

Factors Affecting Consumer Behavior in Omni-Channel Marketing of the Fitness Industry: Motivation and Attitude Towards O2O Channels

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ABSTRACT

The online-to-offline (O2O) model has been used as an important strategy for marketers to rethink their omni-channel marketing recently. Perceived factors have been studied to investigate the factors that really influence consumers' attitudes towards channel adoption and their behavioral intentions. This study aimed to explore the relationship between the various dimensions of the O2O marketing model. The research model was conducted to test data collected from the survey questionnaires on 303 subjects. Two key factors of the O2O model, namely searching experience and purchasing experience, were believed to have a significant impact on consumers' behavioral intentions for channel adoption. The findings of this study could verify the factors that influence the determinants of consumer adoption of O2O channels. The results could strengthen the body of literature and provide fitness marketers with further insights into O2O strategy formulation.

KEYWORDS

Behavioral Intention, Fitness, Omni-Channel, Online to Offline

INTRODUCTION

With the change of consumption patterns in recent years, the relationship between the suppliers and consumers has developed from brick-and-mortar stores to online platforms, while consumers can shop online at any time with the popularity of mobile networks and devices. Although online platforms have great advantages in convenience and technology integration, the in-depth experience of brick-and-mortar stores cannot be replaced, which makes the O2O Omni-channel retailing model more and more popular (Xiao et al., 2019). O2O refers to e-commerce that combines online to offline physical and virtual channels to bring online consumers to brick-and-mortar stores to use products and enjoy services. Many companies now find themselves facing many difficulties in the process of virtual-physical integration. Teece (2010) argues that the selection of technology and features implied in products or services is conducive to the convenience and directness of both stores and consumers. Previous studies have proven that the variety of elements of business model play an important role in

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attracting consumers to expand the market, and to identify market segmentation and plan a competitive strategy (Lee et al., 2018; Thakran & Verma, 2013; Itami & Nishino, 2010).

In recent years, the growth of fitness clubs has driven the development of the fitness industry. Technological innovation and the evolution of business models make people no longer confined to traditional marketing channels. The O2O model can provide consumers with all the data required for online shopping; consumers make choices directly online, select suitable courses and personal trainers, and communicate with service providers. However, little research has put efforts on investigating consumer's perspectives towards virtual-physical integrated marketing in the field of fitness industry. The purpose of this study was mainly to explore the differences in consumer perceptions and attitudes towards integrated virtual-physical marketing under the Omni-channel consumption model of fitness industry. In addition, the study also examined the influence of consumers' perceptions and attitudes on their behavioral intentions, and determined the influence of consumer behavioral intentions of virtual integrated marketing on physical store shopping. The results could strengthen body of literature and provide fitness marketers with further insights into O2O strategy formulation.

LITERATURE REVIEW

Theoretical Background

Online to Offline (O2O) model begins to attract attention after the rise of online shopping. Cross-platform integration can make the connection point between goods and consumers more diverse and complex. Omni-channel refers to mobile network on smartphones. In order to make up for the shortcomings of physical and online channels, many companies are starting to adopt this business model to attract customers (Lee et al., 2018; Subramanian & Overby, 2017; Thakran & Verma, 2013). The discussion of the O2O model becomes one of the important issues in the future integration of virtual-physical channels. In traditional online stores, consumers mainly find information about physical stores through social media or online advertising. Nowadays stores locate nearby consumers and receive preferential information through mobile devices, thereby motivating consumers to purchase in store. Stores share product information on social networks to make consumers interested and click on the page, and then generate the purchase behavior.

Scholars discuss various types of factors of channel selection. Kim et al. (2019) explore the impact of product characteristics, customer experience, and customer service on the online channel. Chocarro et al. (2013) study the influence of the purchase situation on the adoption of online, and figure out that distance and time pressure are key factors affect consumers to choose different consumption channels. Risk perception may be another factor when consumers consider using online channels (Kleijnen et al., 2007). Furthermore, Zhang et al. (2012) measure the intention to adopt mobile commerce according to trust, entertainment, subjective norms, usefulness and ease of use, and compatibility. Upon the basis of literature review, it is suggested that when discussing the relationship between O2O channel adoption behaviors, product characteristics, risk perception and purchase situation should be considered.

