B2C MARKET SEGMENTATION: A SYSTEMATIC LITERATURE REVIEW

Anghel Tudorel COZMA, Smaranda Adina COSMA
Bábes Bolyai University of Cluj-Napoca, Romania
anghel.cozma@ubbcluj.ro, smaranda.cosma@ubbcluj.ro

Abstract:

The article provides a systematic literature review of market segmentation in the business-to-consumer (B2C) sector. Market segmentation is a critical component of strategic marketing, as it enables companies to identify and target specific groups of consumers with relevant products and services. The main objective of this review is to identify the most commonly used and effective methods of segmenting consumer markets and to explore how firms have adapted to the changing technology landscape. Additionally, the review aims to identify areas that have received less attention in research and to develop a conceptual framework for harmonizing and expanding previous research aimed at segmenting consumer markets over the past ten years. Through this review, it is evident that market segmentation is a complex process that uses multiple variables and sub-variables. This systematic literature review provides valuable insights into market segmentation in the B2C sector and contributes to advancing the fragmented literature on this topic.

1. INTRODUCTION

Market segmentation is one of the key elements of strategic marketing (Dolnicar, Grün, & Leisch, 2011 p. 6). Segmentation is a complex process, a tool that helps companies select a target market for a particular product or service and design an appropriate marketing mix (Dolnicar et al., 2011, p. 6). Market segmentation is the basic pillar of strategic marketing (Kotler et al., 2020, p. 200). Market segmentation is also essential for success in making marketing decisions. Successful companies run their businesses based on segmentation (Gary et al., 2017, p. 61). Market segmentation is always at the heart of successful marketing, because segmentation has the greatest impact on marketing decisions (Dolnicar et al., 2011).

Segmentation of the market, although it does not yet have rules to make it perfect, offers value to companies being considered part of modern marketing for over 40 years (Mora et al., 2021).

Regardless of the sector, there are many differences between buyers in any market. These differences manifest themselves in their desires, the resources they have at their disposal, the locations where they are, or where they live, their buying attitudes, or with respect to certain products or services, and last but not least the practices or habits that individuals in a given market manifest. In order for companies to be as efficient as possible, most of the time they cannot address the entire market in which they operate and usually call, at a certain level of market segmentation (Lloyd C. Harris, 2020, p. 199). By segmentation, enterprises divide a large market into smaller groups of customers, groups that can be reached as efficiently as possible, with the resources they hold, but also taking into account the objectives that companies propose to themselves. Thus, the products and services they will offer will correspond as accurately as possible to the needs and desires of individuals in that targeted segment (Dolnicar et al., 2011).

Companies use different variables in the segmentation of consumer markets. Many of these segmentation methods use the combination of multiple variables and sub variables, thus developing complex segmentation processes. In the literature of recent years there has been a growing trend to

develop the segmentation of consumer markets by introducing and combining more and more variables. Such a process of high complexity combined with the increasing growth of consumer markets in recent years makes it absolutely necessary to systematically review the literature (Mora Cortez et al., 2021).

The main objective of the paper is to (1) discover areas that have received less attention in research and integration of commonly analyzed consumer market segmentation concepts over the past ten years. Secondly, the paper aims (2) to identify from the literature the most used and effective methods of segmentation of consumer markets. Last but not least, the development of technology coupled with the growth of consumer markets makes it increasingly interesting to see (3) how firms have evolved through the segmentation processes used, adapted to the technology age. Thus, it is imperative to develop a conceptual framework for harmonizing and expanding previous research aimed at segmenting consumer markets over the last ten years. One way to explore how research efforts have addressed the field of segmentation and how it has changed over time is to conduct systematic reviews of the literature. This is particularly relevant to the advancement of literature, which is rather fragmented in terms of the consumer market segmentation process (B2C), limiting progress over the past decades.

2. SEGMENTATION OF THE B2C MARKET

Market segmentation is defined as a process by dividing a large market into smaller segments that can be achieved more efficiently and effectively with products and services that meet the needs of single market groups. Segmentation can be achieved for several categories of markets (Kotler et al., 2020, p. 200):

- Segmentation of consumer markets (B2C);
- Segmentation of business markets (B2B);
- Segmentation of international markets.

The segmentation approach arises as a result of the philosophy of the market structure in which the company operates. From this perspective, segmentation represents a compromise between the mistaken assumption that all buyers that make up a market are identical and the non-economic one, according to which each individual is unique as a customer and for the consumer a specially tailored marketing effort is needed in the form of an individual mix. An effective segmentation strategy can bring remarkable advantages to the organization, as it can bring the company to the position to achieve the desired position, or improve its position in the market, thus making it much more efficient in relation to the competition (Kotler et al., 2020, p. 200). In particular, a company that has a good segmentation strategy will be better informed about the market in general, loyalty and customer behavior, and last but not least will be able to build some barriers to the detriment of certain competitors in the market. However, not all companies have the same vision of market structure and segmentation, which also distinguishes them in terms of marketing strategy for market approach. The specialized works contain three fundamental options that can be followed by companies (Kotler et al., 2020, p. 200):

- undifferentiated or mass marketing;
- differentiated marketing;
- focused or concentrated marketing.

Consumer market segmentation (B2C) offers businesses a number of advantages. First, segmentation helps companies focus their efforts on those customer groups that are most relevant to the organization. Through the segmentation process, the company will be able to correctly select the customer groups that are most attractive to it, and thus manage to take an important step toward satisfying the target customers (Kotler et. al., 2019, p. 293 - 306).

Another advantage that consumer market segmentation offers is that companies that use the segmentation process will be able to satisfy their target customers better than their competitors. This can mean that the company will be able to use its resources and skills more efficiently to achieve its objectives more easily. Last but not least, multiple segmentation through the range of products

varied by segment allows companies to achieve higher sales volumes by attracting more different customer segments (Kotler et. al., 2019, p. 293 - 306).

Of course, the segmentation strategy also has some disadvantages or some limitations. This segmentation process often raises the costs of firms in terms of production, promotion and distribution. Therefore, the choice between undifferentiated, differentiated and focused marketing must always take into account these cost-related aspects versus the potential revenue generated after segmentation (Kotler et. al., 2019, p. 293 - 306).

2.1. GENERAL CRITERIA USED FOR SEGMENTATION OF CONSUMER MARKETS (B2C)

Depending on the sector in which the company operates, there are many ways to achieve this market segmentation process. Each firm must try to apply multiple segmentation variables, both unique and in combination, to find the best way to structure the market in which the company operates (Philip Kotler, 2018, p. 214).

Of course, there are standard segmentation variables of any market, but these variables can always be developed, so that a mix of standard or sub-variable variables is reached, depending on the profile and the field of activity of each enterprise. The main segmentation variables used for segmentation of consumer markets are (Kotler et al., 2020, p. 200):

- Geographic
- Demographic
- Psychographic
- Behavior

Each variable must be analyzed by any undertaking to conclude whether it is necessary to take into account. When the company wants to build an effective marketing strategy, it must decide on the variables it will use depending on its field of activity, resources and objectives (Kotler et al., 2020, p. 200).

The purpose of systematic analysis is to aggregate information from the literature in response to the tremendous speed with which marketing practice is changing, encouraging the relevance of academic research and its validity for business practitioners. I therefore believe that the practical elements are essential for the development and prioritization of directions for an updated research agenda in the field of consumer market segmentation (B2C).

3. METHODS

A systematic review of the literature is defined as "a method and process of research for the identification and critical evaluation of relevant research, as well as for the collection and analysis of data from that research."(Snyder, 2019). Systematic reviews can be classified as (1) domain-based, (2) theory-based, or (3) method-based (Palmatier, Houston, & Hulland, 2018). This study is an area-based review of the subject of consumer market segmentation (B2C). Such reviews examine, synthesize and expand a body of literature in the same background field (Palmatier et al., 2018). Periodic reviews of literature in a field are useful for strengthening academic efforts and allowing a broader view of knowledge. The importance of segmentation for marketing strategy and the large number of unanswered or incompletely answered questions of marketing strategy, as well as opportunities to influence practice in a positive way, are often based on systematic reviews of the literature (Morgan et al., 2019). Efficient and effective segmentation of consumer markets is an important first step toward designing a marketing strategy. This is supported by the fact that always the characteristics and needs of each segment will define the direction and goal of the marketing plan (Mora Cortez et al., 2021). A thorough systematic review of consumer market segmentation (B2C) is therefore more relevant than ever.

To carry out the systematic review of literature we have adopted a rigorous approach that involved several stages: (1) design/design, (2) selection/filtering of literature, (3) analysis of

selected literature, (4) structuring and writing systematic review (Snyder, 2019). At the design stage were (1) selected databases, (2) selection of logs, (3) selection of items, (4) selection of protocol, encoding and synthesis.

