

Article

# Retailer–Consumer Sustainable Business Environment: How Consumers’ Perceived Benefits Are Translated by the Addition of New Retail Channels

Jing Zhu , Muhammad Awais Shakir Goraya \*  and Yu Cai

School of Business Administration, Southwestern University of Finance and Economics, Chengdu 611130, Sichuan, China; zhuj@swufe.edu.cn (J.Z.); 2150202Z9002@2015.swufe.edu.cn (Y.C.)

\* Correspondence: awaisgoraya@2016.swufe.edu.cn or awaiz\_26@hotmail.com; Tel.: +86-156-8098-0681

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**Abstract:** In the current era, consumers are living in a multi-channel shopping environment. Retailers are expanding their business channels to get the most out of their ongoing multi-channel businesses and to create a sustainable shopping environment for consumers. The extant literature is quite elaborative about the impact of new online channels on retailers, but a very limited part of the said literature discusses the impact of adding both new online/offline channels to the retailers’ existing business channels and the perceived benefits they create for consumers. This paper makes the comparison of multi-channel additions and their impacts on consumer benefits in creating a sustainable retailer–consumer business environment. This dimension of research is quite new regarding the subject of multi-channel shopping. In this paper, a simulated experimental design is adopted to analyze the impact of the multi-channel structure with a mix of different product types (experience and search) and the perceived benefit to consumers (perceived variety, perceived convenience, and perceived risk). The results show that, compared to the newly added offline channels, newly added online channels can make consumers more aware of the overall variety, increase perceived convenience, and reduce perceived risk. However, for retailers selling search products, the newly added online channel does not create any significant difference to the consumers’ overall perceived variety of the retailers.

**Keywords:** new retail channel(s); channel management; perceived consumer benefits; purchase intention

## 1. Introduction

Retail consumers are now “multi-channeled” to an extent in their viewpoints and behavior. They use both online and offline retail channels readily. To thrive in this new environment, retailers of all types should re-examine their strategies when exploring new sales channels and in selecting product types for their consumers. Nowadays, consumers show their purchasing intentions based on the perceived benefits of their productive shopping exercise, such as variety, convenience, trust, risk, and more [1]. These perceived consumer benefits are indeed an ever-increasing challenge for the retailing environment where consumers shop through a variety of online and offline channels. Based on the shopping attitude of consumers, one of the biggest challenges faced by retailers in the multi-channel environment is how retailers can create positive consumer benefits with the addition of new channels (online and offline) and offer different product types. To resolve this question, one must know that the retail business has changed dramatically over the past 20 years. The advent of the popularity of network technology has allowed consumers to buy online rather than exercising their

buying behavior through offline channels [2]. With the inception of third-party shopping platforms, such as Amazon, Taobao, Lynx, and Jingdong (JD), traditional offline retailers are having a tough time surviving without expanding to the online sale channel. Actually, the online retail environment is increasing sharply, which emphasizes the importance and awareness of the online retail environment to the offline retailers.

While we exert the importance of the online business in our research, one should not forget the value of the offline business as well [3]. Recently, Alibaba's (a well-known online shopping and business platform among consumers and retailers) strategic investment of Suning and Jingdong (JD) with Yonghui and Walmart has reached strategic cooperation, which explains the importance of offline businesses to the retailers for the upcoming business years. Currently, retailers cannot neglect the importance of both channels when deciding which route to take. This dilemma is not only a matter of debate among retailers, it is a matter of research argument among academicians and researchers. It depends on the product-type and the derived consumer benefits as to which channel is most appropriate, in the view of this study. The multi-channel environment presents new challenges and opportunities for both information and product types while adding new channels to the existing ones. This is equally true for "traditional" retailers like the GAP, which began business with physical stores, and "new" retailers like the New York-based eyeglass brand Warby Parker, which started out by selling online. Considering the scenarios of GAP and Warby Parker, all retailers need to effectively and efficiently manage their existing and newly added channels.

At points where this paper sheds light on the channel extensions, it is important to elucidate as to how this study contextually adds-up to the retailer–consumer sustainable business environment of the practitioner's guide. With the ever-changing business dynamics of retailing, this stream of research clarifies the sustainable business environment with the following reasons. Firstly, the retailing consumers are not static to one retail channel, their shopping patterns are varied over different retailing channels based on different product characteristics. Some consumers are inclined towards the online channels whereas few are towards the offline channels. In such a dilemma, retailers of all types are re-examining their strategies in exploring new sales channels and selecting product types for their consumers. This research effort has tried addressing this market concern with a scenario based experimental approach to create new academic and managerial implications. Secondly, nowadays, consumers show their purchasing intentions based on the perceived benefits which they feel best fit their productive shopping exercise such as variety, convenience, trust, risk, and so on. In shaping the just-mentioned consumer benefits and consumer preferences, the retailers are very concerned with providing a sustainable business environment. Moreover, sustainable perceived consumer benefits are no doubt an ever-increasing challenge for the retailing environment, an environment where consumers shop through varied channels. To address these varied behaviors, retailers are working on their channel expansions. With such retailing phenomena, this research effort empirically measures the retailing variation as to provide sustainable retailer–consumer business environment. Thirdly, one must know that the retail business has experienced an era of channel transfer over the past 20 years. With the popularity of network technology, consumers buy things online more often than over offline channels. Given the inception of third-party shopping platforms, such as Amazon, Taobao, Lynx, and Jingdong (JD) etc., physical retailers cannot maximize the purchase intentions of consumers without putting their businesses on online channels. Similarly, the online channels cannot just excel over the online shopping platform unless they get expanded over different channels to cater to more consumers.

Moreover, there are important nuances as to how adding new channels happens as well as where and how the retailer can start branching out. Additionally, what kind of improvement or additions create the most advantages or consumer benefits? There exist certain objective business cases to guide the opening of physical stores: 3 November 2015, the US based e-commerce giant Amazon opened its very first physical bookstore in Seattle. 30 September 2016, the famous Chinese online snack brand "Three Squirrels" opened its first offline store in Wuhu, Anhui. The CEO of Three Squirrels, Zhang Liaoyuan, planned to open 100 physical stores throughout the country. These business cases

demonstrate a direction for future channel management and an opportunity for retailers in improving their channel portfolios. To achieve the combined benefits of both online and offline businesses one must understand the functionality and operational management of the new business channel (online or offline) before attempting expansion. The newly embedded channel might not have a positive impact on the overall multi-channel business environment. The multi-channel business has an impact on the retailers, but, the impact on consumers needs to be determined. It is important to find out whether the product type will affect the impact? Found in the existing literature, the impact of multi-channels on retailers is addressed, but very limited research is done from the consumer perspective.

