



Factors Affects Clothing Buying Intention in Online to Offline Model (O2O)

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ABSTRACT

The purpose of this research is to examine the effects of 5 factors on buying intention of clothing in the online-to-offline (O2O) model. This model offers an innovative form for businesses to search and attract customers via online channels then drive them to brick-and-mortar stores for purchases. For this purpose, a conceptual model was developed based on the integration of the Engel Blackwell Miniard (EBM) and the Theory of Planned Behaviors (TPB). The five factors under investigation includes Online advertising, Electronic word-of-mouth (eWOM), Attitude, Subjective norms and Perceived behavioral control. An online survey was conducted and the data were analyzed using Exploratory Factor Analysis (EFA) and Multiple Regression model. The results reveal that Attitude (standardized coefficients 0.461), Subjective norms (standardized coefficients 0.212) and Perceived behavioral control (standardized coefficients 0.192), respectively, have the most significant effects while Online advertising and eWOM have no major impacts on O2O buying intention. Based on such findings, a number of recommendations for the government, businesses and customers while adopting the O2O model are offered.

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I. INTRODUCTION

Along with the development of the Internet, online shopping has become more and more popular to consumers. Most of them use the Internet to conduct intensive online research about a product before making a purchase decision. However, is it really effective for consumers to shop online and is it an appropriate strategy for businesses to only focus on this form of e-commerce?

In recent years, the O2O model has been considered as the perfect solution for business operators. This model approaches and attracts potential customers on online platforms such as social networks, websites or online newspapers and navigates them to the physical stores so that they can experience and purchase products. Unlike the traditional online business model that only focuses on the online channels, the

O2O model aims to integrate online platforms with offline sales. In particular, the authors are interested in the fashion industry, namely apparel, as they are transforming their business models to O2O commerce in Vietnam.

According to a survey report of Vietnamese fashion shopping behaviors in 2017, as for apparel, consumers mostly choose physical stores as the main shopping channel and go there frequently. When asked: “Where do you buy clothes?”, most interviewees answered “offline stores” (including local stores, supermarkets, malls or official stores of their favorite brands). This shows that, despite the development of online shopping, Vietnamese consumers of apparel market still tend to come directly to the store to try the clothes on. Some reports that surveyed the shopping behaviors of “Gen Z” (people born between 1996 and present) concluded that although this age group is proficient in technology and quite likes to shop online, they still hesitate and worry when deciding to purchase clothes. Clothing is something that expresses style and personality and it is a long-term product, so they will consider it very carefully. In the context of the research paper, the authors aim to study O2O conversion motives in the apparel industry in Vietnam. Based on reports on O2O model such as “Research of O2O website-based consumer purchase decision-making model” (Min Tang & Jing Zhu, 2019), the authors have integrated the model explaining the consumer decision making (EBM), the Theory of Planned Behavior model (TPB) and O2O model to propose a new research model proposal. Specifically, the model refers to factors affecting consumers’ intention to buy clothes O2O, such as the influence of online advertising, eWOM, attitudes, subjective norms and perceived behavioral control. The results of the study provide theoretical insights into O2O. On the enterprise and business household

side, understanding the factors affecting consumers’ intention to purchase O2O can help marketers utilize these elements in their conversion activities.

II. THEORETICAL BASIS AND RESEARCH METHODS

Online-to-Offline Commerce Service Framework (O2O)

One of the first definitions of an online to offline behavioral transformation model was finding customers on an online platform and persuading them to come to the physical store (*Rampell*, 2011). Later, the definition of O2O was expanded as reported by the group P.-C., & Wang, W.-N. (2013) or the definition of O2O by *Phang et al* (2014) to emphasize the transition between online to offline (and vice versa).

The operating mechanism of the O2O model specifies the factors involved and the activities of this model.