3.1. JOURNAL SELECTION

The database we selected for the query was "Web of Science" (https://www-webofscience-com). The paper targeted magazines that are the main source of knowledge on B2C market segmentation literature. As a result, practitioners' manuscripts, textbooks, business books, and conference work were excluded from the search.

The review of the literature concerned several specialized journals that we have evaluated and which were the main source of this paper. In order to select an appropriate and representative sampling framework, we examined the most influential marketing, strategic marketing magazines and not ultimately those targeting consumer markets (B2C) (Morgan et al., 2019): Journal of the Academy of Marketing Science (JAMS), Journal of Marketing (JM), Journal of Marketing Research (JMR), Marketing Science (MS), Journal of Retailing (JR), International Journal of Research in Marketing (IJRM), European Journal of Marketing (EJM), Journal of Retailing and Consumer Services (JRCS), Journal of International Marketing (JIM), International Journal of Consumer Studies (IJCS), Journal of Social Marketing (JSM), Journal of Consumer Behaviour (JCB), International Marketing Review (IMR), Industrial Marketing Management (IMM), Marketing and Management Inovations (MMI), Journal of Marketing Analytics (JMA), International Review of Retail Distribution and Consumer Research (IRRDCR), Journal of International Consumer Marketing (JICM), Journal of Marketing Management (JMM), Journal of Consumer Marketing (JCM) and Journal of Strategic Marketing (JSM). So, we included 22 specialty magazines in the search. We first conducted a keyword-based search directly on the official website "Web of Science" (https://www-webofscience-com), for the period from 2012 to 2022, interrogating articles containing the following search terms: "segmentation market", "segmentation targeting and positioning", "segmentation retail market", "segmentation B2C market", in the title, abstract or keywords (Mora Cortez et al., 2021). This procedure provided a total of 80 items that were kept in a final note file for further analysis.

3.2. ARTICLE SELECTION

The authors independently examined all 80 articles to determine whether they should be included in this paper. According to (Morgan et al., 2019) the articles were scanned in terms of title, abstract, conceptual framework and method.

The exclusion/ inclusion criteria were:
(1) Consumer market applicability (B2C);
(2) focus on segmentation or targeting as relevant element of the Article;
(3) the analysis targeted a company or strategic business unit;
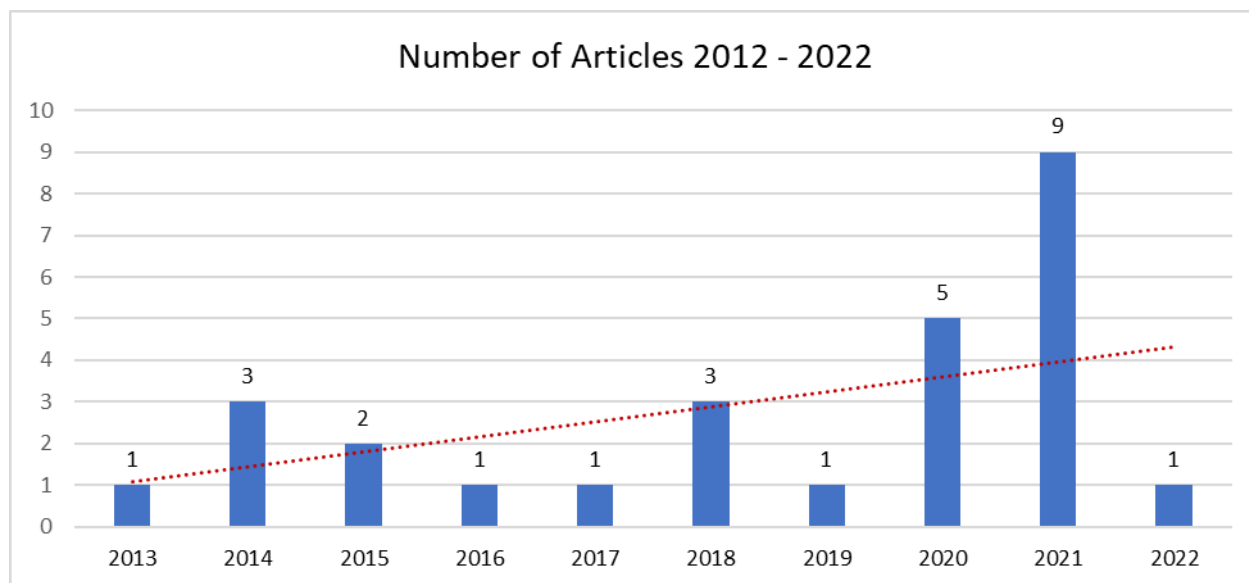(4) the paper was published between 2012 and 2022.

The examiners evaluated all these articles on the basis of the four selection criteria (similar to Mora Cortez et al., 2021). Points were allocated to each item for each of the four filter points: 0 - not representative of the research, 1 - medium, 2 - very good for this research. Any Article that obtained a score of ≥ 5 (out of 8 possible maximum points) from at least one of the authors, it was included in the list for full review. Finally, a total of 27 items were obtained using the filtering method described above, which obtained a score of at least 5. These 27 articles remained in analysis and set the final sample for further analysis. The final sample was stored in an excel file that contains all the landmarks of the 27 items under review.

Of the 27 articles for this paper we analyzed 10 of them, the rest remaining in the works, to be analyzed in the next period. Also, after the full analysis of all 27 articles we will be able to have the final systematic analysis of the literature.

4. PAPERS AND PUBLICATIONS BETWEEN 2012 – 2022

In the period analyzed, a number of 80 articles were identified that referred to segmentation. Of these articles as we have shown above, 27 of them refer to consumer market segmentation and are relevant to this paper.

In the table below we graphically represented the number of articles published each year that relate to consumer market segmentation and fall within the period analyzed in this paper. Of course, the articles published until June 2022 were analyzed, so by the end of this year there are chances that other publications will appear on this topic. Only the Web of Science database has been analyzed and the table below refers only to publications appearing in this database.

Figure no. 1. The number of articles published between 2012 and 2022 that relate to the segmentation of retail markets (Web of Science)

As can be seen from the table above there is an increasing trend in the number of articles published in the last years, except for 2022 (the current year), but it has not been fully analyzed because the analysis was carried out in June 2022. Most published articles referring to consumer market segmentation were published in 2021, a total of 9 articles, followed by 2020 when a total of 5 articles were published. In 2014 and 2018 respectively, 3 articles were published that refer to this topic, and in the rest of the years we are talking about one published Article or a maximum of two per year.

The growing trend of publications in recent years shows that there is an increasing interest in the strategic part of marketing lately and especially a growing interest in the segment targeting positioning (STP) of consumer markets (B2C).

4.1. ANALYZE FOR FOCUS ARTICLES

The paper has analyzed all 27 articles for which I will present some findings below. In the majority of articles, the authors mainly tried to identify new methods of segmentation of the retail market (B2C). There has also been a growing trend in recent years to apply segmentation methods with the help of technology. More and more authors say in published articles that technology can help streamline and effectiveness of consumer market segmentation methods. In this part the paper will analyze all the articles we focused on, making a brief analysis of each of the remaining ones in focus. For the following analizye from below we will note each article with a cronological number and with letter a (a - article, for example - 1a, 2a, 3a etc.).

(1a) The first article for our analize is an article from 2019 that brings to the fore a novel method of segmenting consumers with the help of technology RTLS (Real Time Locating System) (Ferracuti et al., 2019). The Article presents a segmentation method by tracking the real-time path of consumers in a supermarket chain and classifying them into several groups. Later, several segments were discovered that have similar behavior, but also that travel similar routes through stores and staying more in certain areas of the retailer. With the help of this technology (RTLS), the retailer was able to identify certain areas of the store where to place certain promotional items, but also to identify consumers who are only looking for certain types of products in its stores and then target them with different campaigns.

The article "A business application of RTLS technology in Intelligent Retail Environment: Defining the shopper's preferred path and its segmentation" (Ferracuti et al., 2019), explains how RTLS technology can be used in retail environments to improve the customer experience through segmentation. By tracking the movements of customers throughout the store, RTLS technology can be used to determine their preferred path and segment them into different groups. This information can then be used to optimize store layouts, improve product placement and create targeted marketing campaigns. Additionally, the article highlights that RTLS technology can also be used to improve store operations, such as managing inventory and reducing shrinkage. Overall, the article focuses on how RTLS technology can be used to segment customers and improve the shopping experience in retail environments.