From the perspective of the adapted scope, the aim of this paper is to empirically examine how the strategy of adding new retail channels affects the perceived benefits and interests of consumers of both online and offline channels. Since consumers have different considerations for different products, sometimes the consumers go with the tangible knowledge of offline channels while also enjoying the convenience and ease of use provided by the online channels. To be specific, the paper tries to answer the following research questions for multi-channel retailers in a sustainable business environment:

**RQ1.** *What are the effects of the addition of new online and offline channels on consumer benefits?*

**RQ2.** *How do retailers with different product characteristics adopt new retail channels to identify different effects?*

To address the above questions, this paper develops a research framework and employs a structural equation modeling approach as well as multiple linear regression analysis. To be specific, (1) This paper studies and compares two channel expansion strategies—adding new offline channels based on online channels, and adding new online channels based on offline channels. (2) This paper analyzes the impact of the new channel on consumer perceptions, closing the gap existing in the channel expansion theory. (3) This article classifies product types into experience products and search products, not only considering the comparison of consumer perceived benefits under all product types, but also examining the differences in consumer perceived benefits among different product categories.

The rest of the paper is structured as follows. The next section presents the theoretical background of the paper. The third section proposes the hypothesis development in a research model based on new channels (the addition of new offline and online channels to existing channels), the product category, the perceived consumer benefits, and purchase intention. The research methodology is discussed in the fourth section, followed by the analysis of results in the fifth section. The final section concludes the study with a discussion of the results, the theoretical and practical implications, as well as limitations and future research directions.

## 2. Theoretical Background

Retailer-focused research is quite limited in the current literature and does not discuss how to succeed in the multi-channel environment through critical innovations such as adding new channels [4]. The framework of adding channels emerged in past studies, which somewhat sheds light either on the addition of online channels to existing channel frameworks, or discusses the Omni environment. To the best of the authors' knowledge, the traditional and non-traditional retailers never had detailed insights on the addition of both online and offline channels as a whole for their business portfolios and how these additions translate to consumer benefits [5]. Retailing is experiencing new challenging environments daily, in fact, to thrive in the new environment. Retailers of all stripes and origins need to deploy new strategies that reduce friction in every phase of the buying process for the consumers. Not only that, but the newly deployed strategies should result in increased consumer benefits [6]. This means simultaneously adding new channels to existing ones to remove initial uncertainties and barriers in the purchase process for consumers and getting a detailed comparison of the implications to adding either online or offline channels for retailers [7]. This strategy should allow retailers to get their products (any category) to consumers in the most convenient and cost-effective way [1].

### 2.1. New Retail Channels

As online retailers open stores and showrooms, giving credence to showrooming ideology, traditional offline retailers increase their internet presence at the same time, which exposes the web rooming context. It is vital for practitioners and researchers alike to understand how such “multi-channel” initiatives affect demand and the operational efficiency of the retailer. Multi-channel conjunction reflects the reality that, while online retail is the fastest-growing component of retail in many countries, off-line retailing still anchors the sector. Both observations also apply to international markets; China, for example, is on target to become the largest global e-commerce retail market, but offline retail also remains strong and significant. Therefore, retailers of all types and in all locations increasingly interact with consumers through multiple touch points in the global consumer economy making multi-channel retailing a growing norm.

As discussed earlier, in the extant literature, there are many research papers regarding new online channels, but only a few scholars have studied the impact of physical channels. Certain research paradigms used a database of companies where 85 internet channel additions were made over the last ten years in the British and Dutch newspaper industries. They found that, after adding new channels, few companies experienced a relatively significant drop in their circulation or advertising revenues [8]. Moreover, other research papers analyzed the leader of the music industry “Tower records” and found that the emergence of new channels had no significant impact on the sales of the already existing channel [9,10].

Existing research articles also analyzed the corporate performance of companies who added online channels to their offline ones over the span of 10 years and found that, if the retailer kept the online channel for its communication medium, there was a positive impact on the company’s stock price and on their business as a whole. Conversely, if the online channel was treated as the sales channel, the results stated otherwise [11,12]. The authors can conclude that, if the firm keeps the online channel as the communication medium in the first few years and then uses it as a sales channel, then the company’s performance will improve. One study analyzed about 25 different products in the Netherlands and found that, by adding the online channels, the retailers had a short time significant impact on the physical store in the city center but, in the long run, it was very likely that a negative impact might occur [13]. Moreover, in the last few decades, it is believed that a huge impact by online technology in the retail industry exists. A study indicates that the online retail mechanism will shake the status of offline retail stores [14]. During the study those authors found three online channel advantages over offline channels through their empirical study: (1) Using the online channels, consumers have ease of access to the product information. (2) Consumers have the ease of use and convenience in the communication process. (3) In online channels, the transaction process is simplified. Possibilities exist such that consumers might lack enough information prior to making a purchasing decision. Some researchers note that, in the retail settings where consumers select from a catalog or internet site without being able to fully inspect the product, consumers lack the decision quality they have for tangible products [15,16]. A full inspection might be important to some consumers, especially when the product has non-digital attributes. Therefore, the consumers’ inability to touch and feel products with non-digital attributes before buying through catalogs or online can (1) act as a deterrent to purchasing, and (2) increase the operational costs should they return the products after experiencing a difference between the expected and delivered product. This uncertainty matters more in some product categories, and more so for some segments than others. While the authors focus on the offline showroom as a source of information and a method for resolving uncertainty regarding non-digital attributes, a number of other papers study the complementary phenomenon of brick and mortar retailers providing information through the online channel [17,18].

However, the current research on the newly added channels, either online or offline, is very limited, considering that, Avery et al. [10] research played a foundation role in providing new dimensions and insights to the existing literature. These studied the impact of four new stores of high-end apparel, accessories, and furniture retailers on the basis of catalog channels and online channels. During their

research findings, they argued that the physical channels, acting as an alternative to the existing catalog and online channel, have a significant role. Moreover, it was also argued that, while one shops in the offline channel, the shipping and handling fees are avoided. The earlier literature points out that valuable brand associations are attributed to physical stores because it is their presence that will allow consumers to switch from catalog channels and online channels. The past literature argues that positive brand association is formed by the consumer's understanding, or by the support provided at the physical stores, and this positive brand association of the new channel can be transferred to other channels to produce a halo effect. Simon and Arndt [19] argue that this effect stems from the growing brand awareness of consumers and, only in regular contact with the physical store conditions, will its positive brand association be transferred to other channels, such as an online channel. Chi et al. [20] suggest that the online channel is a set of marketing channels with the directory channel as a push marketing channel, making it easier to cultivate consumer brand awareness. Through the use of a quasi-experiment and data matching method, past research has concluded that, in the short term, the new channel will erode the catalog channel, but will not affect the online channels. However, in the long term, the new channel will produce a positive effect on all channels [10]. Certainly, when a firm adds new channels, existing channels do get affected. Avery et al. [10] studied whether, and if so why, adding new offline stores in a market helps or hurts online sales. That research focuses on the more commonly studied "bricks to clicks" phenomenon, the addition of an online channel to an existing offline channel. Online sales were found to increase when offline stores enter the market, initially from new consumers, in particular, and then in general as time progresses. Conversely, catalog sales are affected adversely, confirming earlier findings [21].