Consumers will choose different channels, especially considering the factors of searching and purchasing channels (Verhoef et al., 2007). While searching suitable channels, some consumers consider the availability, convenience, and enjoyment of information (Bilgihan & Bujisic, 2015). Maity & Dass (2014) find out consumers may change searching channels based on the influence of media richness, searching experience, or length of time. Providing consumers with valuable experience and enjoyment of the searching process during shopping process is crucial. (Chang et al., 2018). Consumers always feel specific stimuli, generate motivation, bring cognitive or behavioral intentions, and add value through observation or participation (Inversini & Masiero, 2014). Several studies indicate that service quality, after-sales service, usefulness, delivery and payment risk, and

currency cost may affect consumers' intention to adopt multiple channels, and affect their behavior of adopting channels (Yu et al., 2011; Schroder & Zaharia, 2008).

Factors Concerned in the Searching Stage

Thus, this study suggests transaction procedures can be divided into searching and purchasing stages. In the stage of searching experience, consumers mainly consider factors such as information availability, search convenience, search enjoyment, media richness, and product accessibility. Scholars have proven that consumers often search for product information through online channels and change their behaviors due to the large amount of information available (Vehoef et al., 2007). Gupta et al. (2004) argue that consumers will consider whether they need to spend a lot of energy to find products. Therefore, the convenience of online information channels has considerable advantages.

Not only can the product be searched quickly, but consumers also consider whether they can receive entertainment benefits. Yu et al. (2011) explain that whether a channel has high entertainment value, avoidance psychology and internal enjoyment would affect consumers' choices. On the other hand, consumers can obtain real-time information through face-to-face communication, and may change their decision due to different media richness (Maity & Dass, 2014). Consumers tend to purchase goods in physical stores because merchants can timely communicate with customers, immediately and quickly provide important information (Brunelle, 2009). Consumers are concerned about whether the merchant provides the opportunity to try the product during the purchase process. Shin (2007) argues that due to availability of products provided by physical channels, consumers will increase their willingness to purchase from physical channels.

Factors Concerned in the Purchasing Stage

In the stage of purchasing experience, consumers mainly consider factors such as service quality, product diversity, perceived risk, purchase convenience, promotional information, and immediate accessibility. With the rise of the Internet, virtual channels provide efficiency, system stability, product performance, responsiveness, security. (Chen et al., 2019; Al-Nasser et al., 2014; Kacen et al., 2013). Research has found that if consumers were concerned about service quality, they would choose the physical channel (Moon & Armstrong, 2020; Du & Tang, 2014; Yong-zhi, 2014). Potential risks may affect the buyer's decision purchasing a product.

Hong & Cha (2013) find that consumers' consumption choices may be affected by the payment mechanism. However, consumers may be less inclined to use virtual channels for fear of personal information leakage, products not meeting their expectations, and spending more time to return (Verhoef et al., 2007). Consumers are most susceptible to price and various promotional information. Scholars believe that it will attract consumers to buy products through virtual channels if they can find prices that are more favorable on the Internet and the immediate availability of products as well. (Bang et al., 2013).

The Impact of O2O Models on Fitness Industry

The essence of O2O is to break through online and offline marketing models and integrate virtual and physical channels, which is affected by the company's resource capabilities. Companies have to find out the resources they lack, and then cooperate with other companies to achieve complementary resources. Fitness O2O breaks the traditional consumption model of purchasing annual memberships, allowing more users to have the opportunity to enter the gym; however, as large fitness chain brands have sufficient customer flow, their desire to develop customers through online platforms is not strong. Currently, the fitness O2O offline market is mainly concentrated in small and medium-sized gyms. Companies adopt different product positioning strategies to achieve their goal, and the fitness O2O with experiential services has added countless possibilities for the future of the fitness industry. Consumers will consider purchasing products through physical channels due to the timely solution of consumers' questions about the product, the processing speed of sales staff and the convenience

of return and exchange (Petersen & Kumar, 2009). However, Pookulangara et al. (2011) further suggest that consumers are more inclined to purchase products through physical channels due to the pursuit of hedonic and practical value. If consumers switch to online shopping, it means that they care about both practical value and experiential value. In the current situation, fitness O2O is in the early stage of development, the simplification of the profit model is not sound, and it is difficult to connect online and offline, which are issues that fitness O2O start-ups need to consider. While the O2O model provides a good market for the networked development of sports services, how marketers use the O2O model for online sales has become a very critical link.