(2a) Another Article published in 2020 "A strategic framework for artificial intelligence in marketing" (Huang & Rust, 2021), presents a comprehensive three-step approach to strategic marketing planning, encompassing the manifold advantages of artificial intelligence (AI). The study elucidates the manifold applications of AI in marketing, specifically in the domains of market research, strategy formulation (segmentation, targeting, and positioning, commonly referred to as STP), and subsequent implementation. During the market research phase, AI can be effectively employed for data collection, market analysis, and customer comprehension. Furthermore, within the marketing strategy stage (STP), AI facilitates segmentation (via segment recognition), targeting (through segment/segment recommendation), and positioning (via segment/segment resonance) (Huang & Rust, 2021). The Article outlines the current situation by which most companies analyze consumer behavior based on certain feedback from customers who have already consumed the product/service. The article proposes a new approach using artificial intelligence (AI), which allows the installation of various equipment to collect data from consumers in real time while they use products (e.g. smart clock that can transmit data in real time to the manufacturer, equipment fitted in vehicles that observe the driving style of people, etc.). These (AI) address tracking and capturing data in real time when it occurs. Hence, the data acquired is contextually relevant, pertaining to the customers and their experiences throughout the consumer journey. Big data and machine learning analytics have emerged as the pioneering methodology for evaluating marketing opportunities. (Huang & Rust, 2021).

Last but not least, there is a trend to use social media to segment consumer markets. (3a) An example of this is an Article published in 2012 "Segmenting consumer reactions to social network marketing" (Campbell, et. al. 2014). The aim of the paper is to understand how consumers can be segmented in terms of their reactions to social media marketing. More specifically, segmenting through social networks based on consumer responses and identifying their behavior following exposure to a social media marketing campaign. The main purpose of the research was to explore whether there are consumer segments and whether they differ according to their level of engagement, referral behavior "Word of Mouth" (WOM) and buying intentions following exposure to social media marketing (Campbell et al., 2014).

Other articles propose new segmentation methods by adding other variables to the standard methods. Two examples of this are (4a) "The role of shopping mission in retail customer segmentation" (Sokol & Holý, 2019) which proposes besides the classical method of segmentation, frequency and monetary value (RFM) and segmentation based on the structure of purchased products (PPS), another variable that is added to the two, namely "segmentation based on the

purchase mission" (SM) (Sokol & Holý, 2019). (5a) Another similar paper " Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach" proposes adding a new variable " consumer decision-making styles" (CDMS). The paper focuses on how consumers make decisions on online and offline channels based on their perceptions of retailers' marketing practices. The Article aims to understand " consumer decision-making styles" (CDMS) as market segments on the perception of marketing practices on retail channels (Rezaei, 2015).

In the articles analyzed so, there are also works that analyze only the classical segmentation variables. (6a) One of them analyzes consumers based on their gender and purchasing behavior "A Cross-National Study of Evolutionary Origins of Gender Shopping Styles: She Gatherer, He Hunter?" (Dennis et al., 2018). By investigating the shopping preferences of individuals based on gender across various countries, the authors aim to examine whether the disparities in shopping styles between genders (male and female) surpass the discrepancies in shopping styles observed among consumers in specific countries. The study seeks to evaluate an existing hypothesis of convergence, which posits that men and women should exhibit more similarity in their shopping styles, as traditional gender-based divisions are gradually diminishing. Specifically, the article argues that given the recent advancements in gender equality across most countries, shopping styles should be more akin. The findings of the study, conducted across 11 countries, indicate that men and women possess innate predispositions towards distinct shopping styles. Moreover, these differences in shopping styles are more pronounced in countries with higher levels of gender equality. Consequently, the results suggest that retail segmentation based on gender holds greater strategic relevance compared to segmentation based on country (Dennis et al., 2018).

(7a) The other study highlights consumer age-related segmentation. This study looks at whether older consumers are more loyal to old, traditional brands (Phua, et. al. 2020). The article "Examining older consumers' loyalty towards older brands in grocery retailing" examines and compares the purchasing behaviors of older and younger consumers towards both older and newer brands within the food retail industry. The study's findings revealed that older consumer segments generally do not exhibit a preference for older brands at the expense of newer ones. Consequently, brands of various ages engage in competition for consumers across different age groups. These results indicate that for newer brands, older consumers should not be overlooked, but rather identified as a target segment for brand expansion. Conversely, although older, more traditional brands possess the implicit advantage of having long-standing exposure to older consumers, this advantage dissipates if these brands fail to maintain a competitive presence in the market. Older consumers demonstrate a willingness to pay attention and explore newer brand offerings, making them receptive to loyalty towards newer brands if they better fulfill their needs, desires, or offer additional benefits (Phua et al., 2020).

(8a) "Customer segmentation by web content mining" (Zhou, et. al., 2021). This article presents an enhanced version of the RFM model (Recency, Frequency, and Monetary) by introducing a novel dimension called Inter-Purchase Time (T), resulting in an extended RFMT model for customer segmentation based on analyzing online consumer purchase sequences over an extended duration. The proposed RFMT model enables the monitoring and identification of shifts in customer purchasing behavior throughout the entire shopping cycle. To gather relevant customer data, a web content recovery system was developed, retrieving publicly available information from a merchant's website, including demographic details (gender, age, location, etc.) and product-specific information (name, price, date, etc.) for each purchase made between 2008 and 2019. By calculating RFMT values for individual customers from the collected data, hierarchical grouping analysis was conducted, resulting in the identification of seven distinct homogeneous customer groups with unique profiles. The proposed RFMT model can track and discern changes in customer purchasing behavior and perform average customer segmentation. After applying demographic and product factors to the formation of each cluster, information about business strategies can be generated to improve customer relationships and product-specific recommendations (Zhou et al., 2021).

(9a) The article "Emerging cyborg products: An ethical market approach for market segmentation" (Arias, et. al. 2020) discusses the ethical implications of cyborg products and their potential use in market segmentation. The article suggests that as cyborg products, such as exoskeletons, become more prevalent, they have the potential to change the way we segment markets. The article suggests that cyborg products can create new segments of customers, such as disabled or elderly individuals, who have specific needs that traditional products cannot meet. The article also suggests that cyborg products can also create new segments of customers based on their preferences and values. Additionally, the article highlights the need for an ethical approach to market segmentation in order to ensure that these new segments are not exploited. Overall, the article discusses how cyborg products can change the way markets are segmented and the need for ethical considerations in this process.

(10a) "Capturing the Evolution of Customer–Firm Relationships: How Customers Become More (or Less) Valuable Over Time" (Mark, et. al, 2013). The research data utilized in this study originates from a prominent North American retailer engaged in the sale of clothing and household goods. The authors collected comprehensive data from a cohort of 9,487 clients spanning a nine-year timeframe, commencing in January 2001. The study focused on analyzing longitudinal trends in customer purchasing patterns and marketing initiatives, encompassing acquisitions, catalog promotions, and retail promotions. Specifically, the research investigated a retailer who provided extensive customer purchase data covering a period of nine years. The findings indicate a significant positive impact of catalog distribution on the likelihood of customer purchases across all four territories in which the retailer operated stores and consistently distributed catalogs throughout the entire nine-year period. The empirical analysis conducted in this article reveals compelling evidence of dynamic customer behavior specific to this retailer. From a marketing perspective, the analyzed customers exhibit a notable positive response to receiving catalogs, thereby increasing the probability of making purchases. Furthermore, these customers show a favorable inclination towards retail promotions, resulting in a higher likelihood of making additional purchases when exposed to such promotions. Based on the analysis, the retailer's customer base was classified into four distinct segments: "(1) Deal-prone, (2) Dependable, (3) Active, and (4) Event-driven" (Mark, et. al, 2013). Of the four segments identified, the Article analyzes the behavior of each segment over the 9 years, depending on how they react to the promotions made by the retailer. The paper shows that the event-based segment, the most valuable segment for the retailer analyzed, would not have been identified by previous approaches in the literature. This segment was observed after the experiment that it has the best reactions to promotions through catalogs. The segment will almost certainly make a purchase upon receipt of the catalog near an event (for example before Christmas). " These customers will make a purchase with almost certainty when they receive a catalog; however, catalogs do not influence how much they will buy. This marketing activity tends to serve as a reminder to these customers that an event is approaching which immediately triggers a purchase activity" (Mark et al., 2013). The 9-year experiment Article provides added value to literature and business in practice, providing a new insight into segment reactions to different promotions.

(11a) "Shopping orientation as a stable consumer disposition and its influence on consumers' evaluations of retailer communication" (Büttner, et. al., 2014). The primary objective of this study is to investigate whether individual variations in consumer shopping behaviors are indicative of a consistent consumer disposition, such as a chronic shopping orientation (CSO). Additionally, the research examines the impact of this orientation on consumers' perceptions of communication with retailers. The authors posit that consumers can be categorized into two distinct groups: the first comprising individuals who engage in experiential shopping, while the second consists of consumers who prioritize task-oriented shopping. This study represents the first empirical evidence confirming the existence of CSO as a stable consumer mindset. Overall, the findings underscore the significance of CSO as a valuable construct for customer segmentation and personalized communication strategies within the retail sector.