## 2.2. Product Characteristics

According to different classification criteria, products can be divided into many categories. Upon reading the relevant literature, there are the following considerations in terms of product categories: (1) According to the degree of effort that consumers spend at the time of purchase, the products are divided into convenience products, optional products, and special items. The extant literature argues that convenience goods are the ones for which consumers perceive as low-risk goods, requiring only the least amount of money to make a purchase, and usually there exists a higher frequency of buying such goods, like eggs, soap, and more. Concurrently, there are the experience products which, at the time of purchase, require more time and understanding to meet the consumers' expectations, such as comparisons of their attributes with other similar products and garnering all aspects of information about the products as for clothing or other textile products. However, the extant literature argues that special goods are the ones which the consumers are willing to pay more for and spend more time to understand by comparing them with the information of other similar products, such as cars and other luxury goods. (2) Searching for the product according to the product information means that the products are divided into "search" products and "experience" products. "Search products" are the ones for which the consumers have sufficient knowledge of the quality and applicability of the product before buying. During the purchase of such products, consumers usually experience less uncertainty, as when buying a CD or mobile phone, for example. Academic insights highlight that the "experience products" are the ones that consumers cannot perceive unless they have bought and used them previously. The main attribute of such products is the experience or the search cost. Found in many cases, the search cost is high for experience products like cosmetics, perfume and more. (3) According to the product function, the product is divided into functional products and enjoyment products [22]. Authors also argue that functional products are the ones for which the consumers are primarily concerned with achieving a certain purpose while using them [23]; slippers, for example. The enjoyment products are the ones from which consumers derive emotional or sensory pleasure, like movies. Product categories with relatedness have always been considered the source of focus for many consumers and is a tricky question for many retailers. The result of product selection over the different channels is being examined by quite few researchers at this time [24,25]. It is

believed that product categories shelved at different channels according to their related qualities and characteristics helps to clarify the purchase intentions of consumers [11]. There also exist the research patterns in the extant research which argues that the creation of coordinated channels for different product categories will lower the cannibalization between online and offline channels [8,10,26].

### 2.3. Consumer Benefits

Many academicians and practitioners are of the view that either the real or perceived value that a customer experiences or believes he/she is receiving through interaction with a company is a benefit. Benefits might include the resolution of a problem, the achievement of a desired outcome or the fulfillment of a need through a purchase; a feeling of confidence following a purchase; or satisfaction with post-purchase service. Benefits are the positive values that a product or service conveys, as viewed in the consumer marketing domain. Generally, the accepted practice for marketers is to prioritize consumer benefits within consumer marketing because benefits, in general, drive more behavioral or emotional reactions.

According to the present literature regarding channel integration, consumer benefits are mainly composed of “perceived variety”, “perceived convenience”, and “perceived risk” (Emrich et al. [1]). Bilgicer et al.; Kahn and Wansink [27,28] argue that “perceived variety” refers to the consumer’s judgment of the quantity and variety of a particular category of goods. Broniarczyk et al. [29] found that consumers’ perceived variety was influenced by three factors: first, the size and space occupied by the merchandise category; second, whether the consumer of this type of product has some affection for the category; and third, the brand’s classifications in the goods inventory. While it was found that the first two factors have a more significant impact on consumer perceived variety, Seiders et al. [30] argue that “perceived convenience” mainly includes the following four aspects: first, the convenience of availability, which mean that consumers can quickly reach the retailer; second, search convenience that enables consumers to easily identify and select the goods they want to buy; third, the convenience in obtaining the product—consumers can simply buy the goods they want to buy. Fourth is transaction convenience, consumers can quickly and easily perform the transaction. Cox [31] first proposed the concept of “perceived risk” and has explained it as, consumer behavior always working under the influence of risks; consumers cannot expect his/her behavior to be very close to any definite desired outcome and, moreover, sometimes this behavior makes them feel unhappy. Thus, perceived risks contain both the dimensions of uncertainty and adverse outcomes. Perceived risk not only includes the consumer’s prior access and processing of information, but also the subsequent process of buying. Relating to the two dimensions of perceived risk, scholars have defined the following: Peter et al. [32] define uncertainty from the perspective of an individual’s trust probability [32]. Taylor [33] argues that unfavorable results refer to the importance of loss [33]. Dowling and Staelin [34], in conjunction with previous studies, defines the perceived risk as follows: perceived uncertainty and adverse outcomes when consumers purchase products or services [34].

## 3. Theoretical Framework and Hypothesis Development

### 3.1. Impact of New Retail Channels on Consumer Perceived Variety

Compared with offline channels, online channels can provide more product variety [35]. Avery et al. [10] pointed out that, although offline channels provide more types of products than catalog channels, they are far short of the variety of products offered by the online channels [10]. Consequently, offline channels provide consumers with far fewer information search functions than online channels. However, the presence of offline stores can foster consumer brand awareness [10]. Added to the existing offline stores, nowadays more business executives have begun to think of opening their own physical stores for presenting “live advertising” for their brands, rather than placing their products on pure sales channels. They believe that, by opening offline stores, consumers can access brand information more frequently and in a better way. Some scholars discuss the role of

the company's own offline store, wherein they believe that opening an offline store is mainly to build or enhance the role of the brand rather than selling the product for profit [36].

Scholars and practitioners also believe that, due to differences in product types provided by offline and online channels, the degree of the perceived variety of a retailers' newly added offline and online channels is different. The retailers' new online channels can enhance consumer perceived variety more than new offline channels. According to the prospect theory [37], when a retailer has added new online channels, the consumers' perception of the retailer's variety for the combined channels is significantly higher than when the retailer has added a new offline channel. Based on the above argument, the authors propose the following assumption:

**Hypothesis 1 (H1).** *Compared with new offline channels, retailers' new online channels can more effectively improve consumers' overall perceived variety.*

### 3.2. Impact of New Retail Channels on Consumers' Perceived Convenience

The perception of consumer convenience in this study refers to the time and effort saved during the consumer purchase process, which mainly includes search, evaluation, acquisition, and other aspects of convenience. By providing the availability of the internet, consumers can search for product information anywhere without being bound by time and place. However, if consumers choose to make purchases in offline stores, they will be bound by the store's business hours. Additionally, consumers need to spend some time and money to find offline stores [38]. The online channel is an information-rich and inexpensive channel for product searches. It provides consumers around the world with a wealth of product information [39]. Its ability to store and retrieve information cannot be surpassed by any other channel [40]. Compared with offline channels, consumers can more easily compare information between various products on the internet [17].

However, due to differences in the convenience of shopping between the offline channels and the online channels, retailers have different degrees of convenience to add new offline and online channels. The retailers' new online channels can enhance consumers' perceived convenience compared to adding new offline channels. According to the prospect theory, under the condition that retailers have added online channels, the increase in consumers' perceived convenience of the retailer's overall channel is obviously more than the increase in perceived convenience of the retailer's newly added offline channels. Therefore, the authors propose the following hypothesis:

**Hypothesis 2 (H2).** *Compared with new offline channels, retailers' new online channels can more effectively improve consumers' overall perceived convenience.*

### 3.3. Impact of New Retail Channels on Consumers' Perceived Risks

The consumer perceived risk mainly refers to the consumer's uncertainty about the product's performance before shopping occurs. Offline retail stores can provide consumers with the opportunity to touch and perceive goods before buying them, thus increasing the consumer's certainty in purchased products, thereby reducing the risk of them being returned after purchase. Online stores cannot provide such opportunities for consumers, leaving consumers with uncertainty. This uncertainty increases the likelihood of returns [35,41,42]. When shopping at the offline store, consumers can personally consult with related sales staff to gain a better understanding of the product. Although consumers can also consult online customer service when shopping at online stores, they are not face-to-face [10]. Therefore, the presence of offline stores can also reduce consumer uncertainty during the shopping process. Customers can have a better understanding of products, brands, and retailers' services, but online channels cannot provide these functions [43]. Through the establishment of a "many-to-many communication" model, some scholars have analyzed that, when consumers shop on the online platform, the uncertainty surrounding the retailers and products is greater than the uncertainty during shopping at offline channels [44].

