



Factors that Constitute the Reliability of Online Reviews and its Impact on Impulsive Shopping Behavior

¹*Ngo Thi Mai*

¹University of Labour and Social Affairs, Vietnam

ABSTRACT:

This study aims to establish a model to evaluate factors affecting the perceived usefulness of online reviews and the impact of online review reliability on young people's impulsive shopping behavior. At Hanoi. Research has shown the influence of key factors on perceived usefulness of online reviews and the impact of online review credibility on impulsive shopping behavior; Evaluate the influence of different factors in the model on the perceived usefulness of online reviews and the impact of online review reliability on impulsive shopping behavior of young people in Vietnam. Hanoi; Evaluate the influence of uniformity tendency on impulsive shopping behavior of young people in Hanoi.

Keywords: Reliability; Online reviews; Impulsive shopping behavior

1. Introduction

With rapid economic development in many regions of the world, including Vietnam, the retail industry is witnessing significant changes. This change is reflected in the way businesses do business as well as consumers' attitudes and shopping behavior. Today, many consumers, especially in big cities like Hanoi and Ho Chi Minh City, no longer adhere to traditional shopping habits or plan ahead to save. Instead, they have turned to impulsive shopping behavior, especially on online shopping platforms. According to the Vietnam E-Commerce White Paper 2022, up to 74.8% of internet users in Vietnam participate in online shopping. The most popular items purchased online include clothing, shoes, cosmetics (69%), consumer electronics (64%), and technology and electronics (51%). However, with the popularity of e-commerce platforms, online consumers are finding it difficult to choose products without knowing their true quality. Therefore, online customers increasingly look for reviews and comments from other customers before making purchases. They also look for similarities in lifestyle, style and personal views to make purchasing decisions.

Although the importance of online reviews has been recognized, detailed and comprehensive research and testing on the impact of online reviews on impulsive online shopping behavior is still limited. . When it comes to online shopping, recent studies mainly focus on the impact of several aspects on impulsive shopping behavior.

Additionally, with the growing popularity of online reviews, researchers have taken a more nuanced view of the characteristics of reviews and reviewers that contribute to their credibility. online reviews (Cheung et al., 2009; Chih et al., 2020; Fang & Li, 2016; Jimenez & Mendoza, 2013; Liu & Ji, 2018; Mumuni et al., 2019; Qiu et al. , 2012; Tran & Can, 2020; Yan et al., 2016). For example, Pooja and Upadhyaya (2022) systematically aggregated aspects of source, reviewer, media, and product type characteristics to evaluate the credibility of a review. However, most previous studies have not provided a general assessment of the impact chain of factors and characteristics that influence the perceived usefulness and credibility of reviews and comments. online, and thereby leading to impulsive buying behavior of consumers.

From the research results, the authors will provide important implications for Vietnamese businesses in stimulating demand through the use of trustworthy reviews to target appropriate purchasing behavior for customers. Young customers in Hanoi today.

2. Content

2.1. Research overview and Theoretical basis

2.1.1. Study overview

Around the world, the authors show that most studies confirm the influence of reviews on consumers' impulsive shopping behavior. Research by Jiménez and Mendoza (2013) suggests that the higher the reliability of reviews, the higher the purchase intention will be. In addition, Jiménez and Mendoza (2013)

also add that, for the need to compare goods with each other, consumers consider online reviews more trustworthy when they contain detailed information about the product. Products.

Besides, Chakraborty (2019) added that brand value dimensions have a mediating role in the relationship between the impact of trustworthy online review sources on purchase intention. Additionally, Chen and Ku (2021) also demonstrated how the interestingness of online reviews, reviewer reputation, and vividness of product presentation positively influence purchasing behavior. Buyers' impulsive shopping along with the regulation of market price segmentation in the relationship between product vividness and impulsive online shopping behavior. Regarding the consumer aspect, Xu et al. (2020) pointed out that self-control plays a significant role in the impulsive purchase decision process, if consumers have low self-control, then the chain of effects from the positive influence of the review to the urge to buy impulsively and ultimately to the actual purchase behavior will become stronger. Recently, Mainolfi and Vergura (2021) tested the significant impact of identification bias on the process of generating purchase intentions and willingness to share reviews in online forums. And this finding is also consistent with previous studies (Ladhari et al., 2020; Magno, 2017; Saleem & Ellahi, 2017).

To further develop the above studies, some researchers have further tested the determination of the reliability of online reviews from many different factors. For example, the credibility of online reviews is influenced by aspects of review source, product characteristics, review characteristics (consistency, style, ratings, quality), reviewer characteristics (experience, knowledge, reputation), and social media (Banerjee et al., 2017; Pooja & Upadhyaya, 2022). Along with that, Gretzel et al (2007) further revealed that review website platforms are important for many consumers when searching for product information. Similarly, Filieri (2016) shows that consumers trust reviews from independent, third-party e-commerce sites (e.g., TripAdvisor) more than reviews posted on Websites of product and service providers that consumers are looking for information about.

Researches in our country

The research titled "Influencing factors and consequences of impulsive buying behavior: Research on urban consumers in Vietnam" was published in the National Economics University Journal in 2013. Identify factors affecting the reckless shopping behavior of urban consumers in Vietnam. Research has shown that factors including shopping preferences, personal perceptions of tradition and modernity, and the impact of reckless shopping behavior during and after purchase, all affect the reckless purchasing behavior of urban consumers.

In addition, the article "Factors affecting the urge to make impulsive online purchases of consumers in Ho Chi Minh City" by authors Pham Quoc Trung and Nguyen Ngoc Hai Ha, was published in Dai Magazine City Open School. HCM, focusing on two main goals: factors affecting online impulsive shopping behavior and proposing a number of solutions to improve customers' purchasing intentions. Research results show that consumers' impulsive buying behavior is directly influenced by impulsiveness, judgment of correctness, immediate feeling, and trust. In particular, the immediate feeling depends on the visual appeal, ease of use of the website and correct assessment. At the same time, judgments of correctness are also influenced by spontaneity and visual appeal. Finally, visual appeal is influenced by the product's external factors.

