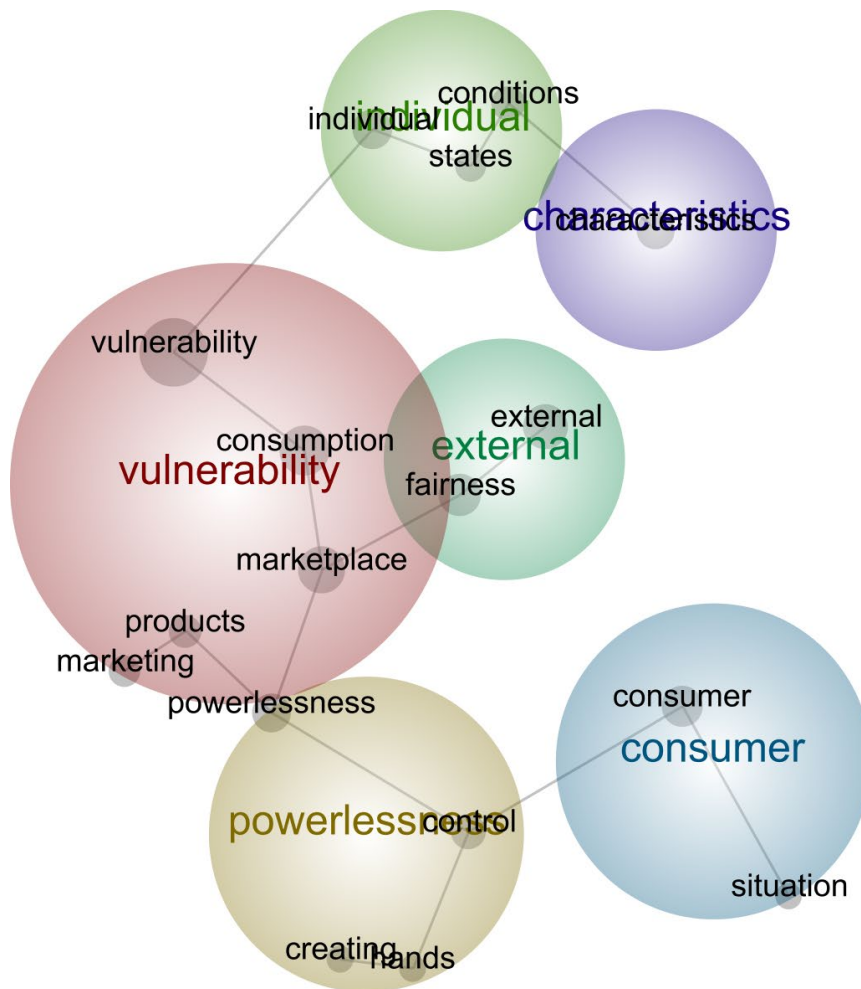
In addressing research aim two, we examine how consumers experiencing vulnerability have previously been defined in the literature. This is achieved by examining all definitions which were utilised in the studied papers and analysing these definitions in Leximancer to then develop a succinct, up-to-date definition of consumer vulnerability which is grounded in literature and theory. To gain a deeper understanding of the consumers experiencing vulnerability definitions in the literature and to formulate our own definition, 1) key concepts were identified through Leximancer analysis, 2) a definition was developed from the insights provided by the Leximancer analysis and 3) the proposed definition was grounded in the literature by examining the dimensions of the definition in relation to the consumers experiencing vulnerability literature.

1) Identifying Key Concepts Through Leximancer Analysis

The Leximancer analysis identified six key concepts across the definitions of consumers experiencing vulnerability (consumer vulnerability) in the literature. These were vulnerability, consumer, external, individual, characteristics, and powerlessness (see Table 14 and Figure 7).