(12a) "Customized Targeting Strategies for Category Coupons to Maximize CLV and Minimize Cost" (Bernhard. et. al., 2021). The present article addresses an important issue pertaining to the integration of Customer Life Value (CLV) in the selection of coupon categories. This problem involves two key considerations: whether the coupon should be specific to a particular category and, if so, whether short-term or long-term goals should govern the category selection process. To shed light on these questions, the paper employs an analytical model to analyze the impact of different targeting strategies for category coupons on both short-term marketing costs and long-term CLV. The study develops various targeting strategies utilizing a data-driven customer segmentation framework based on date, abandonment size, frequency, and loyalty.

The personalized targeting strategies identify customers who should be targeted with one of three types of promotions: non-category-specific coupons, coupons for frequently purchased categories, and coupons for less frequently purchased categories. The underlying concept behind these sophisticated targeting strategies is to combine high-value, non-category-specific coupons that create long-term value with the cost-saving and directing advantages of category selection. On one hand, the approach aligns with retail practices by targeting specific customers with promotions for categories they frequently purchase, aiming to reduce marketing costs while achieving high redemption rates. On the other hand, it is recommended to promote categories to certain customers when their purchases from those categories are less frequent compared to other segments. This incentivizes targeted customers to make regular purchases from the merchant within those categories. The ultimate outcome is an increase in basket sizes and, consequently, CLV (Customer Life Value).

The authors draw two significant implications for marketing managers in the retail sector based on their findings. First, they suggest abandoning the traditional mindset of maximizing short-term performance indicators (e.g., conversion rate) or letting short-term marketing budgets drive category design decisions. Such approaches overlook the potential of personalized promotions and result in inefficient allocation of resources. Second, the authors highlight the importance of leveraging the full range of options offered by category selection to optimize the trade-off between short-term considerations and CLV (Customer Life Value). Marketing managers are encouraged to carefully consider these implications in order to enhance their marketing strategies and achieve optimal outcomes in the retail sector.

(13a) "When Plentiful Platforms Pay Off: Assessment Orientation Moderates the Effect of Assortment Size on Choice Engagement and Product Valuation" (Mathmann, et. al., 2017). The study analyzes the perception of consumers according to the size of the assortment (the wide range of products in a category), made available by online stores and according to the inclination of the customers to offer reviews of the products in the store. Digital retail platforms have the objective of offering customers an expanding array of choices in the form of a rich assortment. However, it remains uncertain how, when, and for whom comparing a diverse range of options on a multi-choice platform contributes to customer engagement or enhances the platform's value. Certain consumer segments exhibit a distinct preference for products offered by stores with an extensive assortment, as they possess a stronger inclination toward product evaluation. The study demonstrates that establishing a regulatory fit between a customer's motivation to compare and the size of the assortment significantly influences the customer's propensity to make purchases. This finding holds implications for the process of segmentation and targeting. When formulating a segmentation strategy, market researchers can identify segments characterized by a heightened focus on product valuation, as these prototypical segments are best served by retailers offering a wide range of products. The paper furnishes empirical evidence supporting the theory that customers with a strong emphasis on valuation place greater value on products when choosing from an extensive selection. The findings of the study thus provide specific and practical suggestions for digital retail platform managers and extend research into the effects of assortment sizes and product comparisons.

(14a) Online Omnivores' or 'Willing but struggling'? "Identifying online grocery shopping behavior segments using attitude theory" (Brand, et. al., 2020). The primary objective of this

research paper is to identify and characterize segments of grocery consumers using a psychographic segmentation approach, firmly grounded in the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). A comprehensive methodology utilizing a main component and two-stage segment analysis was employed to identify five distinct and easily interpretable segments based on their attitudes, norms, perceptions, and beliefs, as well as their socio-economic characteristics and grocery shopping preferences. These segments reveal notable variations in food shopping preferences, ranging from avid online shoppers seeking an enhanced experience and greater options ("urbanites intensive," "online omnivores") to individuals exhibiting resistance to online shopping services while emphasizing social responsibility ("resistance and responsibility"). The distinguishing characteristics of these segments highlight that consumer acceptance or rejection of online shopping is influenced by various factors, including convenience, perceived benefits, costs, and risks, technological impact, time constraints, and the alignment with daily routines (perceived behavioral control). Furthermore, the social and environmental dimensions of personal norms and beliefs also play a significant role in shaping consumers' attitudes towards online grocery shopping. The findings of this study provide valuable insights into the diverse motivations and preferences of grocery consumers, shedding light on the factors that attract or deter buyers from embracing online shopping platforms. The paper analyzes several segments according to their preference and their attitudes in the context of the growing development of online commerce for home delivery grocery. The main analysis of the authors of the article generated eight general, psychologically significant and independent constructions in terms of shopping grocery behavior: "Positive Attitudes, Negative Attitudes, Social Norm, Perceived Behavioral Control (Time Pressure), Innovativeness (affect and knowledge), Grocery Shopping Attitude and Outcome Awareness, Outcome Expectancy, and Outcome Awareness (efficiency)" (Brand, et. al., 2020). The analysis of all segments according to the eight factors led to five well-defined segments of the sample: "Intensive Urbanites, Online Omnivores, Uncaring Multitude, Willing but Struggling, Resisting and Responsible" (Brand, et. al., 2020).

Based on the premise that there is no prototypical grocery shopper, this study employed a psychographic segmentation approach grounded in the "Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB)" (Brand, et. al., 2020), to identify and describe distinct groups of grocery shoppers. Each of the five segments represents a unique combination of self-reported likelihood to engage in online shopping and exhibits variations in average perceptions, beliefs, concerns, and the importance attributed to symbolic, affective, and instrumental factors associated with grocery shopping. The findings underscore the influence of non-cost attitudinal, situational, and demographic factors on the choice of shopping channels. Moreover, they emphasize the significance of integrating theory with domain-specific issues and considerations, thereby supporting the notion that consumer segmentation should be theoretically informed and tailored to the particular characteristics and circumstances of the subject under investigation.

(15a) "Temporal and financial risk assessments: How time and money constrain shopper behavior and influence purchase solutions" (Jones, et. al., 2015). The objective of this article is to gain a deeper understanding of the factors that make shopper behavior distinct and how these factors manifest in retail purchasing decisions. The data reveals that all buyers perceive constraints related to both financial limitations and time scarcity. These findings hold true across various income levels, age groups, and employment statuses. Consequently, price and convenience no longer serve as growth drivers but rather serve as thresholds that shape buyer expectations for retailers, service providers, and brands. The research data indicates that constraints have established inflection points that may vary depending on the situational context. As the value of the purchase increases, buyers may relax their temporal and/or financial constraints, leading to a curvilinear relationship where buyers are willing to invest more time and money. The study suggests that while the perceived levels of constraints may vary depending on the situation, time and financial constraints are consistently present across consumers, regardless of income level or employment status. The universality of these constraints renders two historically prominent consumer segmentation tools ineffective. Recognizing that every purchase requires an allocation of time and

money sets a minimum expectation for shoppers, necessitating that retail service providers offer fair prices and a convenient shopping experience. Providers, be it retailers or brands, that fail to deliver sufficient value and convenience will be excluded from buyers' consideration. Specifically, regarding the buyer's assessment of financial constraints, it acknowledges not only current expenses but also the future impact of such expenditures on available funds. This dual recognition signifies a longer-term perspective beyond immediate transactions, in which buyers contextualize their purchasing decisions. It implies that buyers are less transactional and more focused on building relationships. Therefore, assessments of price fairness are shaped by multiple interactions that form a relationship which holds greater importance to buyers than individual transactional savings. This research presents a fresh perspective on the unique nature of buyer segmentation. Further exploration of buyer behavior can yield valuable insights on how to effectively cater to their needs. By gaining a better understanding of buyer requirements, retailers and brands can offer improved solutions. Recognizing that all buyers face time and financial constraints presents an opportunity for retailers and merchants to shift their messaging away from mere convenience and price and towards relationship marketing. Through fostering relationships, retailers and brands can earn trust and loyalty from buyers by consistently addressing their perceived constraints.