In particular, the research article on the topic "Trends in online purchasing behavior of Vietnamese consumers" by author Mai Hoang Thinh, published in the Electronic Industry and Commerce magazine (2023), discovered a trend. A new trend in consumer shopping behavior today is the tendency to thoroughly research products through reading comments and reviews. Through the research process, the author found that reviews are increasingly influencing consumers' purchasing decisions, instead of the previous price factor. Currently, almost every consumer who participates in online shopping reads reviews before deciding to buy, of which 61% of customers always read reviews, and more than 30% of them read reviews regularly. And the results also show that up to 86% of online customers abandon their purchase intention when they cannot read reviews.

In general, the above studies all have their own advantages and limitations. The articles only focus on researching specific customer groups and rarely provide a comprehensive assessment of the impact of review reading trends on impulsive shopping behavior through modern quantitative methods. In addition, aspects related to online reviews and comments are still not of common interest to researchers in Vietnam. Therefore, the authors synthesized and further researched the factors affecting the reliability of online reviews and thereby evaluated the impact on impulsive shopping behavior of young people in Hanoi.

2.1.2 Theoretical basis and research model

Overview of impulse buying behavior

According to Stern (1962), impulse buying is defined as "any purchase made by the buyer without prior planning." This definition laid the foundation for many later studies on impulse buying behavior.

Subsequent researchers expanded Stern's definition by adding emotions and impulse purchases. According to Rook (1987), impulse buying occurs when consumers experience a sudden, often strong and prolonged urge to buy a product immediately. This urge to buy represents a complex state of pleasure and can create conflict in the consumer's emotions. In addition, impulse purchases often occur when consumers do not care about the consequences of their purchasing behavior.

Piron (1991) also gave a similar definition that impulsive buying is an unplanned buying behavior that occurs when a consumer is exposed to a stimulus and decides to make an immediate purchase. After an impulse purchase, consumers may experience emotional and/or cognitive reactions.

From the above definitions, some characteristics of impulsive buying behavior can be summarized as follows: (1) No prior planning; (2) Unexpected stimulation and strong urge to purchase; (3) More emotional than rational.

Overview of online reviews.

Online reviews are considered as comments about products posted by consumers on business sales pages or on another website (Mudambi and Schuff, 2010). Because consumers do not experience the product before trading on online trading platforms, their risk perception of the product is high. At that time, consumers tend to search for information to minimize this risk. In addition to product descriptions provided by the company itself, reviews from previous users are considered a reliable source of information (Gretzel, 2008).

Reliability of online reviews

Several studies (Cheung et al., 2009; Dong, 2015) define trustworthy online reviews as reviews that consumers perceive as honest, fair, and trustworthy. Previous research identifies trustworthiness as tied to consumer perceptions and reviews rather than as a direct measure of the reality of reviews (Chakraborty & Bhat, 2018). Online review credibility is described as consumers' assessment of the accuracy (Zha et al. 2015) and validity of reviews (Chakraborty & Bhat, 2017).

Perceived usefulness of the review

Based on theories of information economics, Mudambi and Schuff (2010) show that an online review is useful when consumers perceive the value of that review during the shopping process. In fact, some websites have allowed users to view "review comments" to address concerns about the quality of these reviews (Cheung et al., 2012). The usefulness score of a review reflects the value of the review (Schindler and Bickart, 2012). This score is determined by dividing the number of people who found a review helpful by the total number of people who commented on the review (Mudambi and Schuff, 2010; Sen and Lerman, 2007). Research by Chen (2013) suggests that the higher the review helpfulness score, the stronger the correlation with sales.

Theoretical models**Consumer behavior theory**

According to Kotler's theory (2001), consumer behavior can be defined as the process of synthesizing actions that occur from identifying needs to the process of purchasing and using the product. This behavior shows how individuals use available resources, including time, money, and effort, to satisfy their consumption needs.

According to the American Marketing Association, consumer behavior is the interaction between environmental stimuli and individual cognition and behavior, leading to changes in their lives. Factors that influence consumer behavior include cultural, social, personal and psychological. Therefore, to study consumer behavior, it is necessary to analyze the psychological and demographic characteristics of consumers and changes in their needs. The process of selecting and deciding to purchase a product or service is also described to better understand consumer behavior.

S-O-R (Stimulus - Organism - Response) psychological model

The S-O-R (Stimulus - Organism - Response) psychology model is a behavioral approach through specific situations that impact psychology, giving rise to behavioral responses to situations. The SOR model (Mehrabian & Russell, 1974) focuses on exploiting the relationship between external influences on the subject and forming a response. According to Mehrabian and Russell (1974), the S-O-R model follows a positive approach that includes actions such as the desire to discover, remember and interact with the brand. The typical negative approach is to avoid all elements of the situation. Islam and Rahman (2017); Moon et al (2018) applied this model to demonstrate that cognitions and emotions will shape users' behavioral responses.

Theory of Reasoned Action (TRA - Theory of Reasoned Action)

The Theory of Reasoned Behavior (TRA) is a theoretical framework in social psychology used to explain and predict human behavior, especially regarding the intention to engage in a particular behavior. This theory was developed in the late 1960s by Martin Fishbein and Icek Ajzen. According to TRA, an individual's behavioral intentions are determined by their attitudes and social factors.

TRA believes that both attitudes and social factors play an important role in determining individuals' behavioral intentions. Behavioral intention, in this case, is considered the immediate prediction of actual behavior. According to TRA, stronger intentions increase the likelihood of performing that behavior.