Moreover, as consumers purchase goods through offline and online channels, the order of payment and exposure to goods is entirely different at both stores, leading to different levels of consumer perception about newly added retail channels. The authors can conclude that the addition of offline channels by retailers can reduce the consumers' perceived risk more than the addition of new online channels. According to the prospect theory, under the condition that a retailer adds new offline channels, the consumers' perceived risk reduces significantly compared to the addition of new online channels. Accordingly, the following hypothesis is proposed:

**Hypothesis 3 (H3).** *Compared with new online channels, retailers' new offline channels can more effectively reduce consumers' overall perceived risk.*

#### *3.4. Impact of Consumer Benefits on Purchase Intention*

Academicians believe that, in addition to store locations and commodity prices, consumer perceived variety has also become an important factor influencing consumer purchasing behavior [16]. The reason why consumer perceived variety has such an important influence is mainly due to three reasons: First, if consumers have a fixed preference for a certain product, they will perceive the product variety in shops to purchase the desired product. Variety in products increases the likelihood that they will purchase the desired product, thus making the customer more willing to believe that the retailer provides the product they need [1]; Second, if consumers do not have a fixed preference for a certain product, then retailers who are selling more types of products provides consumers with a higher choice value, thus making consumers indifferent to a preference for certain retailers. Hence, consumer perceived variety can be more important, as in this case, because maintaining a flexible variety is likely to become an important decision for consumers when choosing a retailer [27,28]. The reason why consumers are unwilling to choose from a small number of similar products might be because they believe that better comparisons can be made between more categories to buy more satisfying goods [25]. Additionally, if the same retailer has access to a large number of similar and other types of products, it can reduce the possibility of switching retailers, which can reduce their search costs. Finally, when the consumer is concerned about the perceived variety, it also might be because they want to come in contact with different alternatives while buying. This quest for variety is mainly due to the need to keep in touch with new similar products, thereby stimulating them to change their existing preferences to achieve a higher degree of satisfaction [29]. Therefore, the authors think that once the retailers add new channels, the increase in consumer perceived variety can increase consumers' willingness to buy.

Moreover, the empirical results show that convenience has a significant positive effect on consumer satisfaction and behavioral intentions [45]. Consumers might regard convenience as an external factor for the core services provided by retailers. Keaveney [46], supplemented by the study of the relationship between convenience and consumer trust transfer behavior, pointed out the following non-convenience factors among consumers [46]: the distance between the retail store and the consumer, the difference between the business hours and the consumer's schedule, a long waiting time for service, and more [46]. These inconvenience factors will prompt consumers to abandon retailers and choose their competitors. Consumers' perceived convenience has a very significant effect on purchase intention [47]. The existing literature analyzes that consumer perceived convenience can influence the consumer satisfaction positively, thus igniting repurchase intentions [30]. Therefore, this article supposes that once the retailer adds new channels, the increased perceived convenience can increase consumers' purchase intentions.

According to the theory of planned behavior [48], the consumers' behavioral attitudes influence their actual actions through behavioral intentions. Therefore, upon sensing risk, the consumer's purchase intention gets affected. Most scholars find that there is a significant negative relationship between perceived risk and purchase intention. The risk consumers feel in the decision-making process will have a direct impact on their preferences and purchase intentions. Consumer perceived



risk has a negative impact on the initial purchase intention and repurchase intention of consumers [49]. Oude and Van [50] Studied the relationship between perceived risk and purchase intention in the context of online shopping. They found that the consumers' perceived risk of personal privacy and security will not only affect their purchase intention but change their shopping patterns. Therefore, this article proposes that once retailers increase their channels, the reduction in consumer perceived risk can increase their willingness to purchase. Alongside H1, H2, and H3, this article also proposes the following hypotheses:

**Hypothesis 4a (H4a).** *Consumers' perceived variety has a stronger effect on purchase intention in new online channels than in new offline channels.*

**Hypothesis 4b (H4b).** *Consumers' perceived convenience has a stronger effect on purchase intention in new online channels than in new offline channels.*

**Hypothesis 4c (H4c).** *Consumers' perceived risk has a stronger effect on purchase intention in new offline channels than in new online channels.*

### 3.5. Effects of Product Characteristics

Concerning search-based products, consumers can make purchases based on information provided by the retailers' online stores. However, for experience products, consumers need to sense the products and try them out before they can make accurate judgments [50]. Therefore, compared to experience products, consumers are more willing to collect information on search products on the internet. Therefore, this article argues that for retailers operating with search products, the addition of new online channels can increase the consumer's perception of variety compared to retailers who operate with experience products. Moreover, due to the addition of new online channels for retailers operating with search products, the increase of consumers' perceived convenience is greater than the increase in the perceived convenience of retailers offering experience products.

Since experience products do not have specific judgment parameters, different consumers might have the opposite conclusion about the same experience product. Therefore, the information provided by retailers operating with such products might not be enough to cause consumption in the online store or the desire to buy. Some scholars have extended the above viewpoint and have found that, when the product is an experience-type, retailers cannot provide consumers with enough sensory traits about the product online [51]. Although online shopping can save consumers time and effort, in the case of experience products, consumers perceive more risk in the online buying of these products because they lack the tangible consciousness about the products before they buy [52]. Previous research also shows that, under the B2C conditions, consumers are more likely to experience performance risk, psychological risk, and functional risk when faced with experience products. Therefore, in conjunction with H1, H2, and H3, the authors propose the following three hypotheses:

**Hypothesis 5a (H5a).** *For retailers selling search products, the addition of new online channels has a more significant effect on consumer perceived variety compared to retailers selling experience products.*

**Hypothesis 5b (H5b).** *For retailers selling search products, the addition of new online channels has a more significant effect on consumer perceived convenience compared to retailers selling experience products.*

**Hypothesis 5c (H5c).** *For retailers selling experience products, the addition of new offline channels has a more significant effect on the reduction of consumer perceived risk compared to retailers selling search products.*

Based on the above discussion, the conceptual framework of this study, consisting of all the aforementioned hypotheses, is presented in Figure 1.