(16a) "Product customization: A profile of consumer demand" (Pallant, et. al., 2020). The article addresses the segmentation process of the market and goes with the analysis to the level of individual segmentation, that is, of product customization at the extreme level (at the individual level). An increasing number of brands are adopting a consumer-centric approach by empowering consumers to participate in the design process and customize products, experiences, and services. However, it is essential to recognize that consumer demand for customization is not uniform but rather heterogeneous. Understanding these differences is crucial for brand managers to effectively develop and deliver customization opportunities to consumers. Drawing upon configuration theory, this study offers insights into consumer market segments that can help firms achieve strategic fit for more effective customization. Through several studies utilizing latent cluster analysis, the authors identify four distinct segments: "Non Customizers, New Customizers, Active Customizers, and Expired Customizers" (Pallant, et. al., 2020), while examining the implications for new product design. The diverse patterns of personalization preferences and cross-segment consumer models present opportunities for retail and service providers to target personalization offerings more effectively. Traditionally, product design has been a source of competitiveness and advantage for brands. However, brands have increasingly allowed consumers to customize their products, a practice that has become prevalent in modern retail. Nevertheless, the inability to achieve mass market adoption has led to the demise of even well-established brands. The authors firmly believe in the future of product customization but emphasize the importance of companies implementing it efficiently to control costs. Through the lens of configuration theory, the study reveals distinct customization segments — "New, Active, and Lapsed Customizers" (Pallant, et. al., 2020) — that warrant specific strategic prioritization. Managers are encouraged to familiarize themselves with these new consumer segments identified in the study and understand their motivations and desires regarding product customization. For instance, "New Customizers" are relatively new to the customization process and may not have engaged in personalization previously. There is potential for this segment to transition into "Active Customizers," with encouragement to continue customizing their products and providing opportunities to maximize the utility of new product design features. It is crucial for managers and retailers to consider customers' perceptions of functionality when designing and delivering customization tools for their products. The research demonstrates that the willingness to customize products before purchase varies across different contexts. Among the three product categories investigated, sneakers are the most likely to be customized, while watches are less commonly customized. Furthermore, the proportion of active customizers is relatively low, ranging from one to three percent in the general population and up to eight percent among customers of a brand offering personalization. Retailers are advised to determine the proportion of customization demand specific to their product category or brand. This proportion will be directly linked to market opportunity and therefore profitability. The study

clearly shows a direction in this respect of the desire of consumers to personalize their products. It also shows that those who now personalize their products are open and even looking for products that they can personalize more. At the same time, those who do not yet resort to personalization can easily become active customizers if companies would urge them and provide them with tools through which they can customize their products.

(17a) "Segmentation of both reviewers and businesses on social media" (Moon, et. al., 2021). The authors of the article conduct a two-way segmentation in their paper, once that of consumers who offer online reviews (on social media platforms) for the restaurants and the second that of companies (restaurants) that are reviewed online by these consumers. This data structure allows for both reviewer segmentation and business segmentation. A very interesting aspect of the research carried out by this article is that the authors perform these two phered segmentation processes, thus making the segmentation process much more logical and efficient. They analyze in the first phase all online reviews of restaurants, offered by consumers, and in parallel they conduct an analysis of restaurants. Paper research led to a much higher accuracy of segmneting, as consumer reviews of similar-size restaurants, similar kitchens restaurants and other aspects were compared. That is, the authors did not have a discrepancy between restaurants evaluated by consumers, but they analyzed consumer reviews for similar restaurants. This two-part segmentation approach is effective, the authors argue, as the business can develop personalized segmentation strategies on social media. To do this, according to the research carried out, the business must take three steps: "1) identifying its own business segment membership, (2) identifying suitable target reviewer segments based on its own business segment, and (3) establishing the details of the segmentation strategies at the product feature level" (Moon et al., 2021). The two-part paper segmentation procedure allows companies to perform a more personalized segmentation, given that they can consider the perspective of companies that share similar business practices in meeting customer preferences, instead of the traditional approach to covering the general market from the general business perspective.

(18a) "Heterogeneity in consumers' mobile shopping acceptance: A finite mixture partial least squares modelling approach for exploring and characterising different shopper segments" (Groß, 2018). This research examined the phenomenon of mobile shopping, an area that has experienced significant growth in practice but remains relatively unexplored in terms of segmentation research. Therefore, this study had two objectives: "1) to propose an extended version of the technology acceptance model (TAM) to reflect a multidimensional framework of m-shopping acceptance, in which data heterogeneity regarding consumers' acceptance is expected; and 2) to apply an advanced segmentation approach for revealing different mobile shopper (m-shopper) types to highlight precise marketing activities and measures" (Groß, 2018). In this study, the author used the term "m-shopping" referring to a ubiquitous "on-the-go" shopping channel used on smartphones (Groß, 2018). The data were therefore selected accordingly. The study had a sample of n = 734 German buyers who participated in an online survey. This study, the author argues, contributes to contemporary research on m-shopping in two ways. First, in terms of the level of aggregated data (n = 734 survey respondents), and then the analysis conducted that shows strong support for the causal relationship between attitude, intention and behavior, and thus confirms the multidimensional framework hypothesized in this study. In more detail, the study shows that consumers' attitude toward m-shopping is more affected by an easy-to-use interface than by utility and pleasure. However, the author shows that all three factors are still essential to form a positive attitude, and an easy-to-use interface affects utilitarian aspects more than hedonistic. Apart from attitude, consumers' intention to use M-shopping is much more strongly affected by social influence than by trust in merchants who offer smartphone-friendly websites. The result of this study says the author, is not surprising, because m-shopping services allow consumers to share their recently purchased items, ask for feedback and/or immediately express their dissatisfaction in social networks with a few quick finger movements. Thus, in addition to consumer intent, the usage behavior of m-shopping is determined by consumer satisfaction. This is also supported by previous research studies, which have shown that consumer satisfaction positively affects their intention to continue

engaging in m-shopping. The empirical findings of the study also reveal three different segments of m-shopper, supporting the heterogeneity hypothesis of data, showing once again that the causal relationship between attitude, intention and behavior is significant in all three identified segments. The author identified the following 3 segments (Groß, 2018):

- "Segment 1 which includes n = 454 million buyers, representing the majority of the sample (61.9%), and these buyers can be described as "motivated buyers". This comes from the fact that they perceive m-shopping not only as useful and pleasant to a greater extent than the other two segments, but also as socially important and as an easy-to-use service."
- "Segment 2, (23.0% of the sample), consists of "attentive m-utility buyers". A main feature of consumers in this segment is that they perceive m-shopping as much more useful than pleasant."
- "Segment 3 (15.1% of the sample), called "satisfied, comfort conscious m-shoppers". These M-shopping shoppers do not perceive M-shopping as useful and enjoyable; instead, they prefer it because of its ease of use. Since m-shopping is convenient, it is expected that these buyers will eventually have a positive attitude toward it. Confirming this expectation, they consider M-shopping in general very satisfactory. Similar to motivated buyers, however, M-Vendor trust is not at all important for this segment." (Groß, 2018)

(19a) "A sequence analysis approach to segmenting credit card customers" (Ho, et. al., 2021). This article analyzes the loyalty behavior of a bank's clients from the perspective of their use of credit cards issued by the bank. More specifically, it analyzes over time the transactions made by the users of credit cards, with the ultimate goal of segmenting the clients based on the transactions made by them. The paper analysis results in the identification of six distinct customer segments: "Loyalist, Switching Loyalist, Switching Defector, Defector, Dormant Loyalist, and Dormant Defector" (Ho et al., 2021). The paper analyzed transactions over a period of ~3 years (from July 2009 to January 2011) of a sample of 87,677 clients of a Taiwanese bank, all of whom were users of credit cards issued by the bank. This study examines the longitudinal interactions between clients and a bank, as well as its competitors, in order to uncover intricate relationships between dynamic customer loyalty and financial outcomes. The research contributes to the existing literature by generating strategies for customer acquisition and retention, considering the wallet share of customers over time. The findings offer practical guidance for banks regarding resource allocation and the development of customer strategies tailored to different segments. First and foremost, the study emphasizes the importance of considering customer interactions with both the focal company and its competitors over time, and assessing whether customer loyalty is temporary or enduring. The authors highlight that "consumers seek variety and tend to switch between brands, making it challenging to predict the potential value of customers" (Ho, et. al., 2021). Taking into account customers' utilization of services from multiple providers, this research reveals that even if customers are not entirely loyal, their profit potential may not be low. Specifically, the findings indicate that "Loyalists" demonstrate a similar level of profitability to the two switching segments ("Switching Loyalist and Switching Defector") (Ho, et. al., 2021), suggesting that allocating resources to cultivate customer relationships can enhance the profitability of the focal firm. Moreover, since the "Switching Defectors" exhibit a high degree of credit card usage and represent the largest share of the sample (38.17%), the aggregate profits from this segment surpass those of the "Loyalists" (Ho, et. al., 2021). This implies that the analyzed company should allocate comparable resources to develop and retain all three segments, rather than solely focusing on loyalists. Effective resource allocation to the appropriate customer segments is crucial for maximizing customer profitability. Secondly, the article suggests that the bank under review could offer enticing incentives to the "Defectors" segment to gradually develop card usage habits across multiple banks simultaneously (Ho, et. al., 2021). Potential strategies include forming exclusive alliances with popular retail stores to issue co-branded credit cards, providing unique advantages and personalized rewards in loyalty programs, or streamlining the website to facilitate hassle-free

online transactions. Incentives should be designed to alter customers' typical card usage behavior. Marketers can customize these incentives for individual customers by collecting and analyzing psychographic and lifestyle data. However, the authors caution against relying solely on monetary incentives, as they tend to have a short-term impact rather than a lasting influence on customers' service usage habits. Thirdly, the study highlights the importance for firms to consider the likelihood of future product or service use when formulating customer acquisition strategies. It suggests that the bank should evaluate whether its customer acquisition efforts are targeting the right customers. The authors recommend monitoring the proportion of customers entering a dormant state each month, as this group could indicate an excessive use of promotions and aggressive sales tactics to encourage credit card sign-ups. Such excessive marketing efforts may lead to resource wastage without significant returns from acquired customers. Therefore, firms should strive to profile these segments based on demographics or other attributes and avoid targeting these customers.