METHODOLOGY

Measurement

The current study took a multi-item scale to collect data from voluntary participants. A survey questionnaire was developed, while the first portion used nominal statistical scales to understand respondents' background by utilizing "socio-economic" and "consumption characteristics" variables. In the second portion, the variables included "searching experience" and purchasing experience" dimensions. The searching experience scale was modified from study of Maity & Dass (2014) and Verhoef et al. (2007), containing "information availability", "search convenience", "search enjoyment", "media richness", and "product accessibility". A total of sixteen items were incorporated in the five facets. The purchasing experience was modified from study of Kollmann et al. (2012) and Verhoef et al. (2007). Twenty items were included in six facets, naming "service quality, product diversity, perceived risk, purchase convenience, promotional information, and immediate possession, respectively. Likert's seven-point scale was employed to evaluate respondent's degree of agreement, where 7= strongly agree, 4= neutral, 1= strongly disagree.

DATA COLLECTION

A pretest was administrated before the main study using 50 survey questionnaires. Cronbach's alpha was employed to ensure data reliability, and all scores are well above .70, thus meets the minimum acceptable level (Nunnally & Bernstein, 1994). Then, the online self-administered survey was conducted to collect data from members of selected branches of a franchise fitness center in southern Taiwan. A purposive sampling method was used, and subjects had at least one year of membership were eligible for the study. Hair et al. (2006) recommended sample size should be at least five times of total items, or the size of 200 observations for structural equation modeling. A total of 330 respondents were recruited and finally 303 questionnaires were considered effectively, which met the requirement of data analysis. Return data was coded and processed by using SPSS22.0 for Windows software. Descriptive statistics was performed to analyze the characteristic distribution of respondents. Exploratory factor analysis was employed to test validity, and Cronbach's alpha estimates were used to ensure the consistency of identified dimensions. Finally, canonical correlation analysis was performed to investigate the effect relationship between the constructs, and presented in the path model analysis.

RESULTS

Subject Characteristics

The following results provided the profile of the 303 valid respondents. In terms of gender, 140 males accounted for 46.2% of the total sample, and 163 females accounted for 53.8%. The 21 to 30 years old group accounted for the majority (n=196; 64.7%), followed by 31 to 40 years old (n=55; 18.5%), and 51 to 60 years old was the least (0.3%). Most of subjects were students, with 133 responses (43.9%), followed by service industry (n=110; 36.3%), and others was the least (n=15; 5.0%). Most are college

graduated, accounting for 178 (58.7%), and 114 high school graduated (37.6%). The monthly personal income of the respondents in this study ranged from NT\$ 20,000 to 50,000, accounting for 66%, followed by less than NT\$20,000, with 87 (28.7%).

Reliability and Validity

Exploratory factor analysis was employed to examine construct validity. First, three principal factors were extracted for searching experience construct (KMO=.904; Bartlett's Test of Sphericity=1837.08, sig.=.000), with 55.195% of total variance explained, which represented 39.94% for "Information Convenience (S1)", 8.33% for "Supportive Enjoyment (S2)" and 6.93% for "Experiential Accessibility (S3)", respectively. Secondly, three principal factors were extracted for purchasing experience construct (KMO=.924; Bartlett's Test of Sphericity=2382.94, sig.=.000), with 51.95% of total variance explained, which represented 39.63% for "Service Diversity (P1)", 7.00% for "Perceived Risk (P2)" and 5.32% for "Immediate Possession (P3)", respectively. The loadings of each factor showed higher than suggested value of .5, which met the minimum requirement and possessed convergent validity. The Cronbach's alphas of subscales presented from .765 to .841. All values were well above .70, reaching the minimum acceptable level (Nunnally & Bernstein, 1994).

Canonical Correlation Analysis

The purpose of this research was to examine the relationship between searching and purchasing experience constructs, and to figure out the relationship between each dimension. Canonical correlation analysis was implemented with dimensions of "Information Convenience (S1)", "Supportive Enjoyment (S2)", and "Experiential Accessibility (S3)" as X variables (Covariates), and "Service Diversity (P1)", "Perceived Risk (P2)", and "Immediate Possession (P3)" as Y variables (Dependent Variables). The results showed that two functions of canonical correlation were identified between searching and purchasing experience constructs (Table 1). Both functions reached a level of significance ($p < .05$), which explained 98.75% and .99% of eigenvalue variance, respectively. As a result, both covariates of χ_1 and χ_2 explained 74.9% and .029% of total variance towards dependent variables of η_1 and η_2 .