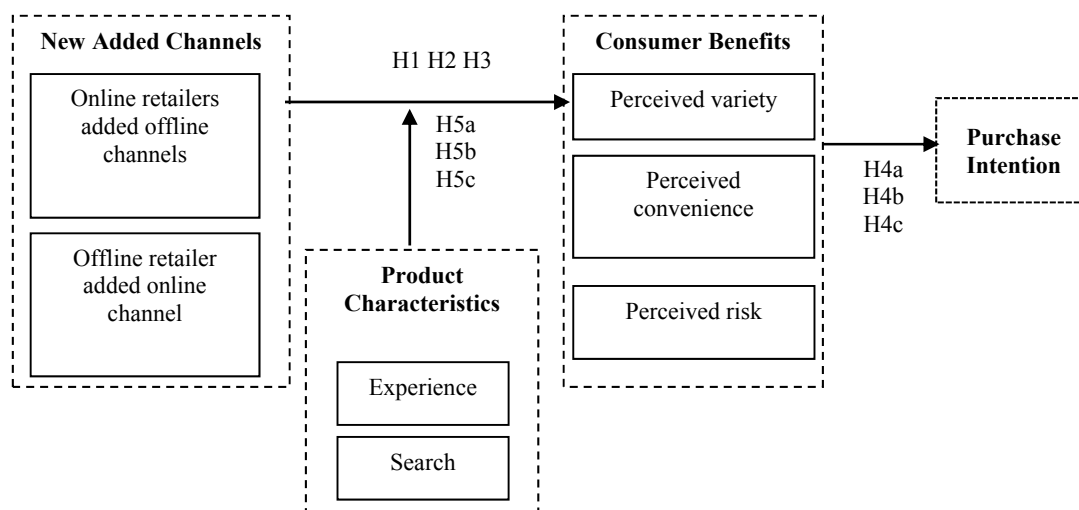


Figure 1. The proposed research framework.

## 4. Methodology

### 4.1. Experimental Design and Subjects

This study adopted a  $2 \times 2$  scenario-based experimental design [1], where two product types (experience product versus search product)  $\times$  two new channel modes (offline channel added by online retailer versus online channel added by offline retailer) are included. While considering the product types, the most generalized product types are selected in this study since consumers mostly have demand for these two types of goods and relevant purchase experience. Hence, clothes are selected to represent experience products, while the mobile phone represented search products. To eliminate the influence of the retailer brand on the subjects, this paper adapts virtual retailer brands A, B, C, and D. The four experimental scenarios are presented as follows:

**Experiment 1-1.** New offline channel added by the online retailer with experience products

**Experiment 1-2.** New offline channel added by the online retailer with search products

**Experiment 2-1.** New online channel added by the offline retailer with experience products

**Experiment 2-2.** New online channel added by the offline retailer with search products.

In each scenario, there are two stages: Stage 1, the current situation of the retailer with a single channel (online or offline channel) is described; Stage 2, the retailer (online or offline) introduces a new channel (offline or online channel). The subjects were randomly assigned to each scenario.

### 4.2. Questionnaire Design

The authors adapted multi-item scales from the well-established consumer and channel integration research paradigms to measure each of the latent variables. The new retail channel was adopted from Shim et al. [53]; perceived variety was adapted from Kahn and Wansink [28]; perceived convenience was adapted from Paul et al. and Seiders et al. [54,55]; perceived risk was adapted from Biswas & Biswas and Inman [56,57]; and purchase intention was adapted from Baker et al. and Zeithaml et al. [58,59]. The detailed measurement items used are listed in Appendix A (Table A1). While the questionnaire was originally developed in English, it was then translated into Chinese to help respondents understand. The authors worked according to the approach of Bhalla and Lin [60] by adopting the back-translation technique to ensure the linguistic equivalence of the two versions. Several professors and doctoral students reviewed the initial version of the questionnaire and provided feedback on content validity and the clarity of instructions. Their feedback led to several changes in the item wording and the final version. To check the face validity of respondents, the authors refined

the questionnaire wording, assessed logical consistencies, judged ease of understanding, and identified areas for improvement. Overall, the questionnaire was regarded as concise and easy to complete. All items (except the demographics) used a 7-point Likert scale.

A pilot study was conducted to ensure the rationality of the setting of the questionnaire, to check the description of the items, and to further verify the reliability and validity of the scales. During the pilot study, questionnaires were distributed using a convenient sampling method at university campuses in southwestern China. A total of 120 ( $4 \times 30$ ) scenario-based questionnaires were issued to measure the behavioral intention of consumers in an experimental approach [1], and 114 valid samples were processed for analysis. According to the results, the Cronbach's Alpha values of the pilot study are all greater than 0.8, and both the corrected and total correlations are greater than 0.5. Therefore, there are no reliability issues and no items needed to be deleted. Moreover, the KMO values of the pre-test results are all greater than 0.6 and the cumulative variance is also greater than 50%. The factor loading for each item is greater than 0.7. Therefore, no validity issues exist as well.

In the formal experiments, the random sampling technique was adopted. Similar to the pilot study approach, the online experiment is a scenario-based experiment for determining the behavioral approach of consumers [1]. The online survey is conducted via Sojump, which is the largest online survey service provider in China. To ensure the quality of responses, this study used Sojump's paid sample service, which allows for the collection of data from over 2.6 million participants with diverse demographic backgrounds from different cities in China. The said respondents are actual respondents who exercised their buying habits often. The record showed that 535 questionnaires were distributed, of which 524 responses are valid for analysis. The sample statistics show that males accounted for 46.18% of the total sample while females accounted for 53.82% of the total sample size. Regarding age, the respondents are from 18 years of age and above, and the vast majority of subjects held a bachelor's degree or above, sample characteristics are presented in Table 1.

**Table 1.** The sample characteristics.

Measures	Items	Frequency	Percentage
Gender	Male	242	46.18%
	Female	282	53.82%
Age	18–23 years	52	9.92%
	24–29 years	206	39.31%
	30–35 years	140	26.72%
	36–40 years	72	13.74%
	40 years and above	54	10.31%
Education level	College and below	67	12.79%
	Undergraduate	343	65.46%
	Masters and above	114	21.75%

## 5. Results

We opted for the two-step approach by Gerbing and Anderson [61] for the instrument validation and hypothesis testing. Moreover, the SPSS 24 software (IBM, New York, NY, USA, 2018) package was used to analyze the research model.

### 5.1. Instrument Validation

The instrument validation in this research is examined by estimating the initial reliability check of each of them at the item and construct level. At the item level, factor loadings of each item are all above the recommended value of 0.6 [62]. At the construct level, both the internal consistency (Cronbach's alpha) and KMO values are well above 0.70 (Table 2), thus confirming the reliability for all the constructs [63]. Additionally, significant item loadings on their designated latent variables are also greater than 0.70, which suggests there are no validity issues in the scale [62,64].

**Table 2.** The results of the confirmatory factor analysis.

Variables	Items	Factor Loadings	CA	KMO	CR	AVE
Perceived variety	PV1	0.884	0.872	0.801	0.913	0.724
	PV2	0.891				
	PV3	0.770				
	PV4	0.853				
Perceived Convenience	PC1	0.895	0.855	0.722	0.912	0.775
	PC2	0.896				
	PC3	0.850				
Perceived Risk	PR1	0.866	0.889	0.836	0.923	0.75
	PR2	0.887				
	PR3	0.882				
	PR4	0.829				
Purchase Intention	PI1	0.876	0.871	0.735	0.921	0.795
	PI2	0.908				
	PI3	0.891				
Situational Authenticity	RC1	0.840	0.836	0.717	0.902	0.754
	RC2	0.884				
	RC3	0.880				

Note: CA = Cronbach's alpha, KMO = Kaiser-Meyer-Olkin statistics, CR = composite reliability, AVE = average variance extracted.