(20a) "On the Edge of Buying: A Targeting Approach for Indecisive Buyers Based on Willingness-to-Pay Ranges" (Dost, et. al., 2014). The article introduces a novel targeting approach that utilizes consumers' incremental responses to categorize them based on their "willingness-to-pay (WTP) ranges" (Dost, et. al., 2014). According to the authors, WTP ranges can determine whether a consumer is a definite buyer, definite non-buyer, or undecided buyer. These ranges are bounded by two reservation prices: "the minimum reservation price (the price at which the consumer would certainly buy) and the maximum reservation price (the price beyond which the consumer would no longer buy)" (Dost, et. al., 2014). In a broader sense, WTP ranges represent the individual probability of purchase (pr) as a function of price. "At a given price point, a consumer can be categorized as a definite buyer (pr = 1), definite non-buyer (pr = 0), or undecided buyer (0 < pr < 1)" (Dost, et. al., 2014). Targeting undecided consumers is shown to be of utmost importance in previous research. The authors emphasize the need to differentiate between insecure and undecided consumers in targeting efforts. Insecure consumers can be identified based on general segmentation criteria like demographics or psychographics. However, the authors' approach focuses on a more specific criterion—the WTP range—which captures consumers' preferences, uncertainty about their preferences and product performance, and the probabilities of choice as a price function. Furthermore, the research highlights the significance of identifying and targeting consumers who are in a state of indecision. The marketing mix activities should be designed to influence consumers when they are on the brink of making a purchasing decision. The authors' field experiment provides empirical evidence supporting the external validity and practical applicability of their targeting approach. By applying this approach, companies can enhance the efficiency of their consumer targeting efforts. Based on the research findings, companies can customize and allocate their marketing resources for each buyer group. For instance, higher discounts, increased coupon offerings, and more significant marketing incentives can be directed towards undecided buyers compared to "decided" consumers and insecure buyers (Dost, et. al., 2014). The authors point out that companies should allocate higher budgets (bid higher) when targeting undecided consumers, both on ad and search channels. Following this strategy applied by the companies, the authors of the article say that the results of the companies will improve significantly, they registering a higher degree of conversions among this segment of "undecided" consumers.

(21a) "Generation X vs. Generation Y - A decade of online shopping" (Lissitsa & Kol, 2016). The article investigates the patterns of internet adoption and online purchasing behavior among generation X and generation Y over the past decade. Through descriptive research, the authors reveal that while the Y generation had a higher internet access rate, a greater percentage of generation X individuals made online purchases of electrical appliances, furniture, and holidays. Despite generation Y's reputation for hedonism, extravagance, and high connectivity, the article emphasizes the importance for marketers to focus their efforts on generation X, as this group tends to make more purchases due to higher disposable income and more leisure time. With the increasing connectivity of generation X in the virtual world, the authors predict a rise in online purchasing revenues from both generations in the near future.

The research suggests that marketers need to adopt distinct approaches for generation Y compared to generation X. For internet-native millennials, shopping is not solely a transactional activity but rather a source of entertainment and experiential involvement. To become a preferred option for generation Y, brands must engage with their lives, adding value to their daily experiences, such as through mobile platforms. Additionally, when making purchasing decisions, generation Y heavily relies on social media platforms, which they frequently populate. Marketers should, therefore, incentivize millennials to actively participate and generate social media recommendations, recognizing their strong influence and acknowledging the growing significance of social media sites as primary sources of product and service information for this generation. (22a) "Trust me if you can - neurophysiological insights on the influence of consumer impulsiveness on trustworthiness evaluations in online settings" (Hubert, et. al. 2018). The objective of this study was to investigate the impact of consumer personality traits, specifically impulsivity, on trust assessments of online offerings. By measuring consumer brain activity, the researchers aimed to understand the effects of confidence assurance and confidence reduction elements. Participants displaying high impulsivity were referred to as hedonic buyers, while those with low impulsivity were classified as prudent consumers. The study reveals that consumer impulsivity significantly influences the evaluation of online offers. The data collected provides evidence that individuals in the hedonic group assess online offerings differently in terms of confidence compared to the prudent group, and these differences in evaluation stem from variances in neural activation patterns among buyers. The authors demonstrate the importance of considering the neural processes underlying specific characteristics and personality traits of consumers when understanding their perception of online offerings. They propose that classifying consumers as "prudent or hedonic, based on self-reporting, serves as a proxy for impulsivity and aids in determining their perception of online offers" (Hubert, et. al. 2018). Furthermore, the study establishes a direct link between impulsivity as an individual trait and the evaluation of online offerings. The authors suggest that this fundamental personal trait is likely to influence most purchasing decisions in an online context and may be associated with distinct patterns of neural activation. The authors also highlight the relevance of these findings in relation to existing literature on neural activation patterns linked to decision-making. Analysis of the data uncovers similarities and important differences in decision-making processes between hedonic and prudent buyers, primarily in the magnitude of neural activation patterns rather than their overall patterns. This suggests that marketing actions can modulate these magnitudes. The study's findings demonstrate that trust in online offerings plays a crucial role in purchase decisions, allowing marketers to utilize trust ratings as an indicator of offer quality. However, the authors note that while trust ratings generally align with increased preferences or purchasing behavior, their accurate correlation is not always guaranteed. Building on this logic, the research presents an initial step toward a neural market segmentation framework centered around impulsivity as a personal trait, adding an additional layer of consumer heterogeneity to the segmentation process.

(23a) "Examining customer engagement and brand intimacy in social media context" (Wang & Lee, 2020). This study offers valuable insights for fashion firms in developing an effective social media strategy, a crucial aspect in the industry. Firstly, understanding consumers' motivation for seeking fashion advice is identified as a key driving force. Consumers absorb various types of information from informants, including businesses and other users. Based on this finding, companies can initiate campaigns that facilitate the absorption process, enhancing customer engagement. Additionally, the authors recommend characterizing online communication, whether through social networks or self-developed websites, with features that fulfill customers' information exploration needs. The article underscores the relationship between "self-expression and customer engagement" (Wang & Lee, 2020), providing guidance for fashion firms. Leveraging the popular phenomenon of selfies, companies can tap into this large group of individuals who use selfies as a means of self-expression. Selfie campaigns can effectively attract potential customers, establishing connections between customers and brands. By incorporating selfies, companies can humanize their campaigns, eliciting positive emotional responses and encouraging customer engagement.

Customers may respond to brand-related selfies with likes or shares, or create their own selfies featuring the brand. These voluntary engagement activities are considered organic and can elevate customer engagement. The study highlights the importance of marketing campaigns that encourage customer participation in consumer and brand creation activities, fostering a cycle of co-creation where customers become co-creators of value. Considering the impact of context, the study emphasizes the need for managers to be cautious of contextual factors that may influence customer engagement management efforts in the fashion industry. Gender, in particular, plays a role in shaping these strategies. Managers should also consider the influence of national culture when designing global marketing communication campaigns and segmentation strategies. While the internet transcends borders, analyzing big data can help businesses tailor their advertisements and promotions to customers based on their cultural environment. For instance, companies can emphasize the need for "self-expression and employ emotional appeals to engage individualistic customers" (Wang & Lee, 2020).