INSERT TABLE 14 HERE

Figure 7. Leximancer Consumers Experiencing Vulnerability Definition Concept Map



2) Develop a Definition of Consumers Experiencing Vulnerability

From the concepts identified in the Leximancer analysis, the following definition integrating the key themes is proposed:

Consumers experiencing vulnerability refers to situations where an individual's characteristics such as states and conditions and/or external factors can lead to a consumer experiencing a sense of powerlessness in consumption settings which are unique and subjective to the individual.

It is important to note that in the definition we have included that consumers experiencing vulnerability is unique and subjective to the individual. This inclusion is due to the systematic review where it became evident that vulnerability was a result of an

individual's lived experience and as a result, varies across individuals and groups. That is a consumer may be vulnerable in one service experience but not another.

3) Providing Insight as to the Dimensions of the Definition and Grounding in Vulnerability Literature

Next, we review the dimensions integrated into the definition and their underpinning sub-dimensions (from the Leximancer results) within the context of previous vulnerability literature. This provides a grounding of the proposed contemporary and synthesised definition of consumers experiencing vulnerability within relevant literature.

Vulnerability. The first key theme is vulnerability which is represented by the sub-dimensions of consumption, marketplace, products and marketing. By examining the sub-dimensions identified in the Leximancer and related literature, we suggest this represents vulnerability stemming from exchanges (Lee & Soberon-Ferrer, 1997), which are central to consumption, marketplaces, products and marketing, whereby a consumer is at some type of disadvantage. An example of this would be when immigrant consumers seek out and use healthcare services (Davis, Mohan & Rayburn, 2017) where the individuals are considered as vulnerable due to their immigration status in the medical service exchange.

This notion of exchange underpinning the sub-dimensions is supported by Dann (2010) whose analysis of the definitions of marketing identify exchange being an aspect central to contemporary practice and understanding of the discipline. Further theoretical support for exchange underpinning vulnerability and its related sub-dimensions can be drawn from social exchange theory (Lee & Soberon-Ferrer, 1997), which proposes cognitive, physical, psychological, social or economic asymmetries among individuals result in different levels of power (or powerlessness, a theme discussed shortly), which impact to exchange

relationships. In the case of consumers experiencing vulnerability, rather than leading to mutually beneficial exchange relationships, these asymmetries result in social power relationships which hinder components of consumption experiences.

Consumer. The second key theme identified is consumer, representing the sub-dimensions of consumer and situation. Examples of consumers could include (but are not limited to), pregnant women (Hamzehei, Kazerani, Shekofteh & Karami, 2018) or children under 6 (Kaljee, Ann, Minh, Batmunkh & Kilgore, 2011) in different service encounter situations. The results illustrate situation as a key sub-dimension of consumer which is consistent with previous theorising in the vulnerability literature. An example of a situation would be youth consumers who live in rural areas attempting to access health services (Orlowski, Lawn, Antezana, Venning, Winsall, Bidargaddi & Matthews, 2016). In this situation, the youth consumers are vulnerable due to living in a rural location and having a lack of access to health providers.

In particular, this aligns with Morgan, Schuler and Stoltman (1995) consumer-situation typology of consumer vulnerability that identified four consumer groups (physical sensitivity, physical competency, mental competency, and sophistication level) and five situational alternatives (material environment, decision maker, consumption interval, usage definition, and temporary conditions). When considering the consumer sub-dimension of situation and the theoretical support of the consumer-situation typology of Morgan et al. (1995), it is suggested vulnerability can often be situation-dependent (or context-dependent). That is the situational or contextual factors relating to the consumer and the consumption experience can affect the formation of vulnerability and is subject to the influence of consumers (in)ability to interact in marketplace situations.