## 5.2. Direct Effect and Moderating Effect

In this study, new types of channels and product types are used as dummy variables. The product categories are experience and search products. The authors first performed the univariate analysis to examine the direct effect of a retailer's newly added channel approach on consumer perceived variety, perceived convenience, and perceived risk. Moreover, product types are used as a moderator. The results of the analysis are as follows.

### 5.2.1. Perceived Variety

During Scenario 1 (new offline channel  $\times$  experience product), with a sample size of 130, the average value of perceived variety is 5.2173; in Scenario 2 (the new offline channel  $\times$  search product), with a sample size of 125, the average value of perceived variety is 4.9720. Regarding Scenario 3 (new online channels  $\times$  experience products), with a sample size of 134, the average value of perceived variety is 5.3358; in Scenario 4 (new online channel  $\times$  search product), with a sample size of 135, the average value of perceived variety is 5.4352. Concerning each different new channel scenario, the sample size of the new offline channels is 255, for which the average perceived variety of the respondents is 5.0971; however, the sample size of new online channels is 269, for which the average perceived variety of the respondents is 5.3857. Furthermore, in terms of the product categories, the sample size of experience products is 264, for which the average perceived variety of the respondents is 5.2775; whereas, the sample size of the search products is 260, for which the average perceived variety of the respondents is 5.2125.

According to the inter-subject test results, the direct impact of a retailer's new channels on the perceived variety of consumers is significant ( $F = 7.965$ ,  $p = 0.005$ ), while the moderating effect of product type on the perceived variety is weakly significant ( $F = 2.796$ ,  $p = 0.095$ ) (Table 3).

**Table 3.** The inter-subject effects of perceived variety.

Dependent Variable: Perceived Variety					
Source	Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Corrected model	15.404 <sup>a</sup>	3	5.135	3.964	0.012
Intercept	14,375.008	1	14,375.008	10,341.246	0.000
New channel	11.072	1	11.072	7.965	0.005
Product type	0.697	1	0.697	0.501	0.479
New channel × product type	3.887	1	3.887	2.796	0.095
Error	722.834	520	1.390		
Total	15,154.750	524			
Corrected total	738.238	523			

<sup>a</sup>  $R^2 = 0.021$ .

Table 3 shows that the retailers' addition of new channels has a significant impact on improving the degree of perceived variety of consumers and that the mean value of the perceived variety of the respondents to the new online channels is significantly greater than the mean value of perceived variety for the offline channel ( $5.3857 > 5.0971$ ), which meant that the addition of a channel was more significant if it was a new online channel. Therefore, H1 was supported.

Table 4 shows that in the case of an experience product, there is no significant difference in the perceived variety by consumers when adding a new online channel by retailers ( $F = 0.667$ ,  $p = 0.415$ ); however, in the case of search products, the impact of the addition of a new online channel on the perceived variety of consumers is significant ( $F = 10.017$ ,  $p = 0.002$ ). Therefore, retailers operating with search products could increase the consumers' perception of variety upon adding a new online channel, as compared to a new offline channel. Therefore, H5a was supported.

**Table 4.** The univariate test for perceived variety.

Dependent Variable: Perceived Variety						
Product Type		Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
<i>Experience Products</i>	Comparison	0.927	1	0.927	0.667	0.415
	Error	722.834	520	1.390		
<i>Search products</i>	Comparison	13.925	1	13.925	10.017	0.002
	Error	722.834	520	1.390		

### 5.2.2. Perceived Convenience

In Scenario 1 (new offline channels × experience products), the total sample size was 130, and the average consumer's perceived convenience is 5.4513; in Scenario 2 (the new offline channel × search product), the total sample size is 125, for which the average perceived convenience is 5.3947. In Scenario 3 (new online channels × experience products), the sample size is 134, for which the average consumer perceived convenience is 5.3483. In Scenario 4 (new online channel × search product) the total sample size is 135, for which the average perceived convenience of consumers is 5.4420. Looking at the new channel approach, the total sample size of the new offline channels is 255, for which the average consumer perceived convenience is 5.4235, the total number of new online channels is 269, and the average consumer perceived convenience is 5.3953. Considering the product categories, the total sample size of experience products is 264, for which the average consumer perceived convenience is 5.3990, and the total sample size of the search products is 260, for which the average consumer perceived convenience was 5.4192.

Based on the results of the inter-subject analysis, adding new retail channels does not have a significant impact on the consumer's perceived convenience ( $F = 0.080$ ,  $p = 0.777$ ), moreover, the interaction of a retailer's new channel addition and product type on consumer perceived convenience also does not have a significant impact ( $F = 0.583$ ,  $p = 0.445$ ) (Table 5).

**Table 5.** The inter-subject effect of perceived convenience.

Dependent Variable: Perceived Convenience					
Source	Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Corrected model	0.899 <sup>a</sup>	3	0.300	0.236	0.871
Intercept	15,317.003	1	15,317.003	12,080.385	0.000
New channel	0.102	1	0.102	0.080	0.777
Product type	0.045	1	0.045	0.036	0.851
New channel × product type	0.739	1	0.739	0.583	0.445
Error	659.320	520	1.268		
Total	15,991.22	524			
Corrected total	660.219	523			

<sup>a</sup>  $R^2 = 0.021$ .

Table 5 shows that the effect of a retailer's addition of new channels on the consumer's perceived convenience is not significant, and the average value of the perceived convenience in the case of adding a new online channel is less than the average of the perceived convenience in the case of adding a new offline channel ( $5.3953 < 5.4235$ ). However, the results also show that the mean values were very close to each other, which means that a retailers' addition of a new offline and new online channels did not contribute to the perceived convenience of consumers, as there was no significant difference between these two conveniences. Therefore, H2 was not supported. Table 5 shows that the moderating effect of product type on the consumer's perceived convenience was also insignificant. Specifically, for retailers with either experience or search products, the addition of new online channels and new offline channels to consumers did not make a significant difference. Therefore, H5b also was not supported.

### 5.2.3. Perceived Risk

In Scenario 1 (new offline channel × experience product), the total sample size was 130, and the average consumer's perceived risk is 2.2019; in Scenario 2 (new offline channel × search product), the total sample size is 125 and the average perceived risk of consumers was 2.3740. In Scenario 3 (new online channel × experience product), the sample size is 134 and the average perceived risk of consumers is 2.9216. In Scenario 4 (new online channel × search products), the total sample size is 135 and the average consumer perceived risk is 2.7130. Examining the new channel approach, the total sample size of the new offline channel is 255 and the average consumer perceived risk is 2.2863 while the total number of the sample size for new online channels is 269 and the average consumer's risk perception is 2.8169. Regarding the product categories, the total sample size of experience products is 264 and the average consumer-perceived risk is 2.5672; the total sample size of the search products is 260 and the average consumer-perceived risk is 2.5500.

According to the inter-subject test results, the direct impact of the retailer's addition of a new channel on consumer perceived risk was significant ( $F = 37.194, p = 0.000$ ), and the interaction of a retailer's new channel and the product type on the consumers' perceived risk is also significant ( $F = 4.811, p = 0.029$ ) (Table 6).