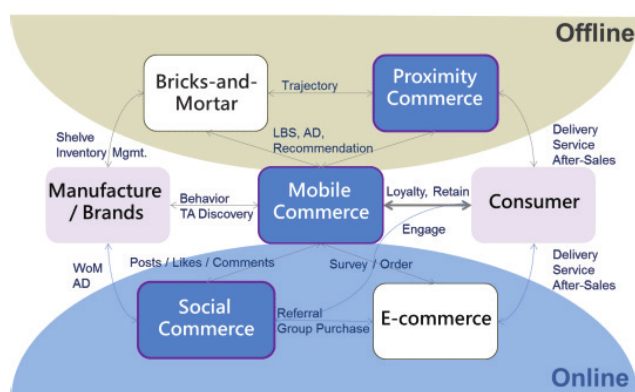


Figure 1: O2O Commercial Service model (Tsai et al, 2013)

Consumer decision-making (EBM) model

Based on the theory of the EBM model, the authors point out 3 factors that affect the O2O purchasing process, including: The process of analyzing input information such as online advertising and eWOM, the influence of consumer attitudes and norms in the

society. Therefore, we suggested hypotheses to test the effect of these three factors on the intention to purchase O2O. However, in order to have a more profound and multidimensional theory, we chose to use it in the combination with the Theory of Planned Behavior (TPB) model to evaluate the relationship between variables including attitude, subjective standards and perceived behavioral control and the purchasing intention in the O2O model.

The Theory of Planned Behavior model (TPB)

The TPB model is shown to indicate a causal relationship between factors such as attitudes, subjective standards, perceived behavioral control and the consumers' behaviors and intention. At the same time, the authors claim that other factors including demographics and environment are active in the model structure and do not independently influence the interpretation of the ability to perform a behavior. (Montaño, 2016)

Online advertising and O2O purchase intentions

According to the *Vietnamese Social Media and Online Ads* report, when the participants were asked "Have you ever clicked on any Facebook ads in 7 days?" and "Have you ever made a purchase after seeing an advertisement in the past 3 months?", the rate of clicking on ads and buying goods after seeing them increased slightly during the period of 3 years (from 2016 to 2019). Specifically, the percentage of clicking on online ads increased from 57% to 64% and the rate of purchase after seeing ads increased from 41% to 49% (Q & Me, 2019). The consumers' decision-making process basically starts with problem recognition, then information search, alternative evaluation, purchase decision and post-purchase behavior (Kotler, 2008). With online communication, when customers see advertisements as well as online sales promotion activities, these

activities will attract them and stimulate their buying demand. Before making a purchase decision, a customer will search for information to support his or her decision. When they do not have enough information, they will search through online channels such as websites or search engines (Laudon & Traver, 2009). From the collected secondary data, the authors propose the following hypothesis:

H1: Online advertising has a positive effect on purchase intentions in the O2O model

eWOM and O2O purchase intentions

Currently, there are many studies around the world showing the link between the acceptance of eWOM information and the purchase intentions. In the study of Tien, DH et al (2018), eWOM information acceptance is said to have a coordinating role in the influence of the usefulness of information and the reliable source of information on the purchase intentions. Erkan & Evan (2016) stated that: eWOM is useful for online sellers because they can turn online prompts into new orders. Social media users, whether on purpose or not, are exposed to enormous amounts of eWOM information, and previous studies have shown that this information influences the user's purchase intentions (See-To & Ho, 2014).

In the online environment, when customers cannot directly see and hold the real product and do not completely trust the images provided by the brand, reading comments from other customers will increase their faith in the product. Then they will judge if the product is worth seeing and buying in the physical store. From the aforementioned theories, the authors have hypothesized that:

H2: eWOM information has a positive effect on purchase intent in the O2O model

Consumer attitudes and O2O purchase intentions

A number of studies have integrated TAM and TPB models or clarified that the attitude variable influences the behaviors to conduct surveys in some specific fields. In the fruit and cosmetics business, for example, the authors clarify that the attitude variable affects the use of organic hair or skin care products in the TPB model of the study named "Consumer purchase intention for organic personal care products" (Kim, H., & Chung, J., 2011); "A study on consumers' attitude towards online shopping on Penang famous fruits pickles" (Fong, 2013). The TAM model is also combined with the TPB one in the study "Factors affecting adoption of electricity banking" (Lee, M.-C., 2009).