External. The third concept identified is external, which is underpinned by external and fairness. This element of vulnerability definitions outlines the external structures or

experiences which may impact a consumer. This relates to the external factors which facilitate or hinder a consumer experiencing vulnerabilities consumption in the marketplace. For example, low-income earners could experience vulnerability due to the difficulty in accessing essential services as a result of marketplace structures (Pardasani & Bandyopadhyay, 2014). As Baker et al. (2005) point out, these external structures can include subordination or segregation in the marketplace. These external factors then relate to the level of marketplace fairness which is experienced by consumers, and the factors which either facilitate equality or inequality. The sub-dimension of external, fairness, is an important aspect of vulnerability as this uncovers the lack of impartial or just treatment, of segments of the market due to favouritism towards others or discrimination. Indeed, discrimination (a lack of fairness) has been highlighted as an important factor in the vulnerability literature (Rosenbaum, Seger-Guttmann & Giraldo, 2017), supporting fairness as an important sub-dimension for external.

Individual. The fourth key concept, individual, is represented by the sub-dimensions of states, conditions and social. Drawn together, these sub-dimensions of individual are the factors which underly and can potentially contribute to vulnerability, which we expand on next. An example of this would be a consumer with an individual state or condition that creates their experience of vulnerability such as an individual cognitive disability (Eskyte, 2019). This could for example, lead to this individual being vulnerable when interacting with a service provider such as a bank offering a house loan and their ability to process the service offering. The first sub-dimension, states can include states of the mind (e.g. emotional and psychological) and body (e.g. health) which can be temporary or short-term. An example of a state would be a new mother who is breastfeeding and may have low self-efficacy (Wang, Guendelman, Harley & Eskenazi, 2018). As a result of this state, a mother may seek out assistance from a breastfeeding support service provider. Further, this can refer to the varying

‘state’ of vulnerability a consumer can experience. In this instance, vulnerability could be viewed as a continuum whereby the degree or intensity of vulnerability experienced can be low, medium or high.

The second, sub-dimension is conditions, which like states, also includes biophysical aspects, however, in contrast to states, conditions are long-term or in some cases permanent. An example of a condition would be an adolescent who is deaf (Goldsteing, Eckhardt, Joyner-Creamer, Berry, Paradise & Cleland, 2010) who maybe be disadvantaged in certain service encounters such as viewing an entertainment program where closed captions are not provided. Previous consumers experiencing vulnerability studies have also highlighted the importance of chronic medical conditions such as cancer and diabetes contributing to vulnerability (Wunderlich, et al., 2019). These conditions which impact consumers are often long lasting and have persistent effects socially and economically, ultimately having a considerable impact on their quality of life. Social, is the third sub-dimension and refers to aspects such as social norms, peer-to-peer influences or social characteristics that may lead to discriminatory or predatory actions by organizations (Rosenbaum et al., 2017). For instance, consumers could become vulnerable as they become increasingly excluded from various social spheres of everyday life.

Characteristics. The fifth concept is characteristics. An important observation is that definitions of consumers who experience vulnerability use characterise or characteristics (plural) rather than characteristic (singular). The continuous expression of “characteristics” not “characteristic” suggests that multiple factors often contribute to a consumer becoming or experiencing vulnerability. An example of characteristics contributing to a consumer experiencing vulnerability would be an elderly consumer, from an ethnically diverse background, with a mental health illness who is at-risk for high alcohol consumption (Jimenez, Bartels, Cardenas, Dhaliwal & Alegria, 2012). In this example, there are multiple

different characteristics contributing to an individual being considered to experience vulnerability.

Powerlessness. The final concept identified in the analysis of vulnerability definitions is powerlessness, which is represented by the sub-dimensions of control, hands and creating. An example of this would be an individual who is homeless due to their mental health condition and is powerless to engage with service providers to change their situation (Scivoletto, Da Silva & Rosenheck, 2011). Control can be considered in two ways. First, control can refer to a pre-existing lack of control (power) in a consumption situation. For example, a young adult may have a lack of power in a service encounter with a financial provider due to their lack of experience. Alternatively, circumstances in the marketplace can change which result in a loss of control for consumers, making them vulnerable. Theoretical support for powerlessness via lack of control can be drawn from the self-determination theory component of autonomy and competence. As suggested in self-determination theory, individuals with low levels of autonomy (i.e., control over their independence and freedom of choice) and competence (i.e., capability and mastery of skills) also experience lower levels of well-being (Engström & Elg, 2015). Transitioning this thinking to vulnerability, powerlessness and lack of control for consumers is a sound inclusion into understanding and defining consumers experiencing vulnerability. The second sub-dimension of powerlessness, hands, is also related to the notion of control, whereby vulnerability occurs when control is “not in an individual’s hands” (Baker et al., 2005), resulting in reliance on the support of others. An example of this could be a person with a mental illness (Ezell, Siantz & Cabassa, 2013) no longer being in control of their medical decisions and having their health provider control their treatment path with no consumer input. The third sub-dimension of powerlessness, creating, encapsulates control and when it is out of the hands of the individual, accumulating into a powerlessness. In the previous example, this would involve