As shown in Table 6, the addition of a retailer's new channels has a significantly different effect on the perceived risk of consumers. The mean value of the perceived risk of new online channels was greater than the mean value of new offline channels ( $2.8169 > 2.2863$ ). Therefore, a retailers' addition of offline channels and new online channels could both contribute to the reduction of the consumers' perceived risk, but this decline was more pronounced when new offline channels are added. Therefore, H3 is supported.

**Table 6.** The inter-subject effect of perceived risk.

Dependent Variable: Perceived Risk					
Source	Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Corrected model	41.676 <sup>a</sup>	3	13.892	14.090	0.000
Intercept	3411.214	1	3411.214	3459.736	0.000
New channel	36.673	1	36.673	37.194	0.000
Product type	0.044	1	0.044	0.044	0.833
New channel × product type	4.744	1	4.744	4.811	0.029
Error	512.707	520	0.986		
Total	3984.938	524			
Corrected total	554.383	523			

<sup>a</sup>  $R^2 = 0.021$ .

Table 7 shows that, in the case of experience products, the difference in perceived consumer risk between the newly added online channel and the newly added offline channel is significant ( $F = 34.666, p = 0.000$ ). When the product is of the search type, the difference in perceived risk of consumers between new online and offline channels by retailers is also significant ( $F = 7.563, p = 0.006$ ). These results suggest that for retailers who operate with experience products or search products, adding new offline channels is more effective to reduce the perceived risk of consumers compared to the new online channels. Therefore, H5c is supported.

**Table 7.** The univariate test for perceived risk.

Dependent Variable: Perceived Risk						
Product Type		Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Experience Products	Comparison	34.180	1	34.180	34.666	0.000
	Error	512.707	520	0.986		
Search products	Comparison	7.457	1	7.457	7.563	0.006
	Error	512.707	520	0.986		

#### 5.2.4. Purchase Intention

Considering measuring the purchase intention, this article used a multiple linear regression model to analyze whether there are significant differences in the effect of perceived variety, perceived convenience, and perceived risk on purchase intention in different contexts. The authors took consumer purchase intention as a dependent variable, and consumers' perception variety, perceived convenience, and perceived risk as independent variables. To better understand the composition of consumers and reduce the interference of external factors, the authors considered the consumer's age, gender, and education level as control variables. The multiple linear regression model is as follows:

$$PI = \alpha + \beta_1 PV + \beta_2 PC + \beta_3 PR + \gamma_1 age + \gamma_2 gender + \gamma_3 education + \epsilon$$

where the dependent variable PI represents the purchase intention of consumers; the independent variables are PV, PC, and PR, which represent the perceived variety, perceived convenience, and perceived risk of consumers, respectively; and the control variables are age, gender, and education.

The results of the multiple linear regression are presented in Table 8. Shown in both models, the coefficients of perceived variety are both positive and significant, which implies that the effect of the overall addition of new channels on consumer perceived variety has a positive effect on purchase intention. Additionally, such a positive influence is more significant when new online channels are added. Therefore, Hypothesis H4a is supported. Considering the perceived convenience, in the new offline channel case, the coefficient of the consumer's perceived convenience is positive and significant, but, it is insignificant in the new online channel model, which suggests that the effect of the overall addition of new channels on the consumer perceived convenience had a varied effect on

purchase intention. The improvement in the perceived convenience will increase purchase intention when a new offline channel is added, but it would not be true when a new online channel is created. Therefore, Hypothesis H4b is not supported. Table 8 also shows that, in both scenarios, the coefficients of perceived risk are negative and significant. Although the coefficient is more negative in the new offline channel case, the difference between these two coefficients is not significant, which means that, in both cases, the reduction in consumer perceived risk increased the purchase intention in a similar way. Therefore, there is no sufficient evidence to support Hypothesis H4c.

**Table 8.** The multiple linear regression analysis.

Variable	Hypothesis	New Offline Channel		New Online Channel	
		$\beta$	S.E.	$\beta$	S.E.
<i>Main Effect</i>					
Constant		3.964 ***	0.575	3.597 ***	0.607
PV	H4a	0.198 ***	0.040	0.324 ***	0.055
PC	H4b	0.239 ***	0.058	0.097	0.054
PR	H4c	−0.414 ***	0.069	−0.381 ***	0.063
<i>Control variables</i>					
Gender		−0.146 *	0.107	0.136 *	0.093
Age		0.121 **	0.049	0.078 **	0.041
Education		−0.007	0.088	0.125 *	0.076
$R^2$		0.423		0.484	
<i>Adjusted R<sup>2</sup></i>		0.409		0.472	

Note: S.E. = standard error; Significant parameters (\*\*\*  $p < 0.001$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ ).

## 6. Conclusions and Discussion

### 6.1. Research Conclusions

This paper analyzes the impact of two newly added retail channels on the consumer's benefits. Following a detailed analysis, the main conclusions are as follows: First, for both experience and search products, the newly added online channel can lead to a consumer's increased perceived variety toward the retailer. However, in the two independent categories of experience goods and search products, there exist differences among newly added online channels and newly added offline channels in terms of the perceived variety. Due to the physical stores' display and space limitations, the new online channels can provide more variety because online stores can display all types of goods.

Second, regarding different product categories, the addition of new online channels might lead to an increase in the perceived convenience for the consumer, as well as for retailers as a whole, in comparison with the newly added offline channels. However, in the case of experience goods, the difference between newly added online channels and newly added offline channels leads to a perceived convenience by consumers, whereas in the case of search products the difference is not significant. This gives an insight that, when the products are experience in nature, the consumers are more concerned about its tangibility and performance properties than with the search products.

Finally, the addition of new offline channels can also lead to a reduction in the overall perceived risk of consumers to retailers over new online channels. Regarding the case of experience goods, the difference between consumer-perceived risks from adding online channels and adding new offline channels is significant; whereas, in the case of search products, the difference is not significant. Retailers can add new physical stores and consumers can gain an understanding of the product through an experience in the physical store, thereby, increasing their confidence in the brand and also creating greater confidence in the online store purchase from that retailer, which is especially true for the experience products, such as clothes, perfume, and so on, which require consumers to experience before they can make accurate judgments. The anatomy of search products is quite different, however,



since search products can generally be judged by comparing their parameters with other similar products to determine their pros and cons. This facility is quite a norm nowadays in the online stores where consumers are provided with search-specific parameters and indicators. Therefore, adding a new offline store does not have a significant impact on a consumer's perceived risk.

Moreover, from the perspective of a retailer–consumer sustainable business environment the authors also conclude that sustainability in retailing is based on the sustainable measures taken by different companies, retailers, and enterprises. Specifically, retailers can address the sustainable concerns of their business models and consumer's shopping behavior by introducing more sustainable products, product selection mechanisms over different shopping channels, and implementing new business frameworks in creating more sustainable shopping opportunities for consumers. One aspect of creating the sustainable business environment is that the retailers should be driven by the image of a consumer's benefits which consumers look for during their shopping process rather than other business pressures. Moreover, retailers should adapt the sustainability concept by introducing more shopping channels to maximize the customer's reach for desired products.