The Theory of Planned Behavior (TPB) (Ajzen, 1991) assumes that a behavior can be predicted or explained by behavioral trends to perform it. This theory is applied in many fields such as tourism, technology or service. However, the application of this theory to the O2O conversion motives is limited. One of the reports mentioning attitudes and analyzing its influence on O2O purchase behavior is the study named "Understanding the effects of physical experience and information integration on consumer use of online to offline commerce" (Yang, Y., Gong, Y., Land, LPW, & Chesney, T., 2019). Accordingly, the authors come up with the hypothesis:

H3: Consumer attitudes have a positive influence on the purchase intentions in the O2O model.

Subjective norms and O2O purchase intentions

Subjective norms are divided into peer pressure and pressure from superiors, suggesting that peers can exert pressure on the opposite side of the action, while superiors encourage the action. The grouping of friend, family member, spouse and co-worker shows that while friends often encourage an individual to act, the spouse usually does not (Taylor, Todd's, 1995) (Ho et al. 's, 2011). In general, each

way of grouping needs to show the level of impact each group has on the individual's behavior. Many studies have demonstrated the impact of subjective norms on purchase intentions for fashion or cosmetics. However, there are not many studies on this effect in relation to the O2O model, leaving a gap in research. Therefore, this study will refer to 4 reference groups: relatives, friends, acquaintances, peers and make a hypothesis:

H4: Subjective norms have a positive effect on purchase intentions in the O2O model.

Perceived behavioral control and O2O purchase intentions

Perceived behavioral control allows to predict behavior that an individual is about to perform, but cannot perform due to lack of opportunities or conditions (time, money, or skill). Many studies refer to perceived behavioral control as a factor that positively influences the purchase intentions (Ajzen, 1991; Jain et al., 2015; Teo and Pok, 2003).

Due to many similarities in consumers' decision-making either in online platforms or in traditional retail stores and the biggest difference between these two processes is the shopping environment and marketing communication (Katawetawaraks and Wang, 2011), the authors make a hypothesis:

H5: Perceived behavioral control has a positive effect on purchase intentions in the O2O model

Research models

From theories and data collected above (H1 to H5), the authors propose a research model to solve the gaps in the study of the online-to-offline conversion model.

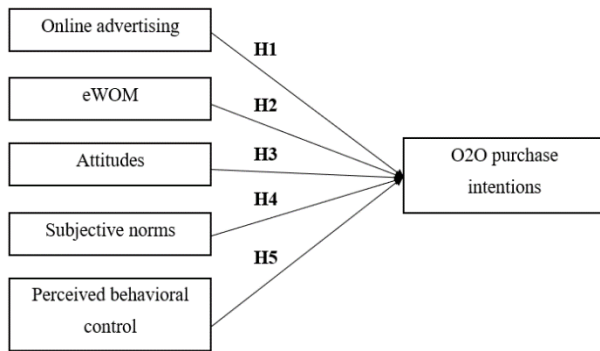


Figure 4. Research models

The hypotheses are presented in turn as follows:

H1: Online advertising has a positive effect on O2O purchase intentions

H2: eWOM has a positive effect on O2O purchase intentions

H3: Attitudes have a positive effect on O2O purchase intentions

H4: Subjective norms have a positive effect on O2O purchase intentions

H5: Perceived behavioral control has a positive effect on O2O purchase intentions

2.12. Sample description

After giving out 225 survey forms, the group collected 210 valid ones. In terms of gender, the ratio of female: male is 3.5. In terms of educational attainment, 91.4% of the participants have the highest level of education is university and the rest's level is high school. In terms of age, people are mainly 18-22 years old (accounting for 88.6%). This is one of the target customer groups of the O2O model, so the sample is highly representative. In terms of income, the numbers of people having income of “under 3 million VND”, “3-5 million VND”, “6-10 million VND” and “more than 10 million VND” were 97, 64, 29 and 16 respectively. 4 samples chose “Other”. The corresponding rates were 46.2%, 30.5%, 13.8%, 7.6% and 1.9%, respectively.