The TRA model and other versions based on it are quite popular models used by many researchers to evaluate customers' intention to use products or services. The TRA model is also the origin of later customer behavior assessment models such as the Planned Behavior Model - TPB (Ajzen, 1985), Technology Acceptance Model - TAM (Davis, 1989; Davis et al. events, 1993).

Unified theory of use and acceptance of technology (UTAUT)

The UTAUT theoretical model states that actual intention to use technology is an important factor in determining technology adoption. The likelihood of using technology depends on four key constructs, including performance expectations, effort expectations, social impact, and facilitating conditions. The effectiveness of these factors is predicted based on age, gender, experience and willingness to use (Venkatesh et al., 2003).

Performance expectancy is defined as an individual's level of belief that using a technology system or service will help increase their work efficiency and maintain their benefits (Venkatesh et al., 2003).

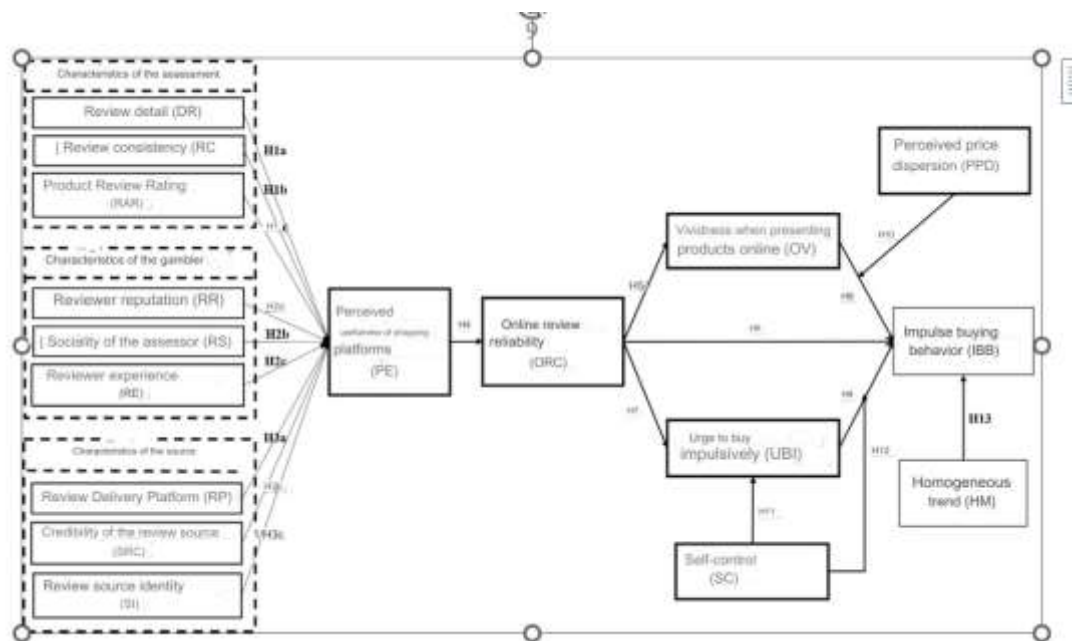
Effort expectancy refers to the ease of accessing and using technology systems and services (Venkatesh & al., 2003), integrated from three other similar factors such as ease of use, perceived (TAM), complexity (MPCU) and current ease of use (IDT). Effort expectancy is significant in both the voluntary and mandatory contexts of early use.

Social influence is defined as "the degree to which an individual perceives that significant others believe they should use the new system" (Venkatesh et al., 2003). The impact of social influence is significant when technology use becomes mandatory (Venkatesh et al., 2003). In mandatory contexts, individuals may use technology because of compliance requirements rather than personal preference (Venkatesh & Davis, 2000). This may explain the inconsistent effect the constructs have shown across subsequent studies and confirmed by modeling (Zhou, Lu & Wang, 2010; Chauhan & Jaiswal, 2016).

Favorable conditions are the degree to which an individual believes that physical, technical, and service support will help them better use a technology system or service (Venkatesh et al., 2003)

UTAUT demonstrated that the proposed factors explain 70% of the variance in usage intention (Venkatesh et al., 2003), showing stronger predictive ability than other models in evaluating technology acceptance (e.g., Davis, 1993; Sheppard, Hartwick, & Warshaw, 1988). The interaction effects of several constructs with personal and demographic factors point to the complexity of the technology acceptance process, which depends on each individual's age, gender, and experience. individuals (Venkatesh et al., 2003).

2.2.2 Research model and hypotheses



Description of hypotheses

From reputable reference sources, the team has come up with definitions for the following scales:

a. Review characteristics

Several review characteristics were found to influence review credibility on online review platforms as well as the perceived usefulness of reviews on shopping platforms. Many studies show that a product with many positive reviews will bring higher sales and improve product popularity (Flanagin & Metzger, 2013; Hong & Pittman, 2020; Reyes-Menendez et al. event, 2019).

- Details of the review (DR - Detail review)

The detail of a review is the level of specificity, clarity and detail in the way it describes, evaluates and makes comments about the object being evaluated. It has been proven that long reviews often contain more information and details, while short reviews often lack depth and an overall overview of the product's features. Research by Johnson and Payne (1985) also showed that reading detailed reviews helps consumers save time and effort in searching for information, thereby supporting the decision-making process. Reduce product uncertainty through complete information. Current studies also find that online reviews that provide positive and detailed information about a product are often more trustworthy and convincing than online reviews that provide only positive information. Extreme but vague. Therefore, online product reviews that provide specific information about product features or stories about product usage experiences are more trustworthy and convincing than general reviews. general lack of clarity (e.g. "great product", "excellent", "best").