No doubt, the sustainability concept has grown over the years in different business modulations. In particular, the retailers are challenged for creating sustainable business environments in-terms of addressing and shaping the consumer's preferences, at times they are cautious of introducing sustainable products, introducing sustainable business processes, or to keep the shopping motivation alive in their consumers. The sustainable business strategy, however, can overcome this caution between the retailer and consumer if the retailers are able to address the product characteristics and the perceived consumer benefits attached to them, the retail channel selection among consumers, and the product selection behavior of the consumer. Mostly, products are different as per their characteristics, for some products the consumers are not tangibly conscious but for some they do show their consciousness. As to address such issues, the retailer should plug in the right channels into their existing ones to create a sustainable business environment.

In creating a sustainable business environment, the retailers can maximize the willingness to pay among consumers, their store image would be strengthened, and the consumers will show more loyalty, which leads to the creation of more customer segments for retailers. Lastly, by creating a sustainable business environment, there would be positive economic effects for retailers and consumers which will create a more sustainable business environment. The analyzed area also underpins the channel extension mechanism in regard to certain products for creating a sustainable retailer–consumer business environment. It clarifies the desires of consumers in terms of perceived benefits, which the consumer sees while shopping over different channels. The empirical analysis in this research effort proves that the extension of existing channels to new ones has varied effects. In some cases, the increased variety of products over different shopping channels retains the customer's intention to buy from the same retailer, whereas in certain cases the convenience of buying products from different channels uplifts the behavioral intention of consumers. In business cases where variety and convenience get addressed for a sustainable business environment, at the same time, the risk of switching channels is also addressed.

The relationship between this research paradigm and sustainability is essentially to provide insights into the fickle behavior of consumers. It also suggests insights of academics and practitioners in creating the sustainable consumption mechanisms over different channels in retailing in terms of product type. Moreover, it also provides a retail understanding in driving consumers back to the same retailers, which provides a sustainable business environment to retailers.

## *6.2. Theoretical Contribution*

To the best of our knowledge, most articles on adding channels simply consider retailers adding a single channel. Based on the research of the existing literature, the main theoretical contribution of this paper is tri-fold: (1) This paper studies and compares two channel expansion strategies—adding new offline channels based on online channels, and adding new online channels based on offline channels. (2) This paper also analyzes the impact of the new channel on consumer perceptions, closing the

gap existing in the channel expansion theory. (3) This article classifies product types into experience products and search products, not only considering the comparison of consumer perceived benefits under all product types, but also examining the differences in consumer perceived benefits among different product categories.

### 6.3. Managerial Insights

The research results of this paper imply that there exist differences in consumer perceptions brought about by the addition of new online channels and new offline channels. Retailers should consider all the aforementioned aspects when selling different types of products. This study shows that the implications could be very different when retailers plan to add new retail channels to their business portfolios. The practical implications of this study are as follows.

First of all, for pure online retailers, the addition of a new physical store allows consumers to reduce their uncertainty of products and enhance their brand awareness and their trust in products. This research suggests that the key function of the offline store is to provide a better experience to consumers; whereas, for pure offline retailers, the addition of online stores can help consumers better understand the products the retailer sells, providing consumers with more choices to facilitate the screening/searching of products they need.

Second, it is more beneficial for an online retailer to set up its own physical store if selling experience products. When a retailer can establish their own offline physical store, the consumers can experience the products there; through the in-store experience, the customer can gain a better understanding of the brand, its parameters, and tangible properties, which results in an increased confidence. Regarding a purely offline retailer who offers an experience product, adding an online store allows consumers to better understand the types of products they see through online descriptions, and this mechanism effectively helps consumers browse and screen products, resulting in an increased buying convenience.

Finally, for online retailers who sell search products, newly added offline stores do not lead to a significant decrease in the consumers' perceived risk necessarily. Rather than investing in new physical stores, online retailers could try to provide better online services and make the product information more transparent, so consumers could better understand the products and enhance their perceived convenience, perceived risk, and perceived variety. Concerning offline retailers who sell search products, the addition of an online store will not enhance the consumers' perceived convenience greatly but will enable them to have a more complete understanding of the products offered by retailers.

Furthermore, according to this research, when retailers operate in online channels, they provide customers with product information on their websites. This form of information delivery is most suited to products containing few, if any, "non-digital" attributes. Conversely, when companies operate in the offline channel, customers have direct access to product information via physical stores. This type of information delivery is especially well-suited to retailing products that have significant "high-touch" elements, important service requirements, or significant non-digital attributes. Thus, the addition of an online channel is well suited to retailers when their customers either have a fair degree of certainty about what to expect or can expect only limited value from a live customer-service experience. The addition of offline stores is well suited to high-touch products, yet highly vulnerable to showrooming; this raises intriguing possibilities for hybrid experiences. Retailers should add new online and offline channels to get well-suited and crafted benefits out of their already existing business channels.

### 6.4. Research Limitations and Future Research Directions

There are mainly two limitations to this study: first, the research products selected in this paper are hand-held items, clothes, and mobile phones, which are very representative of the experience and search product categories, but this article did not analyze the general applicability of the conclusions of the study. Second, there exist subject limitations. Although the college students selected in this

paper are the main consumers of online shopping, it is difficult to confirm whether the conclusions drawn in this paper also apply to consumers of other ages.

Noting the limitations of this study, future research might select some other product category or product categories, such as hedonic and functional products, to further examine the impact of the new channel strategy on different retailers and consumers. Furthermore, in addition to the existing online and offline retail channels, more retailers have also developed sales channels for mobile phones. Research on mobile channels can provide a more comprehensive comparison between different retail channels for consumer influence mechanisms.

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## Appendix A

**Table A1.** The constructs and measurement items.

Constructs	Scales	Source
Perceived Variety	PV1: After the addition of an online/offline store, I felt there is a richer variety of products.	[28]
	PV2: After the addition of an online/offline store, I think my choice of selection has increased due to the increased variety in products.	
	PV3: After the addition of an online/offline store, there are more choices among the products for me to enjoy the shopping process.	
	PV4: After the addition of an online/offline store, there exist enough products for shopping.	
Perceived Convenience	PC1: After the addition of an online/offline store, I can choose products more easily and quickly.	[54,55]
	PC2: After the addition of an online/offline store, I can more easily find the product I want to buy.	
	PC3: After the addition of an online/offline store, I spent less time and effort when choosing products.	
Perceived Risk	PR1: After the addition of an online/offline store, I had to face more uncertainty when buying products.	[56,57]
	PR2: After the addition of an online/offline store, I was even less sure that the product I purchased would meet my expectations.	
	PR3: After the addition of an online/offline store, I was even more uncertain about the product I bought.	
	PR4: After the addition of an online/offline store, I was satisfied with all aspects.	
Purchase Intention	PI1: I will consider the retailer with new added stores first when buying products.	[58,59]
	PI2: I would prefer to buy products from the retailers in the next few years who have added new stores.	
	PI3: I am willing to share some of the advantages of A's new store afterwards.	

Table A1. Cont.

Constructs	Scales	Source
Realism Check	RC1: I think there is a retailer in the market in real life like the one explained in the scenario.	[1]
	RC2: I think the purchase scenario described in the experiment is very real.	
	RC3: I can easily imagine the real purchase scenario described in the experimental scenario.	

Note: The description of the items used varies as per the scenario and the product category used.

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