Table 1. Canonical Correlation Analysis between Searching and Purchasing Experience

Roots No.	Eigenvalue	% of Variance Explained	Canonical Correlation	Sq. Canonical Correlation	Wilk's L.	F	P
1	2.982	98.75	.865	.749	.242	63.580*	.000
2	.030	.99	.170	.029	.963	2.801*	.025
3	.008	.26	.088	.008	.992	2.347	.127

* $p < .050$

As shown in Table 1 and 2, the first function (χ_1 and η_1) indicated the canonical correlation was .865 ($F=63.580$, $p=.000 < .050$). Covariates (S1, S2 and S3) demonstrated highly correlated with the canonical variable χ_1 , as coefficients were -.813, -.840 and -.906, respectively. Dependent variables (P1, P2, and P3) demonstrated highly correlated with the canonical variable η_1 , as coefficients were -.966, -.737, and -.853, respectively. The second function (χ_2 and η_2) indicated the canonical correlation was .170 ($F=2.801$, $p=.025 < .050$). Covariates (S2) showed a moderate correlation with the canonical variable χ_2 , as coefficient is .539. Dimensions of S1 and S3 showed relatively low correlations with the canonical variable χ_2 , while coefficients were .298 and -.235, respectively. Dependent variables (P3) showed a moderate correlation with the canonical variable η_2 , as coefficient

was -.512; however, dimensions of P1 and P2 had lower correlations with the canonical variable η_2 , while coefficients were .223 and .079, respectively.

Table 2. Summary of Canonical Correlation Analysis between Variables

Covariates (Searching Experience)	Canonical Variables		Dependent Variables (Purchasing Experience)	Canonical Variables	
	χ_1	χ_2		η_1	η_2
Information Convenience (S1)	-.813	-.298	Service Diversity (P1)	-.966	.223
Supportive Enjoyment (S2)	-.840	.539	Perceived Risk (P2)	-.737	.079
Experiential Accessibility (S3)	-.906	-.235	Immediate Possession (P3)	-.853	-.512
% Var Extract	72.929	14.489	% Var Extract	73.498	10.596
Redundancy	54.613	.420	Redundancy	55.040	.307
			p^2	.749	.029
			p	.865***	.170***

*** $p < .001$

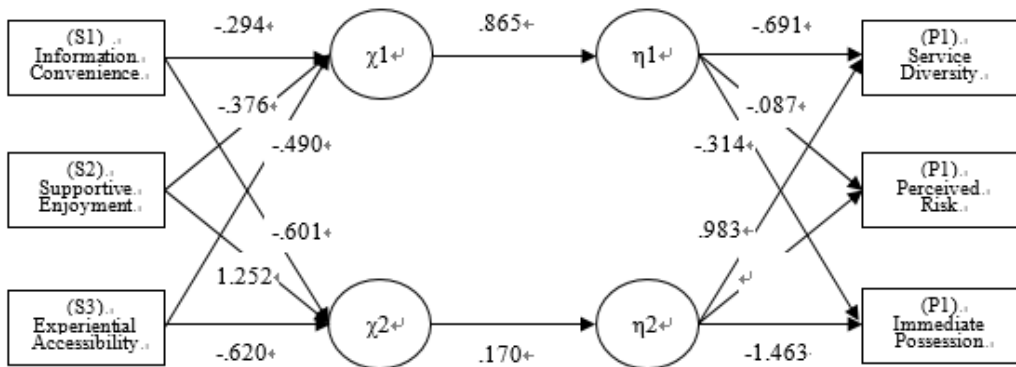
Results in Table 2 provided the percentage of variance extracted from canonical variable χ_1 and χ_2 were 72.929% and 14.489%, and percentage of variance extracted from canonical variable η_1 and η_2 were 73.498% and 10.596%, with 55.040% of redundancy explained by canonical variable η_1 and .307% of redundancy explained by canonical variable η_2 . Therefore, the canonical correlation function illustrated the dimensions of “S1”, “S2”, and “S3” were to explain 55.347% (55.040+.307) of total variance for the dimensions of “P1”, “P2”, and “P3”. The two canonical correlation functions could directly explain 77.8% (.749 + .029) of total variance for the purchasing experience construct. The obtained canonical correlation and redundancy value of canonical function 1 was greater than that of canonical function 2. It was recommended that covariates of canonical function 1 towards searching experience construct had impact on the three dependent variables directly. The values of dimension “S1”, “S2”, “S3”, “P1”, “P2” and “P3” in function 1 presented well above .70, indicating dimensions of searching experience had significant effects on dimensions of purchasing experience. It could be concluded individuals with higher level of searching experience in S1, S2, and S3 would perceive higher values than those with lower level of purchasing experience.