H1a: Review detail has a positive influence on perceived usefulness of reviews on shopping platforms

- Consistency of review (RC - Consistency Review)

If a reviewer agrees with most of the online reviews or recommendations of others, those reviews are considered consistent (Chakraborty & Bhat, 2017, 2018b; Chakraborty, 2019). Consistent online reviews are found to be more trustworthy (Abedin et al., 2021; Baharuddin & Yaacob, 2020; Brand & Reith, 2022; Chakraborty & Bhat, 2017, 2018; Chakraborty, 2019; Cheung et al. al., 2009, 2012; Luo et al., 2014; Tran & Can, 2020). Fang and Li (2016) found that information recipients actively monitor information consistency while perceiving the credibility of the assessment.

H1b: Review consistency has a positive influence on perceived usefulness of reviews on shopping platforms

- Rating review (RAR - Rating review)

Mudambi and Schuff (2010) conducted a study that found that consumers often search for reviews rated with extremely high or extremely low scores. This is because they hope that these reviews contain strong satisfaction or dissatisfaction from the reviewers. Other studies such as Hu et al. (2008) as well as Lee et al. (2013) also show that ratings in product reviews play an important role for consumers in the decision-making process. intend to purchase. Therefore, consumers often rely on the ratings of reviews to evaluate their usefulness and thereby make smart purchasing decisions for themselves. This leads to the following hypothesis:

H1c: Product review ratings have a positive influence on perceived usefulness of reviews on shopping platforms.

a. Reviewer characteristics

Reviewer characteristics impact the reliability of the review as well as the perception of the review's usefulness through 3 main aspects: Reviewer reputation, reviewer sociability and evaluator experience.

- Reviewer reputation (RR - Reviewer reputation)

A reviewer's reputation is the degree to which a reviewer is recognized and appreciated by others. A reviewer's reputation can also be influenced by their credibility, expertise, and importance in the field in which they operate. Liu and Park (2015) found that reviewer reputation influences the perceived value of a review. Consumers can infer a reviewer's credibility directly from his reputation as suggested by the website or other members of the community. A quantifiable measure of reputation could be the total number of years a reviewer has been certified as "Elite." It is reasonable to expect that the greater the reviewer's reputation, the more trust the reviewer receives. Therefore, we propose the following hypothesis:

H2a: Reviewer reputation has a positive influence on the perceived usefulness of reviews on shopping platforms.

- Reviewer sociability (RS - Reviewer sociability)

An assessor's sociability is a set of characteristics, behaviors, and skills related to the ability to interact and communicate with others in a social environment. Social characteristics of evaluators include openness, friendliness, communication skills, and cooperativeness. According to McCroskey and colleagues (1974), sociability is one of the important aspects of source credibility. One of the important values of sociability is friendliness. In the context of social networks, friendliness can be measured by the number of friends a person has in the community. This therefore means that the number of friends a reviewer has in the community will positively influence the usefulness of reviews on the shopping platform. Liu and Park (2015) used the number of friends as one of the variables and examined its impact on the usefulness of reviews. Therefore, the following hypothesis is proposed:

H2b: Reviewer sociability has a positive influence on the perceived usefulness of reviews on shopping platforms.

- Reviewer experience (RE - Reviewer experience)

Evaluator experience is all the competencies, experience, skills and understanding accumulated during the evaluation process. It includes understanding of the field being assessed, skill in using assessment tools and methods, the ability to provide accurate assessment and constructive feedback, and plays an important role in accuracy and the effectiveness of the evaluation process. The expert aspect of source credibility refers to the experience of an evaluator. Therefore, one of the important aspects of the evaluator's characteristics is experience in the field under review. People with more experience in a field are often trusted more than people who are inexperienced in matters related to that field. In the context of online reviews, experience would refer to the length of time the reviewer has been a member of the online review community. Typically, shoppers often expect reviews from reviewers with many years of experience on the shopping platforms that shoppers use, they will be more trusted and have more followers. more followers in the community than new people. Therefore, this leads to the following hypothesis:

H2c: Reviewer experience has a positive influence on the perceived usefulness of reviews on shopping platforms.

a. Sources characteristics

In the study, the characteristics of the review source affect the credibility of a review as well as the perception of the review's usefulness through 3 characteristics: the platform providing the review, the the review source's credibility and the review source's identity

- Review platform (RP - Review platform)

Review platforms play an important role in creating a positive online shopping environment, where users can rely on reviews from previous customers to make purchasing decisions. accurate and correct. Previous research shows that consumers perceive product information differently across different platforms (Bei et al., 2004). Platforms that provide positive reviews influence users' perception of the usefulness of reviews on shopping platforms through

the review's honesty, objectivity, and trustworthiness, complete information news, diverse backgrounds, interactive features and user feedback. This enables users to make confident purchasing decisions and be satisfied with their online shopping experience. Therefore, the authors hypothesize:

H3a: Review delivery platform has a positive influence on the perceived usefulness of reviews on shopping platforms.

b. Source credibility (SRC)

Review source credibility refers to the extent to which the review source is viewed as trustworthy, worthy, and trustworthy in providing review information. This is related to the reputation, professionalism, experience, knowledge, independence and objectivity of the review source. Users often evaluate the credibility of review sources based on these factors to determine the reliability and value of review information for purchasing decisions or product/service reviews. Cheung and Thadani (2012) define source credibility as "the message source's motivation to provide accurate and truthful information (reliability)." If the review source is considered trustworthy, reputable, and independent, users will appreciate the value of that source. The review source's experience and knowledge are also important in evaluating the review's usefulness. The credibility of the review source also helps users determine the credibility of the information in the review, creating trust in the reliability of the review and the shopping platform. Therefore, an information source Authentic, objective information will be a great basis for customers' initial thoughts and feelings. The more reputable a source is, the more trust customers will feel and the reviews on that source will become more useful. According to the above analysis, the study hypothesizes:

H3b: The credibility of the review source has a positive influence on the perceived usefulness of reviews on shopping platforms

a. Source identity of the review (SI)

Review source identity is information about the person or organization posting or writing a review of a product or service on a shopping platform or review website. Therefore, when consumers are provided with evidence for the existence of information about the review source, they will be more likely to be attracted to reviews on that shopping platform. Also according to Kusumasondjaja et al (2012), reviews written by sources with verified identities have higher credibility than reviews written by unknown sources. Based on the above analysis, the study proposes the following hypothesis:

H3c: Product-related review source identity has a positive influence on perceived usefulness of a shopping platform

b. Perceived usefulness of online reviews on shopping platforms (PE - Perceived usefulness)

Perceived usefulness of online reviews in the context of shopping platforms refers to the extent to which consumers perceive their shopping process to be more efficient when reading reviews on platforms Online Shopping. Holbrook and Batra (1987) proposed that perceptions are responsible for determining human affect and behavior. In the context of online shopping platforms, Parboteeah and colleagues (2009) suggested that perceived usefulness of online reviews positively influences cognitive process interestingness. Therefore, when consumers appreciate the content of online reviews on various shopping platforms, this builds consumer trust in online reviews on those platforms, from That creates an opportunity for impulsive shopping. Previous studies have provided evidence of the positive impact of perceived usefulness of online reviews in shopping platforms on the trustworthiness of these reviews. Based on these studies, we hypothesize the following:

H4: Perceived usefulness of reviews on shopping platforms has a positive influence on the trustworthiness of online reviews

Review source identity is information about the person or organization posting or writing a review of a product or service on a shopping platform or review website. Therefore, when consumers are provided with evidence for the existence of information about the review source, they will be more likely to be attracted to reviews on that shopping platform. Also according to Kusumasondjaja et al (2012), reviews written by sources with verified identities have higher credibility than reviews written by unknown sources. Based on the above analysis, the study proposes the following hypothesis:

H3c: Product-related review source identity has a positive influence on perceived usefulness of a shopping platform

a. Perceived usefulness of online reviews on shopping platforms (PE - Perceived usefulness)

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H4: Perceived usefulness of reviews on shopping platforms has a positive influence on the trustworthiness of online reviews

b. Online credible review (ORC - Online credible review)

Several studies (Cheung et al., 2009; Dong, 2015) define trustworthy online reviews as those that consumers perceive as genuine, reasonable, and trustworthy. Previous research suggests that trustworthiness is closely related to consumer perceptions and reviews, not a direct measure of the reality of those reviews (Chakraborty & Bhat, 2018). Online review credibility is described as an assessment of the accuracy (Zha et al., 2015) and validity of reviews (Chakraborty & Bhat, 2017).

In addition, when credibility is high, consumers will be more interested in reviews with vivid content than reviews that are general or have only a few sentences. Reality shows that when users search for their favorite products on the internet, reviews will create trust for them. That's why product presentations on online review sites are always diverse and vivid, attracting viewers, effectively stimulating and stimulating buyers' senses, and helping them understand clearly. more about the product. Therefore, we hypothesize the following:

H5: The credibility of online reviews has a positive influence on the vividness of online product presentation.

Based on the current situation, when buyers intend to make a purchase, they will often consider reviews before making a decision. This means that reviews will attract more readers' attention if they demonstrate a level of trust in the perceived usefulness of the review, its characteristics, the reviewer, and the source. Evaluate. A trustworthy review will increase the likelihood of consumer purchasing behavior, in which they will be attracted by product details, benefits, flaws and fixes. presented in online reviews. Based on the above arguments, we hypothesize the following:

H6: The credibility of online reviews has a positive influence on impulsive shopping behavior.

When it comes to consumers' search activity in finding information on shopping websites, either seller-produced content or online reviews from consumers, without specific shopping intent can. Floh and Madlberger (2013), also stated that consumer search contributes to motivating purchases and this leads to the second hypothesis, which states that online trust reviews have a significant influence on purchasing behavior. Random shopping.

H7: The credibility of online reviews has a positive influence on the impulse to buy impulsively.

a. Online vividness of products (OV - Online vividness of products)

The vividness of online product presentation refers to the clarity and strength of product information presented online, attracting consumers' attention, stimulating their imagination about the product. products (Zhang et al., 2018a) and positively influence their online shopping experience (Changchit & Klaus, 2020; Kuan et al., 2015). A dynamic presentation of a product online provides consumers with diverse, informative clues about the product and stimulates more sensory channels than a simple textual product description. can provide. Previous research has shown that online reviews that provide vivid images stimulate multiple sensory channels of buyers (Estrella-Ramon & Ellis-Chadwick, 2017; Vázquez, 2019; Yim et al., 2017). The more vividly a product is presented online, the more clearly consumers can absorb the information, which is helpful in meeting buyer needs. When consumers search for their favorite products on the Internet, compelling reviews attract their attention. Presenting products vividly will be helpful for consumers when making purchasing decisions. This leads to the hypothesis:

H8: The vividness of online product presentation has a positive influence on impulse buying behavior

b. Urge to Buy Impulsively (UBI)

Beatty and Ferrell (1998) defined the phenomenon of impulse buying as "a state of desire experienced when encountering an object in the environment." Rook (1987) showed that impulsive buying behavior actually occurs after experiencing the urge to buy. In our model, impulse buying refers to a consumer's sudden and spontaneous desire to buy after reading product reviews and sales information. While actual impulse buying behavior represents the actual action of consumers purchasing products to satisfy their needs. The urge to buy impulsively can be very strong and irresistible, however, the urge to buy impulsively does not necessarily lead to actual shopping behavior (Rook & Fisher, 1995). In general, consumers often feel compelled to make impulse purchases rather than actually carry out their impulse purchases. Verhagen and van Dolen (2011) demonstrated a positive and significant relationship between impulse shopping and actual shopping behavior. Consistent with previous research, we find a distinction between these two concepts and suggest a positive relationship between them (Beatty & Ferrell, 1998). Based on these, we hypothesize the following:

H9: The urge to buy impulsively has a positive influence on impulse buying behavior

c. Perceived price dispersion (PPD)

Buyers in O2O markets choose alternative products with similar characteristics, and sellers also observe and compare pricing strategies with competitors to attract potential buyers. One of the main causes of price dispersion is that consumers face uneven and uncertain market information; Online product research requires buyers to pay higher transaction costs (Gorodnicenko et al., 2018). However, because buyers now easily access comparable price information through online reviews from similar websites, understanding the impact of price information on consumers' online shopping decisions becoming increasingly important for businesses. Previous studies have shown that as the number of pure online retailers increases, online price competition also increases, leading to an increase in the number of pure online retailers (Kocas et al. , 2018). Furthermore, previous research has shown that changes in online user ratings across product categories and markets influence price volatility by product category and market category, including absolute prices. and relative metrics (Viejo-Fernandez et al., 2020). This leads to the hypothesis:

H10: Perceived price dispersion plays a role in promoting the relationship between profitability

a. Homophily (HM)

The tendency to identify or resemble each other can be expressed as homophily, which describes the situation when the communicator and receiver have similar characteristics. Similarities in values, interests, and lifestyles between individuals help reduce consumers' search for information from external sources, reducing uncertainty about multiple information (Chu & Kim, 2011).

With the growth of social media and social environments such as social commerce, blogging, and the social services space, interest in marketing through collateral is growing. Previous studies have demonstrated that consumers trust information created by consumers more than information created by companies (Dellarocas, 2003). With an increasing number of consumers reading review sites for inspiration, reviewers can be seen as convincing consumers through their credibility and chasing consensus trends. However, little attention has been given to the relationship between identity bias and consumers' purchase intentions when reading reviews (Tropp et al., 2015). Therefore, a hypothesis is proposed that:

H13: Uniformity bias positively affects impulsive shopping behavior

2.2. Research Methods

Desk research: the authors collected data and information from available sources such as books, newspapers, magazines, specialized reports and the Internet.

Basic theoretical research: the authors have collected data and information from available sources such as books, newspapers, magazines, specialized reports and the Internet.

To evaluate the impact of the factors in the model: The authors used the survey method to collect opinions on the level of impact of the factors on the perceived usefulness of the review. Online prices and the impact of online review reliability on impulsive shopping behavior of young people in Hanoi. Survey subjects included students from 6 high schools and universities, as well as working people from 4 large companies in Hanoi.

For the survey: in order to evaluate the quality of the questionnaire, the authors distributed 30 test questionnaires. After editing and completing the content of the questionnaire, the authors distributed 500 official survey forms and received 368 response forms that met the requirements.

Estimation technique: linear structural analysis model (SEM) is used to test the proposed hypotheses.

2.3. Research results and discussion

Descriptive statistical results by gender, age, income, occupation, and education level

The total number of ballots distributed is 500. 488 ballots were collected, of which 12 were defective, of poor quality or lacking information so were discarded. Finally, 368 votes were obtained to ensure quality requirements. The survey looked at segmenting respondents by gender, age, education and income. Among the 368 valid questionnaires collected, some missing personal information was processed and simulated (missing rate 0.3%). Survival statistics results with 368 valid votes. According to the survey results, most of the customers participating in the survey were university students. There were 204 respondents, aged 18-25 years old, accounting for 48.6% of the total number of customers. Of which, customers from 26 to 35 years old accounted for more than 29% with 108 survey participants, and customers under 18 years old accounted for a low percentage of about 21.9%. By gender, the proportion of female customers is higher than that of male customers, 57.8% and 42.2% respectively. When customers were classified by education level, 46.6% of the 172 respondents had a university degree, making up the majority. Only about 1/5 of the respondents belong to the group with a university degree.

Analyzing Cronbach's Alpha coefficient - Testing scale reliability

The results of analyzing the reliability of the scale show that, for each scale, Cronbach's Alpha coefficients all exceed the threshold of 0.6, proving their reliability. The Perceived Usefulness scale has the highest Cronbach's Alpha coefficient of 0.902, while Review Consistency has the lowest Cronbach's Alpha coefficient of 0.721. This shows that the scales used in the analysis have acceptable reliability. The results show that all variables have a correlation greater than 0.3, meeting the requirement for uniform variable correlation.

To evaluate the appropriateness of the scales, confirmatory factor analysis (CFA) was performed in a model. The goal is to evaluate the convergence, compatibility of the theoretical model with real data, and discrimination between factors. CFA results based on the factor loading threshold > 0.5 show that all observed variables meet the requirements. CFA results show: $\chi^2/df = 1.439 (< 3)$; CFI = 0.924 (> 0.8); PCLOSE = 1 (> 0.05); RMSEA = 0.035 (< 0.08). These evaluation indices all exceed the acceptance threshold, showing that the theoretical model fits well with real data. Based on these results, the authors confirm that the model achieves convergence.

EFA exploratory factor analysis

The results of factor analysis (EFA) are presented in detail. Based on this result, the Sig value (in the Bartlett test) is 0.000, less than the significance threshold of 0.05, showing a correlation between the variables. observed in the sample. This proves that the necessary conditions for performing factor analysis are met. The KMO (Keiser-Meyer-Olkin) index is 0.825, surpassing the minimum threshold of 0.5, showing that the conditions for performing factor analysis are appropriate.