(24a) "A neural network based price sensitive recommender model to predict customer choices based on price effect" (Chen, et. al., 2021). In this study, the authors aimed to capture significant economic insights in the fields of marketing and economics by leveraging advanced machine learning techniques to predict customer choices in a large-scale supermarket setting. The authors focused on extracting personalized price sensitivities of consumers and examining their impact on consumer behavior. The dataset utilized in the study consisted of customer-product interactions and corresponding prices from a supermarket chain in Germany. To address this, the authors proposed a "two-way matrix factorization model (2way-MF)" (Chen, et. al., 2021) that incorporated price information and effectively captured implicit feedback from customer-product interactions. The models introduced in this paper outperformed standard matrix factorization models commonly used in the industry. To validate their approach, the authors further analyzed data from a supermarket chain in Taiwan. The authors suggest that additional research and analysis could contribute to managers and marketers' understanding of cross-elasticities of prices. The study highlighted the presence of heterogeneity in price sensitivities across different products and customers. "Two models, 2Way-MF and its deeper version called MFDL (Matrix Factorization with deep learning)" (Chen, et. al., 2021), were proposed to account for price effects in predicting customer choices. These models successfully incorporated the varying price heterogeneity observed in conscious customer decision-making. The authors conducted experiments demonstrating the effectiveness of both "2Way-MF and MFDL" (Chen, et. al., 2021), showcasing their superior performance compared to the standard MF model widely adopted in the industry. Particularly, MFDL showed promise in providing accurate customer choice predictions considering price effects and effectively estimating personalized price sensitivities at the product level. By deducing customer preferences based on product prices and past purchase behavior, the framework proposed by the authors has the potential for application in various industries such as clothing and electronics. The influence of price effects on customer choice prediction was found to be significant and intuitive. Additionally, the authors conducted extensive research to identify substitutes and complementary products, enabling the examination of counterfactual scenarios regarding price elasticity. This research contributes to understanding how changes in product prices impact the demand for related products.

(25a) "Joint modeling of effects of customer tier program on customer purchase duration and purchase amount" (Nishio & Hoshino, 2022). The article examines more loyalty programs implemented by large companies versus the success of these programs. The authors of the article simultaneously modeled the frequency and quantity purchased, taking into account the effects of the loyalty program and the characteristics of the clients. This study had several research implications. First, the results of the research estimates showed that supermarket managers should pay particular attention to the number of monthly visits of customers to the store when looking for a group of customers with a potentially positive impact on current sales. Therefore, the authors of the article demonstrate that it is very important for supermarket managers to give much greater importance to customers who constantly visit the store. Another important conclusion of the research shows that

conducting a promotion campaign at the end of the year and at the beginning of August is much more beneficial. In addition, the authors say that setting a psychological price for cheap products (especially products below $10) increases the subconscious motivation to buy the consumer. Two other relevant conclusions are drawn from the research, namely, the fact that if the store offers the customer points it is extremely important to target the segments that are close to a certain amount of points, because they will react very well to the pressure of the points (to reach a certain threshold and receive a discount). Another interesting aspect is this time noticed among the segment of those who visit the store less often, and the authors claim that the store should not try to target them by sending messages referring to the points, because they will not react well to the pressure of points in a loyalty program. Another finding from the study indicates that when implementing the customer loyalty program, supermarkets should consider adopting a three-tier structure instead of a two-tier structure.

(26a) The article "A two-stage model for forecasting consumers' intention to purchase with e-coupons"(Wilding et al., 2015) presents a two-stage model for predicting consumer's intention to purchase using e-coupons. The model first segments consumers based on their demographic and psychographic characteristics, such as age, income, and shopping behavior. Then, it uses this segmentation to predict the likelihood of consumers using e-coupons to make a purchase. The article suggests that this model can be used by retailers to target e-coupon campaigns more effectively and increase sales.

The article highlights that the segmentation of customers based on demographic and psychographic characteristics allows for more targeted marketing, which can increase the effectiveness of e-coupon campaigns. Additionally, the article suggests that this model can also be used to evaluate the effectiveness of e-coupon campaigns in different customer segments. Overall, the article presents a two-stage model for forecasting consumer's intention to purchase with e-coupons and how the segmentation of customers can be used to improve the effectiveness of e-coupon campaigns.

(27a) The article "Telling the tale: applying a strategic brand storytelling process for SIP planning" (Wilding et al., 2015) discusses how a strategic brand storytelling process can be used for SIP (strategic integrated planning) in order to better understand and segment target audiences. The article suggests that by using storytelling as a planning tool, brands can create more effective and engaging narratives that connect with their target audiences on an emotional level.

The article highlights that the use of storytelling in SIP planning allows for a deeper understanding of the target audience's needs and desires, which can be used to segment the market more effectively. Additionally, the article suggests that a strategic brand storytelling process can be used to create more authentic and relatable brand narratives that resonate with target audiences and build stronger connections. Overall, the article presents how the use of brand storytelling as a planning tool in SIP can enhance market segmentation and improve communication with target audiences.

5. DISCUSSION AND CONCLUSIONS

5.1. PURPOSE OF EACH ARTICLE

The articles all focus on various aspects of customer segmentation in the retail industry (B2C).

Most of the articles (1a, 2a, 3a, 4a, 5a, 6a, 7a, 8a, 9a, 10a, 11a, 12a, 13a, 14a, 15a, 16a, 17a, 18a, 19a, 20a, 21a, 22a, 23a, 24a, 25a) have the purpose of studying customer segmentation in the retail industry, specifically in the context of online shopping, social media, and other technologies. Some articles (6a, 7a) also examine the influence of demographic variables such as gender and age on shopping behavior and how it can be used for segmentation. A few articles (1a, 12a, 25a) propose methods for segmenting customers. Article 27a (Telling the tale: applying a strategic brand storytelling process for SIP planning) presents the use of a strategic brand storytelling process for SIP planning.

Article 26a (A two-stage model for forecasting consumers' intention to purchase with e-coupons) presents a two-stage model for forecasting consumers' intention to purchase with e-coupons.

They cover topics such as "the role of shopping mission in customer segmentation"(Sokol & Holý, 2019), the impact of social media on consumer behavior, the use of RTLS technology in retail environments, the impact of gender on shopping styles, and the use of brand storytelling in retail planning. Additionally, several articles discuss the use of various data analysis techniques, such as partial least squares path modeling, to better understand consumer behavior and decision-making. Other topics that are covered include consumer loyalty to older brands, the influence of consumer demographics on online shopping behavior, and the use of artificial intelligence in marketing.

5.2. HOW IT RELATES TO SEGMENTATION

All the articles discuss different aspects of customer segmentation in the retail industry. The articles relate to customer segmentation in the retail industry, specifically in the context of online shopping, social media, and other technologies. Some articles (6a, 7a) focus specifically on the impact of demographic factors such as gender and age on shopping behavior and how it can be used for segmentation. They use different methods to understand consumer behavior and decision-making, and propose different segmentation methods such as partial least squares path modeling, web content mining, finite mixture partial least squares modeling, sequence analysis and neural networks.

5.3. IF IT REFERS TO A PARTICULAR SEGMENTATION STAGE

The articles do not explicitly mention any specific stage of segmentation, but they all focus on understanding consumer behavior and decision-making in the context of retail industry. The articles all focus on various aspects of customer segmentation in the retail industry (B2C).

5.4. SEGMENTATION METHOD IF IT EXISTS

The articles propose different segmentation methods such as partial least squares path modeling, web content mining, finite mixture partial least squares modeling, sequence analysis and neural networks to understand consumer behavior and decision-making. Some articles propose specific methods for segmenting customers, such as:

- Article 8a ("Customer segmentation by web content mining") (Zhou et al., 2021)
- Article 5a ("Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach") (Rezaei, 2015)
- Article 18a ("Heterogeneity in consumers' mobile shopping acceptance: A finite mixture partial least squares modelling approach for exploring and characterising different shopper segments") (Groß, 2018)
- Article 19a ("A sequence analysis approach to segmenting credit card customers") (Ho et al., 2021)
- Other articles do not propose a specific method, but discuss the use of technologies such as RTLS (Article 1a) or AI (Article 2a) in customer segmentation.

5.5. CONCLUSIONS

In conclusion, the articles reviewed in this systematic analysis provide a comprehensive understanding of the current state of research on customer segmentation in the B2C market. The articles cover a wide range of topics related to customer segmentation, from the use of technology to demographic factors, and propose different methods for segmenting customers. The studies examine the impact of various factors, such as social media, online shopping behavior, and

demographic characteristics, on customer segmentation in the retail industry. The studies also propose several methods for customer segmentation, including web content mining, partial least squares path modeling, sequence analysis, and artificial intelligence, which can be useful for businesses to better understand and target their customer segments. Overall, the analysis of these articles highlights the importance of understanding customer segments in the B2C market and the various ways in which businesses can use segmentation to improve their marketing strategies and increase their customer base.