III. RESULTS AND DISCUSSION

Demographic analysis results

Most students still have the habit of buying clothes at the physical stores. 66.7% of the respondents answered that they buy clothes at the store more frequently and the other 28.1% said that they buy clothes online more often. This result can be explained by the fact that clothing is a long-term item and people are quite dependent on factors like fabrics, suitability and so on. They will feel insecure when buying clothes online.

Women buy clothes online more often. As many as 31.6% of women say that they shop online more often, compared to only 22% of men.

People with high incomes are more likely to shop online. The evidence is that the proportion of people who choose the answer “buy clothes online more often” is lowest among the low income group (25.3%), and tends to increase slightly in the higher income group (above 30%). This can be explained by the fact that people with higher incomes will often buy more expensive products online (as demonstrated later). In addition, it is also possible that the students earn a little higher from the income of part-time jobs and therefore have less time for shopping, and order goods online instead to save time.

The level of spending on clothes in the store is higher than online. In general, the higher the income groups have, the higher their spending on one purchase will increase. The percentage of participants choosing the answer “from 500,000 to 1 million VND” and “over 1 million VND” for 1 purchase is mainly in the income group of 6-10 million and over 10 million. The rates in the answers of low-valued bills such as “below 100,000 VND”, “below 300,000 VND” or “300,000 to

500,000 VND” are high in the low-income groups and decrease gradually as the income increases.

The level of spending per visit on buying clothes online is lower for women than for men. 53.7% of men spend 300,000-500,000 VND per visit when shopping online, while that rate for women is only about 36.8%. Most women spend between 100,000-300,000 VND per visit when buying clothes online. It can be seen that, although women buy clothes online more often than men, they often buy quite inexpensive and not too important items, while expensive items will be “saved” for shopping occasions at the physical stores.

ANOVA test results

Influence of groups of factors on purchase behaviors by gender. Specifically, when the research team analyzed the relationship between the observed variables in the “Subjective norms” factor group and the gender variable, male respondents had a higher rate of consent than female respondents. Although there are not too many significant statistical differences, the gender factor greatly affects the influence of groups of factors in the scale. Specifically with the variable “Online advertising”, the average score of female responses is higher than that of men in all observed variables, indicating that women are more affected by online advertising, especially the promotional information about discounts that stimulate this group’s purchase intentions. As can be seen, women are subjects who are more likely to be stimulated by beautiful images. Also, they tend to have a higher demand for clothing shopping, as they often feel that they do not have enough clothes. Therefore, the influence of advertising, as well as the ad interaction rate of this audience group is also higher. They are also the ones who are more of “deal

seekers” compared to men, so they will be easily stimulated by discount programs.

Influence of groups of factors on purchase behaviors by educational attainment. The higher level of educational attainment of the target group is, the higher the score of the response is, and the higher the awareness is, the more affected they are by cognitive factors that control their behaviors (for example, “Is the store near my place?”, “Is there enough information?” and so on). This target group also tends to be more secure when they can see, try and touch things by themselves (because they have a lot of knowledge and read many bad experiences of others about online shopping) and have greater desire to purchase clothes in the physical stores.

Test the model and build regression equation

The research team performed Cronbach's Alpha test and removed the observed variable INT5 from the model because it had an overall correlation coefficient of less than 0.3. With the remaining observed variables, the authors conducted factor analysis to discover EFA. The factor groups all gave results satisfying KMO value and Bartlett's test results were meaningful with Sig. = 0.00. Therefore, the authors reject the hypothesis H0: the observed variables are not correlated with each other in general; the variables satisfy the conditions for factor analysis. Finally, we conducted multivariate regression analysis to build the equation. The results showed that the independent variables explained 43.6% of the variation of the dependent variable. In addition, the “attitude” variable is the one that has the strongest influence on the dependent variable (the standardized regression coefficient is 0.461), followed by the “subjective norms” variable (the standardized regression coefficient is 0.212) and the final one is the “perceived behavior control” variable (the standardized regression coefficient is 0.192). The

“online advertising” and “eWOM” variables are not enough to confirm an influence on the intention to purchase O2O in the fashion industry. The regression model is as follows:

$$\text{INT} = 1.032 + 0.461 \cdot \text{ATT} + 0.212 \cdot \text{PC} + 0.192 \cdot \text{SN}$$

Therefore, the analytical results accept the hypotheses H3, H4 and H5 and reject the hypotheses H1 and H2.