The factor analysis results showed that a total of 17 factors were extracted with Eigenvalues of 1.026, and the total variance extracted reached 58.029%, surpassing the threshold of 50%. This shows that the 17 groups of variables used explain 58.029% of the variation in observed variables.

Results of the analysis of the standardized model

Confirmatory factor analysis (CFA) to evaluate factors and based on a standardized model to evaluate convergent validity, compatibility of the research model with actual data and discriminant validity between factors. element. Through the process of analyzing and reviewing the standardized model, the evaluation results show: Chi-square/df = 1,439 < 3; CFI = 0.924 > 0.9; GFI = 0.843; RMSEA = 0.035 < 0.08; PCLOSE = 1,000 (Figure 4.7). The model is compatible with survey data, meeting the requirements with the model's indicators even though all indicators are not the best. Therefore, the above theoretical model is compatible with the actual data obtained, and at the same time confirms that the model achieves convergence.

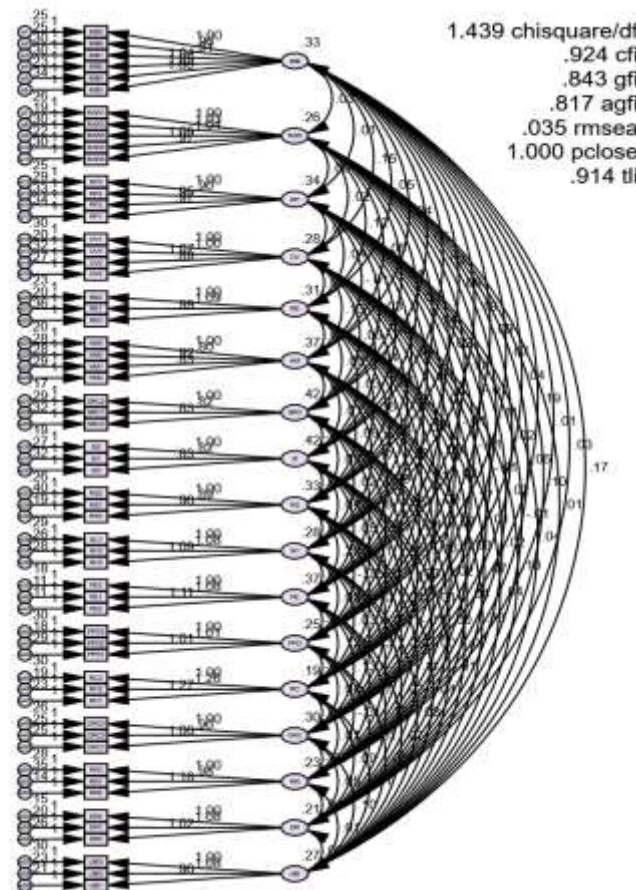


Figure 4.7: Results of standardized model analysis

Source: Official data analysis results with the support of AMOS software

Results of testing the reliability and convergence of the scale

Analysis results confirm that all observed variables have factor loadings greater than 0.5 (the smallest value is 0.502), and the composite reliability (CR) of the factors is also greater than 0.5 (minimum value is 0.758), meets the requirements. To calculate composite reliability (CR) and variance extracted (AVE), we use the factor loadings of observed variables. This shows that the scales in the model, when applied to the official sample, achieve the necessary reliability and convergence.

Results of linear structural model (SEM) analysis

Analysis using a linear structural model was used to evaluate the impact between factors in the relationships proposed in the research model and simultaneously test the reliability and stability of the model. estimate. After adjusting for some possible relationships between the errors of observed variables in the factors, the results are as follows: Chisquare/df = 1.74 < 3; CFI = 0.862 > 0.8; GFI = 0.796 < 0.8; RMSEA = 0.045 < 0.06; PCLOSE = 0.999 > 0.05. It can be concluded that the model fits the data from the survey even though not all model indicators are optimal.

Factor Perceived usefulness of shopping platforms (PE): Perceived usefulness of shopping platforms is influenced by 9 factors: Details of reviews (DR); Review consistency (RC); Product Review Rating (RAR); Assessor sociability (RS); Reviewer experience (RE); Review Delivery Platform (RP); Review source credibility (SRC). The results show that at the 5% significance level, the detail of the review; Consistency of reviews; Rate product reviews; Evaluator sociability; Reviewer's experience; The platform provides reviews; The credibility of the review source has a positive impact on the perceived usefulness of shopping platforms with p-values all less than 0.01. In particular, reviewer experience has a greater impact with a standardized Beta coefficient of $\beta_{re} = 0.301$, product review rating with a standardized Beta coefficient of $\beta_{rar} = 0.256$ and the detail of the review has The standardized Beta coefficient is $\beta_{dr} = 0.25$. Besides, Reviewer Reputation (RR); Review source identity (SI) also has a positive influence at the 5% statistical significance level on the perceived usefulness of shopping platforms with a p-value of less than 0.05 for the review system. Beta numbers are 0.117 and 0.136 respectively. Thus, accept hypotheses H1a, H1b, H1c, H2a, H2b, H2c, H3a, H3b, H3c.

Impulsive Shopping Behavior (IBB) Factor: Impulsive Shopping Behavior factor is considered to be positively influenced by 4 factors: Uniformity tendency, Reliability of online reviews, Vividness when presenting products online, The urge to buy impulsively. In particular, Uniform trend has a standardized Beta coefficient $\beta_{hm} = 0.51$; The reliability of online reviews has a standardized Beta coefficient $\beta_{rc} = 0.29$; Liveliness of online product

presentation has a standardized Beta coefficient $\beta_{ov} = 0.157$ and Impulsivity to buy has a standardized Beta coefficient $\beta_{ubi} = 0.274$. All four factors above have a positive impact on impulsive shopping behavior at the 5% significance level. Thus, hypotheses H6, H8, H9, H13 are accepted.