DISCUSSION

Figure 1 provides a path analysis for canonical correlation model with regard to constructs towards searching and purchasing experiences. As illustrated, the correlation loadings between covariates and canonical factor χ_1 are -.813, -.840, and -.906 (with standardized canonical coefficients of -.294, -.376, and -.490). It follows that dimension S1, S2, and S3 demonstrate significant effects on canonical factor χ_1 . Additionally, the standardized canonical coefficients between canonical factor η_1 and dependent variables are -.691, -.087, and -.314 (correlation loadings are -.966, -.737, and -.853). Canonical factor η_1 demonstrates a high correlation with dimension P1, P2, and P3. In view of canonical function 1 ($\chi_1 @ \eta_1$), the findings indicate dimension S1, S2, and S3 have significant effects on dimension P1, P2, and P3. That is, throughout the path of canonical function 1 ($\chi_1 @ \eta_1$), consumers' purchasing experiences will be affected by searching experiences.

The correlation loadings between covariates and canonical factor χ_2 are -.298, .539, and -.235 (with standardized canonical coefficients of -.601, 1.252, and -.620). It follows that dimension S1, S2, and S3 demonstrate significant effects on canonical factor χ_2 . Moreover, the standardized canonical coefficients between canonical factor η_2 and dependent variables are .983, .406, and -1.463 (correlation loadings are .223, .079, and -.512). Canonical factor η_2 demonstrates a high correlation with dimension P1, P2, and P3. In view of canonical function 2 ($\chi_2 \otimes \eta_2$), the findings indicate dimension S1, S2, and S3 have significant effects on dimension P1, P2, and P3. That is, throughout the path of canonical function 2 ($\chi_2 \otimes \eta_2$), consumers' purchasing experiences will be affected by their searching experiences.

Figure 1. Path model of canonical correlation analysis



The findings of current study indicate that searching experience directly affects purchasing experience in terms of S1, S2, and S3 by canonical correlation function 1. This implies that marketers in the fitness industry should consider the successful matching of experience and value when proposing O2O marketing strategies. The three variables seem to have important value attributes that match the perceived experience values. This means that value perception will be directly affected by the level of consumption value.

CONCLUSIONS

Based on the overall model, if consumers are more concerned about the product supportive enjoyment and experiential accessibility, they will tend to search through brick-and-mortar stores. It also shows that physical channels allows consumers to obtain more detailed information through sales staff, conversion of different opinions, or instant feedback of information. Meanwhile, it allows consumers to better understand the content of product; through physical channels, consumers can actually apply or see the real product, to ensure that the product is suitable for them. Virtual channels provide consumers with the most real-time product information, promotional activities, discounts and booking services, effectively shortening the distance between consumers and businesses. For consumers, the advantage of the O2O model is to provide the latest discount information and service reservations, and extend physical store activities to the Internet, so that consumers can choose the most satisfactory products. On the other hand, service diversity and perceived risk have become the main considerations for consumers when they choose to purchase goods through physical channels, because stores can

provide better sales service quality and may reduce online shopping risks. Consumers can choose a suitable delivery service that better meets their needs, such as direct pickup or delivery service. Therefore, consumers may change their channel choices due to the immediacy of product use or waiting for product delivery.

IMPLICATIONS AND FUTURE DIRECTIONS

This study constructs the relationship between O2O considerations and behavior patterns, understands the relationship between adoption behavior and adoption factors in various channels, and establishes the differences between adoption behavior considerations under O2O marketing models. For management implication, finding solutions with consistent quality can effectively reduce consumer's dissatisfaction after making a decision, which may be a key factor in manipulating consumers to evaluate the value of their experience.

This study uses fitness consumers as empirical evidence, and examines the relationship between structural dimensions through canonical correlation analysis. It is suggested that future research can consider other behavioral variables, such as satisfaction, purchase intention, loyalty, word of mouth, etc., to further study the O2O model of the fitness industry. In general, further investigations can be conducted to examine the causal relationship between each variable.

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