Evaluating the level of customer satisfaction with the experience of buying clothes online

To analyze further and have a more multidimensional view of the research, the team conducted an assessment of the satisfaction level with the online shopping experience of consumers.

Satisfaction level with the clothes purchased online.

60.95% of respondents were satisfied when buying clothes online, 20.48% of them chose the category “other” with many different opinions, 13.33% were not satisfied, and 5.24% only buy clothes offline. Those who bought clothes online would continue to participate in satisfaction assessments of the products they have purchased. The number of samples for this question is 199. The statistics below show the assessment results of satisfaction with online clothing buying experience among 199 respondents.

The reason that shoppers are satisfied with the online shopping experience.

Research results show that people who buy clothes on online channels feel satisfied with this shopping experience the most because of its convenience, accounting for 35.5%. Online shopping is very fast, helping them save time and not have to go to the store. The second reason that these people are satisfied with the online shopping experience is product quality (28.31%). More specifically, the criteria that users set to

evaluate a product with good quality are: design, material, color and “same as described”. The next reason that these customers give is the price, accounting for 15.67%. Prices of goods on online channels are often considered to be relatively cheaper compared to offline channels thanks to discounts and free shipping.

Choosing a method of shopping after having enough information.

After having enough information, the respondents choose to buy online, all given the reason that they prefer convenience. Conversely, some respondents will go to the store to see and buy products, even when they have enough information online because they need to try the items on, hold and feel the product directly before making a purchase decision. Spending time and effort going to the store to see a product will give them the peace of mind to buy it. The rest said that there are more factors to consider before making a decision to shop online or offline. Factors include: the geographic location of the store (the further the store is, the lower the intention to buy offline is), the type of product (with size or freesize, topwear or bottom wear - some argue that casual pants are harder to fit than shirts, so they will buy directly if the product is bottomwear), promotion program (if the promotion applies to either of the two channels, they will choose to buy on the channel with promotion, or even willing to come to the place to try the products on and then order online to get the promotions), buy for the first time or buy again (if they bought the products once at the store and enjoyed good results, they will switch to buying online). However, the survey results also show that, those who choose to consider more appreciate the fact that they can try the products. If the aforementioned barriers can be removed, they will still choose to go to the store to see the product before making a purchase decision.

IV. CONCLUSION AND RECOMMENDING SOLUTIONS

The research topic “Factors affecting the intentions to purchase clothes in online to offline model (O2O)” has a number of limitations as follows. Regarding the research sample, the team used the favorable sampling method and the sample scope was concentrated in the area of Hanoi city. Regarding data analysis, currently, in the research paper, the authors only mentioned the exploratory factor analysis (EFA) method and performed linear regression using SPSS.20 software. In the future, it is possible to perform the confirmatory factor analysis (CFA) method and build SEM models for the most reliable results. In addition, the results of the topic have not yet accepted the impact of online advertising and eWOM on the intention of buying offline. In the future, other research groups may focus on these two analyzing factors, evaluate their influence, as well as discover factors that affect this degree of influence.

Research results provide SMEs in the fashion industry with a database to support their development strategies and plans. The team proposes a number of long-term and short-term solutions for businesses to increase the efficiency of the conversion from online to offline sales channels to maximize profits. In addition, a number of suggestions are suggested for consumers to get the best buying experience in the O2O model. Finally, the group proposes some solutions for the government to increase the efficiency of digital transformation for enterprises.

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