Factor Reliability of online reviews (ORC): The factor Reliability of online reviews is considered to be positively influenced by the factor Perceived usefulness of shopping platforms. At the 5% significance level, perceived usefulness of shopping platforms affects the trustworthiness of online reviews with a p-value less than 0.01. Thus, hypothesis H4 is accepted.

Factor Vividness when presenting products online (OV): Factor Vividness when presenting products online is considered to be positively influenced by the factor Credibility of online reviews. At the 5% significance level, the vividness when presenting products online affects the vividness when presenting products online with a p-value of less than 0.01 with Beta coefficient $\beta=0.588$. Thus, hypothesis H5 is accepted.

The Urge to Buy Impulsively Factor (UBI): The Urge to Buy Impulsively factor is considered to be influenced by two factors: Reliability of online reviews and Self-control ability control yourself. In particular, both factors have p-value less than 0.01, so they affect the urge to buy impulsively with a significance level of 5%. Thus, hypotheses H7 and H11 are accepted.

The factor Perceived Price Dispersion (PPD) positively moderates the relationship between Vividness when presenting products online and Impulsive Shopping Behavior. At the 5% significance level, the perception of price dispersion moderates the relationship between the vividness of online product presentation and impulsive shopping behavior with a p-value of less than 10%. Thus, hypothesis H10 is accepted.

The factor Self-control (SC) positively moderates the relationship between Impulsive Buying Urge and Impulsive Shopping Behavior. At the 5% significance level, self-control moderates the relationship between impulsive buying urges and impulsive shopping behavior with a p-value less than 1%. Thus, hypothesis H12 is accepted.

Table 4.6: Regression coefficients of relationships

Relationship route			Normalized beta	SE	CR	P-value	Conclusion about the hypothesis
DR	→	PE	0,25	0,059	4,498	***	Accept
RC	→	PE	0,214	0,067	3,804	***	Accept
RAR	→	PE	0,256	0,054	4,754	***	Accept
RR	→	PE	0,117	0,057	2,185	**	Accept
RS	→	PE	0,222	0,048	4,017	***	Accept
RE	→	PE	0,301	0,051	5,335	***	Accept
RP	→	PE	0,167	0,047	3,126	***	Accept
SRC	→	PE	0,19	0,043	3,549	***	Accept
SI	→	PE	0,136	0,041	2,57	**	Accept
PE	→	ORC	0,339	0,066	5,271	***	Accept
ORC	→	OV	0,588	0,075	7,712	***	Accept
ORC	→	UBI	0,309	0,066	4,416	***	Accept
SC	→	UBI	0,203	0,062	3,014	***	Accept
HM	→	IBB	0,51	0,048	8,734	***	Accept
ORC	→	IBB	0,29	0,072	3,867	***	Accept
UBI	→	IBB	0,274	0,059	4,726	***	Accept
OV	→	IBB	0,157	0,066	2,31	**	Accept
OV xPPD	→	IBB	0,074	0,02	1,717	*	Accept
UBI x SC	→	IBB	0,119	0,018	2,73	***	Accept

Notes: DR: Review detail; RC: Review consistency; RAR: Product review rating; RR: Reviewer reputation; RS: Assessor sociability; RE: Reviewer experience; RP: Review delivery platform; SRC: Credibility of the review source; SI: Source identity of the review; ORC: Reliability of online reviews; PE: Perceived usefulness of shopping platforms; OV: Vividness when presenting products online; PPD: Perception of price dispersion; UBI: Urge to buy impulsively; SC: The ability to control oneself; IBB: Impulsive shopping behavior; HM: Homogeneous trend.

Conclude

The research was conducted towards the following objectives: (1) Testing the influence of review reliability on impulsive shopping behavior of young people in Hanoi through the regulation of price dispersion and self-control ability based on creating theoretical and empirical models of linear structural models, (2) Researching the impact of factors synthesized in 3 main aspects on usefulness of online reviews on today's popular shopping platforms. The specific research results are as follows:

Firstly, through a review of domestic and foreign documents as well as applying a number of theories on shopping behavior, the article has built a model of factors affecting consumers' impulsive shopping behavior. children revolve around 16 aspects, including: characteristics of the review (detail, consistency, and rating of reviews), characteristics of the reviewer (reputation, sociability, and experience), characteristics of the reviewer (reputation, sociability, and experience). source score (platform providing review, credibility, and source identity), review usefulness, review credibility, vividness of online product presentation, impulse to buy impulsively, self-control, perceived price dispersion, and uniformity bias. Besides, demographic factors (specifically: gender, age, income, occupation, education level) and factors on frequency of using online shopping platforms (specifically, are: access time to the Internet, access time to shopping platform, frequently visited platform, number of review posts, number of purchases, frequency of impulse purchases) are also considered.

Second, the research results confirm that there are 9 factors affecting young people's perception of the usefulness of reviews, including: Characteristics of the review [detail ($\beta=0.25$), consistency ($\beta=0.21$), ratings ($\beta=0.26$)], Reviewer characteristics [reputation ($\beta=0.12$), sociability ($\beta=0.22$), experience ($\beta=0.30$)], Source characteristics [review posting platform ($\beta=0.17$), credibility ($\beta=0.19$), source identity ($\beta=0.14$)] has a positive influence on the perceived usefulness of shopping platforms. It can be seen that the factor with the greatest influence is "Reviewer's experience" and the factor with the lowest influence is "Reputation of the review".

Third, the study points out two moderating factors between the impact relationship of vividness in product presentation and impulse purchase on impulsive shopping behavior of young people, which are: (1) Perception of price dispersion and (2) Self-control ability both positively moderate the above relationship.

Fourth, the study provides a number of recommendations to help organizations and businesses promote impulsive shopping behavior of Hanoi youth through reviews as well as the organization's platform.

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