REFERENCES

1. Arias-Oliva, M., Pelegrín-Borondo, J., Lara-Palma, A. M., & Juaneda-Ayensa, E. (2020). Emerging cyborg products: An ethical market approach for market segmentation. *Journal of Retailing and Consumer Services*, 55(October 2019), 102140. Retrieved from https://doi.org/10.1016/j.jretconser.2020.102140

2. Bernhard von Mutius, A. H. (2021). Customized Targeting Strategies for Category Coupons to Maximize CLV and Minimize Cost. *Journal of Retailing*, 97(4), 764–779. Retrieved from https://doi.org/10.1016/j.jretai.2021.01.004

3. Brand, C., Schwanen, T., & Anable, J. (2020). 'Online Omnivores' or 'Willing but struggling'? Identifying online grocery shopping behavior segments using attitude theory. *Journal of Retailing and Consumer Services*, 57(March), 102195. Retrieved from https://doi.org/10.1016/j.jretconser.2020.102195

4. Büttner, O. B., Florack, A., & Göritz, A. S. (2014). Shopping orientation as a stable consumer disposition and its influence on consumers' evaluations of retailer communication. *European Journal of Marketing*, 48(5–6), 1026–1045. Retrieved from https://doi.org/10.1108/EJM-04-2012-0210

5. Campbell, C., Ferraro, C., & Sands, S. (2014). Segmenting consumer reactions to social network marketing. *European Journal of Marketing*, 48(3–4), 432–452. Retrieved from https://doi.org/10.1108/EJM-03-2012-0165

6. Chen, S. S., Choubey, B., & Singh, V. (2021). A neural network based price sensitive recommender model to predict customer choices based on price effect. *Journal of Retailing and Consumer Services*, 61(October 2020), 102573. Retrieved from https://doi.org/10.1016/j.jretconser.2021.102573

7. Dennis, C., Brakus, J. J., Ferrer, G. G., Mcintyre, C., Alamanos, E., & King, T. (2018). A Cross-National Study of Evolutionary Origins of Gender Shopping Styles: She Gatherer, He Hunter? *Journal of International Marketing*, 26(4), 38–53. Retrieved from https://doi.org/10.1177/1069031X18805505

8. Dolnicar, S., Grün, B., & Leisch, F. (2011). *Management for Professionals Market Segmentation Analysis Understanding It, Doing It, and Making It Useful*. Retrieved from http://www.springer.com/series/10101

9. Dost, F., Wilken, R., Eisenbeiss, M., & Skiera, B. (2014). On the edge of buying: A targeting approach for indecisive buyers based on willingness-to-pay ranges. *Journal of Retailing*, 90(3), 393–407. Retrieved from https://doi.org/10.1016/j.jretai.2014.03.007

10. Ferracuti, N., Norscini, C., Frontoni, E., Gabellini, P., Paolanti, M., & Placidi, V. (2019). A business application of RTLS technology in Intelligent Retail Environment: Defining the shopper's preferred path and its segmentation. *Journal of Retailing and Consumer Services*, 47(March 2018), 184–194. Retrieved from https://doi.org/10.1016/j.jretconser.2018.11.005

11. Gary L. Lilien, Arvind Rangaswamy, A. D. B. (2017). *Principles of Marketing Engineering and Analytics*. (2017 DecisionPro, Incorporated,Ed.) (3rd Editio).

12. Groß, M. (2018). Heterogeneity in consumers' mobile shopping acceptance: A finite mixture partial least squares modelling approach for exploring and characterising different shopper segments. *Journal of Retailing and Consumer Services*, 40(September 2017), 8–18. Retrieved from https://doi.org/10.1016/j.jretconser.2017.09.002

13. Ho, H., Tien, K. M. (Terence), Wu, A., & Singh, S. (2021). A sequence analysis approach to segmenting credit card customers. *Journal of Retailing and Consumer Services*, 59(November 2020), 102391. Retrieved from https://doi.org/10.1016/j.jretconser.2020.102391

14. Huang, M. H., & Rust, R. T. (2021). A Framework for Collaborative Artificial Intelligence in Marketing. *Journal of Retailing*, (4). Retrieved from https://doi.org/10.1016/j.jretai.2021.03.001

15. Hubert, M., Hubert, M., Linzmajer, M., Riedl, R., & Kenning, P. (2018). Trust me if you can – neurophysiological insights on the influence of consumer impulsiveness on trustworthiness evaluations in online settings. *European Journal of Marketing*, 52(1–2), 118–146. Retrieved from https://doi.org/10.1108/EJM-12-2016-0870

16. Jones, R. P., Camp, K. M., & Fairhurst, A. E. (2015). Temporal and financial risk assessments: How time and money constrain shopper behavior and influence purchase solutions. *Journal of Retailing and Consumer Services*, 27, 154–163. Retrieved from https://doi.org/10.1016/j.jretconser.2015.08.002

17. Kotler, Keller, Shaw, S., & Davis, K. (2019). *Marketing Management. Journal of Marketing* (4th Europe, Vol. 37). Retrieved from https://doi.org/10.2307/1250781

18. Lissitsa, S., & Kol, O. (2016). Generation X vs. Generation Y - A decade of online shopping. *Journal of Retailing and Consumer Services*, 31, 304–312. Retrieved from https://doi.org/10.1016/j.jretconser.2016.04.015

19. Lloyd C. Harris, H. H. P. K. G. A. (2020). *Principles of marketing*. (Pearson,Ed.) (EIGHTH EUR).

20. Mark, T., Lemon, K. N., Vandenbosch, M., Bulla, J., & Maruotti, A. (2013). Capturing the evolution of customer-firm relationships: How customers become more (or less) valuable over time. *Journal of Retailing*, 89(3), 231–245. Retrieved from https://doi.org/10.1016/j.jretai.2013.04.001

21. Mathmann, F., Chylinski, M., de Ruyter, K., & Higgins, E. T. (2017). When Plentiful Platforms Pay Off: Assessment Orientation Moderates the Effect of Assortment Size on Choice Engagement and Product Valuation. *Journal of Retailing*, 93(2), 212–227. Retrieved from https://doi.org/10.1016/j.jretai.2017.02.001

22. Moon, S., Jalali, N., & Erevelles, S. (2021). Segmentation of both reviewers and businesses on social media. *Journal of Retailing and Consumer Services*, 61(March), 102524. Retrieved from https://doi.org/10.1016/j.jretconser.2021.102524

23. Mora Cortez, R., Højbjerg Clarke, A., & Freytag, P. V. (2021). B2B market segmentation: A systematic review and research agenda. *Journal of Business Research*, 126(December 2020), 415–428. Retrieved from https://doi.org/10.1016/j.jbusres.2020.12.070

24. Morgan, N. A., Whitler, K. A., Feng, H., & Chari, S. (2019). Research in marketing strategy. *Journal of the Academy of Marketing Science*, 47(1), 4–29. Retrieved from https://doi.org/10.1007/s11747-018-0598-1

25. Nishio, K., & Hoshino, T. (2022). Joint modeling of effects of customer tier program on customer purchase duration and purchase amount. *Journal of Retailing and Consumer Services*, 66(January), 102906. Retrieved from https://doi.org/10.1016/j.jretconser.2021.102906

26. Pallant, J., Sands, S., & Karpen, I. (2020). Product customization: A profile of consumer demand. *Journal of Retailing and Consumer Services*, 54(December 2019), 102030.

Retrieved from https://doi.org/10.1016/j.jretconser.2019.102030

27. Palmatier, R. W., Houston, M. B., & Hulland, J. (2018). Review articles: purpose, process, and structure. *Journal of the Academy of Marketing Science*, 46(1). Retrieved from https://doi.org/10.1007/s11747-017-0563-4

28. Philip Kotler, G. A. (2018). *Principles of Marketing*. Retrieved from www.pearsonglobaleditions.com

29. Phua, P., Kennedy, R., Trinh, G., Page, B., & Hartnett, N. (2020). Examining older consumers' loyalty towards older brands in grocery retailing. *Journal of Retailing and Consumer Services*, 52(July 2019), 101893. Retrieved from https://doi.org/10.1016/j.jretconser.2019.101893

30. Rezaei, S. (2015). Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach. *Journal of Retailing and Consumer Services*, 22, 1–15. Retrieved from https://doi.org/10.1016/j.jretconser.2014.09.001

31. Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(July), 333–339. Retrieved from https://doi.org/10.1016/j.jbusres.2019.07.039

32. Sokol, O., & Holý, V. (2019). The Role of Shopping Mission in Retail Customer Segmentation. *ArXiv*, (2014), 1–16. Retrieved from https://doi.org/10.1177/1470785320921011

33. Wang, T., & Lee, F. Y. (2020). Examining customer engagement and brand intimacy in social media context. *Journal of Retailing and Consumer Services*, 54(January), 102035. Retrieved from https://doi.org/10.1016/j.jretconser.2020.102035

34. Wilding, M., Benmore, C., Weber, R., Parise, J., Lazareva, L., Skinner, L., … Tamalonis, A. (2015). Exploring the Structure of High Temperature, Iron-bearing Liquids. *Materials Today: Proceedings*, 2, S358–S363. Retrieved from https://doi.org/10.1016/j.matpr.2015.05.050

35. Zhou, J., Wei, J., & Xu, B. (2021). Customer segmentation by web content mining. *Journal of Retailing and Consumer Services*, 61(January), 102588. Retrieved from https://doi.org/10.1016/j.jretconser.2021.102588