the control being in the hands of the health provider, so that the individual potentially experiences a feeling of being powerless.

Discussion

Understanding the nuances of various consumer segments is critical to advancing and supporting any services and marketing initiative. Guided by and expanding on the work of Baker et al. (2005), Hill and Sharma (2020) and Rosenbaum et al. (2017), along with 310 studies on consumers experiencing vulnerability, this systematic review offers rich, detailed insight regarding the consumer segments examined in vulnerability research from 2010-2019. In turn, we provide a research agenda for future examination. It is important to remember however, that these results should be interpreted in line with the constraints of the search terms utilised in this study. It was required that papers had the words “consumer, customer or shopper” present in the title or abstract to be included in the research. This may mean some papers which examined a consumer segment that is considered vulnerable, may have been overlooked as they did not utilise that terminology. However, it is important to note that just under 17,000 papers were originally downloaded, indicating that a wide range of papers were examined to provide a thorough overview of the topic.

In addressing research aim one and identifying a research agenda for future study, it was identified that most vulnerability studies (81.03%) identified utilising the search criteria of the study have been conducted in developed nations. Three countries—the United States, Australia and United Kingdom—accounted for over half (56.2%) of research output between 2010-2019. This geographic segmentation trend presents some notable theoretical and practical implications. While the importance of context in relation to vulnerability (Baker et al., 2005) and recent services research has been established (Beirão et al. 2017), our study demonstrates a distinct lack of geographic contextual diversity in relation to where the studies have been produced. Although much of the TSR rhetoric calls for addressing ‘wicked

problems' (e.g., poverty) for consumer segments at 'bottom of the pyramid' (BoP) (e.g., Fisk et al., 2016), our results demonstrate that very little has been conducted in the geographic proximities of the world where these problems are most exacerbated. Moving forward, as encouraged by Baker et al. (2005), supporting research in various geographic contexts is essential.

The findings of the systematic review demonstrated a somewhat steady growth of consumer vulnerability research from 2010-2019. Together the Health and Marketing disciplines accounted for 68% of the studies published. While the increase of consumer vulnerability research from 2010-2019 is a positive trend, the lack of the discipline diversity is less so. The findings from our systematic review contrast with researchers' calls (e.g. TSR) for the cross pollination of multiple disciplines in generating robust consumer vulnerability research. Like the geographic production of research, this finding has implications in relation to theoretical homogeneity. Reflected in the context of this study, silos of discipline segments, rather than discipline cross-segments, appear the norm in producing consumer vulnerability research. Despite the intentions from academics and agendas such as that of TSR, it appears consumer vulnerability, may still face interdisciplinary research challenges.

Findings indicate the most frequently studied consumers experiencing vulnerability groups were those experiencing financial difficulties and the elderly. Studies on vulnerable youth consumers and those suffering from physical medical conditions follow closely—collectively accounting for almost half of the studies conducted. Echoing findings in relation to research production, it is evident that many consumers experiencing vulnerability segments are under-researched. For example, disability, sexual orientation, sexual exploitation and gender segments represent a proportionally low number of studies overall. This presents the opportunity for investigation into how these segments can be supported in service encounters.

Other notable findings relate to temporal and self-selection elements in vulnerability research. Our findings demonstrate a skew in favour of studies focused on ongoing vulnerability, accounting for 84% of published papers. Further, we note that some of the studies included in our review studied segments of consumers that may have self-selected to place themselves in a vulnerable state. In contexts where consumers have self-selected to place themselves in a vulnerable position, the time period in which they experience the vulnerability can be temporary or finite. For example, women are pregnant for nine months. The shortage of studies in these contexts represent fruitful opportunities to expand consumer vulnerability research.

In addressing research aim two, this systematic review also developed a more contemporary, concise definition of consumers experiencing vulnerability underpinned by theory and literature. As evidenced in the results, 43 papers of the 310 in the literature included definitions, however there was a lack of consistency regarding their underpinning and wording. Furthermore, the most utilised definition, Baker et al. (2005), was used by 25 papers (out of the 43 the included a definition), however, it was rarely used in its entirety, which we argue, in line with similar sentiments of Hill and Sharma (2020), this may be due to its lack of theoretical parsimony. The definition proposed in this paper takes a step forward by not only synthesising the fragmented use of other definitions in the literature but also, it is underpinned and explained through theories such as social exchange theory (Lee & Soberon-Ferrer, 1997), consumer-situation typology (Morgan, et al. 1995) and related conceptual work. It is further, a more concise definition being only 34 words long, compared to previously used definitions such as Baker et al. (2005) which was 82 words. It is also drawn from multidisciplinary research and as such, although the proposed definition and previous definitions such as Baker et al.'s (2020) have similar key concepts included, the proposed

definition differs in that it is more concise, applicable to multidisciplinary research and in turn, has increased utility.

The proposed definition also extends the more contemporary work in consumer vulnerability including that by Hill and Sharma (2020), who developed a framework of consumer vulnerability, which identified the antecedents, contexts and consequences. Instead, while the proposed definition in this paper, utilises similar ideas to Hill and Sharma (2020), it focuses on the point in time of consumers experiencing vulnerability rather than the entire customer journey, and defines what it means for consumers to experience vulnerability whilst acknowledging that the experience is subjective and unique to the individual.

It is proposed that with the development of the proposed definition being guided by multi-disciplinary research and underpinned by theory, that moving forward, a greater range of multi-disciplinary papers may employ this definition and propel research on consumers experiencing vulnerability forward. It is further proposed that from the results of our study that future research should look to:

- 1) Employ the proposed definition when studying consumers experiencing vulnerability across disciplines.
- 2) Conduct greater research in various geographic contexts and across both developed and developing nations which will assist with the TSR calls for addressing “wicked problems”.
- 3) Undertake research utilising multi-disciplinary teams across the unresearched areas identified in our study utilising a multi-dimensional approach to examine how these segments can be better supported in service encounters. These segments include consumers experiencing vulnerabilities due to disabilities, sexual orientation, sexual exploitation and gender segments (please see tables in Results section for a detailed list).

- 4) Conduct greater examination into experiences of vulnerabilities which occur as a result of self-selection where the time period for experiencing vulnerability is temporary or finite. Such as, women who are pregnant.
- 5) Employ a wider range of methodologies (e.g. mixed methods, ethnographic, qualitative) to examine consumers experiencing vulnerabilities.

Implications

The current study contributes to the consumers experiencing vulnerability literature in four ways. First, this study develops a definition of consumer vulnerability which draws on previous multi-disciplinary definitions. It was previously identified that there was little consensus about what constitutes consumer vulnerability or its consequences for consumers (Hill & Sharma, 2020). As such, the current study provides a succinct definition which begins to address these calls and assists in providing a theoretical founding for moving service research into consumers experiencing vulnerability forward.

Second, the systematic review extends work by Baker et al. (2005), Rosenbaum et al. (2017) and Hill and Sharma (2020), by classifying previous consumers experiencing vulnerability literature by segment type. Specifically, 17 classifications are identified. In classifying the previous literature, the study contributes by identifying which segments are under-researched and provides a robust consumer vulnerability typology for future investigations. This will allow service marketing researchers to identify which segments need to be examined further.

Third, this systematic review details the focus of previous consumer vulnerability research in relation to the geographical proximity, level of development, ecosystem level and vulnerability length examined in previous literature. This provides a significant contribution by pinpointing where further research is needed and providing synthesised tables future

researchers can use to identify what area of consumer vulnerability research their work is contributing to.

Fourth, this research divulges the well-being outcomes which have been examined as well as the conceptual and methodological approaches employed to gain this understanding. This contributes to TSR by uncovering that certain well-being outcomes have been examined sparingly across segment types, providing another opportunity for future service marketing research. Further, synthesised tables are again developed, allowing future researchers to identify how their segment of interest has been examined previously and in turn, how their research can enhance and add to the consumer vulnerability body of work.

Finally, some broad level insight emerges and should be noted in line with the previous implications relating to the service ecosystem. Conducting research on consumers experiencing vulnerability is complex (Hill & Sharma, 2020). It requires a refined sense of nuance. To draw from Sen's (1999) work on human capability, consideration should be made regarding the heterogeneity of humans and the freedom (or lack of) they have, allowing them to develop their capability. Regarding our proposed definition, for example, service scholars should carefully consider in relation to which component of vulnerability—states and conditions and/or external factors—may be most critical to understand in relation to a particular consumer group and service setting. For instance, research in developed countries, which is most prolific (recall Figure 5), that have stable external environments and well-resourced government systems may have the 'luxury' of being able to focus on individual (micro-level) consumer states or conditions impacting vulnerability. Whereas in developing countries, where research is sparse (again recall Figure 5), before focusing on individual states and conditions impacting consumer vulnerability, consideration could be given to external environmental factors that exert greater control over individuals (Gondard-Delcroix & Rousseau, 2004) in the macro-level of service ecosystems (Beirão et al. 2017), where

research is also deficient (see Figure 4), as this may be a greater contributor to consumers experiencing vulnerability in such service settings. It is therefore suggested that service scholars consider a service ecosystem approach and identify where within the system (macro, meso and/or micro) factors are contributing to consumers experiences of vulnerability and/or hampering their control in service settings.

Limitations and Future Research Directions

Although providing significant insights for the area of consumer vulnerability research, this systematic review, has limitations. First, it was limited by the inclusion and exclusion criteria applied including only peer-reviewed, full-length articles published in English between 2010 and 2019. In applying this criteria, theoretical papers, conference papers, pilots, pre-tests and abstracts were excluded. It was also limited by the search criteria which may have resulted in some papers which examined consumers experiencing vulnerability not being included as they did not include the search word or were not referred to as consumers, customers or shoppers in the title or abstract of the papers. For example, papers examining vulnerability outside of consumption in service experience contexts, such as climate risk and environmental science research, may have been overlooked. Although being limited by the application of the criteria and search terms, over 300 papers were included in this review which allows for significant insight to still be gleaned.

The systematic review identifies several areas for future research. Through the tables developed in the results section, the segments of consumers experiencing vulnerability which have been under-researched are evident, such as those vulnerable due to gender or geographical remoteness. Further research should look to address these areas and apply the methodologies identified for each segment in the systematic review. To enhance the variety of conceptual and methodological approaches, future research should also be conducted

cross-culturally and utilising multi-disciplinary teams. Doing so would help support research from less developed countries. The deficiency of research into multiple types of consumer vulnerability offers a clear avenue of future research but can be somewhat difficult to tackle from a theoretical perspective. We, therefore, see TSR's call for interdisciplinary research as essential for supporting greater theoretical scope and capacity needed for undertaking this challenging, but necessary work. This research would help advance a more robust body of research as forwarded in services agendas like TSR. Finally, further research should look at extending our understanding of consumers experiencing vulnerabilities by identifying if there are any specific influence of other factors such as personality traits (resilience) or social support that impact on one's likelihood of experiencing vulnerability in a service experience.

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