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Research Paper

An Outside-Inside Motivation Determines College Students' Online Shopping Behaviors

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ABSTRACT

The current study explored how college students' self-determined behaviors of autonomously using cutting-edge interfaces are driven by individuals' extrinsic or intrinsic motivations toward online shopping. Interviewer-mediated surveys were implemented to collect primary data from a sample of college students with at least three years of online purchasing experience. We successfully recruited 330 informants to complete two-staged questionnaires involving a simulated context of B2C e-commerce purchase behaviors. Our findings suggested that online shoppers' extrinsic-motivated (reach) easiness of accessibility is associated with the usage of (conversion keys) promotional strategy and usage of payment media and security. Furthermore, the shoppers' consumption experience influences their intrinsic feedback behaviors, which then links to their access to specific online stores. Commercial promotions tie in with coupons and premium strategies Taiwanese college students crave.

Keywords: Online shopping; self-determination; college students; extrinsic motivation; intrinsic motivation; word of mouth

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1. INTRODUCTION

With the comprehensive popularization of e-commerce, intensive internet marketing events directly contact customers the whole day and global areas via various media and internet portals (Sabar, 2022). Online B2C (business-to-customer) sales have become mainstream and the most competitive business strategy to serve consumers in the digital age for recent decades (Al-Adwan *et al.*, 2022). E-commerce in Taiwan has accounted for US\$13.78 billion of B2C retail sales, and the online market remains growing year after year. Various carriers (e.g., computer, cell phone, pad) and e-platforms (e.g., Google, Yahoo, Bing, and social media APPs) of internet transmission enable customers to exchange information easily. Furthermore, people tend to express how they feel about the service quality of a specific online store and about personal experiences of using a certain product on public online message boards. Providing modern business entities fail to take advantage of online marketing techniques and advertising practices; they might lose the key competitiveness in their market (Caniëls *et al.*, 2015). Multimedia communication technologies have become requisite in B2C marketing agendas.

College students, the most potential online shoppers (Duong & Liaw, 2022; Kuswanto *et al.*, 2019), possess specific purchasing power in the online marketplace because high reliance on the internet has become their lifestyle. Despite numerous prior research focused on B2C online shopping, the specific online shoppers' (e.g., college students) motivation and purchasing behaviors remain changing and need to be updated (Duong & Liaw, 2022; Sabar, 2022). Furthermore, customer digital footprints of online store content have received mostly attention, but the interactive association between each stage of an online shopping flow must be elaborated (Ettis, 2017; Hidayat & Hidayat, 2017). The critical value of customer relationship management is to discover customers' potential demand and deliver the right products/services to meet the demand. The current study investigates how college students are determined to take action at each stage of an online shopping procedure. These stages include how they reach internet portals of online stores, how they perceive conversion keys for placing online orders, and leave feedback

on purchase experiences (Al-Adwan *et al.*, 2022) through communication media. Online marketers attach importance to acquiring customers' positive public feedback, which are beneficial to generate reputation and familiarity in the public consciousness, attracting more consumers to reach the online store. A customer relationship management loop of reach, conversion, consumption, feedback (Figure 1), and reach can be considered as customers' self-determined behaviors to respond to the 4Ps (product, pricing, place, and promotion) of virtual retail stores (Al-Adwan *et al.*, 2022; Cavaliere *et al.*, 2021; Nemati & Weber, 2022; Singhal, 2021). Internet users (e.g., college students) are immersed in tailored online advertisements concerning products, services, customized promotional activities (Bhatt & Emdad, 2001), and online–offline product delivery channels. nevertheless, how online shoppers do “clicks” for each stage in a loop warrants particular attention by online marketers to establish the right tracks of online marketing strategy.

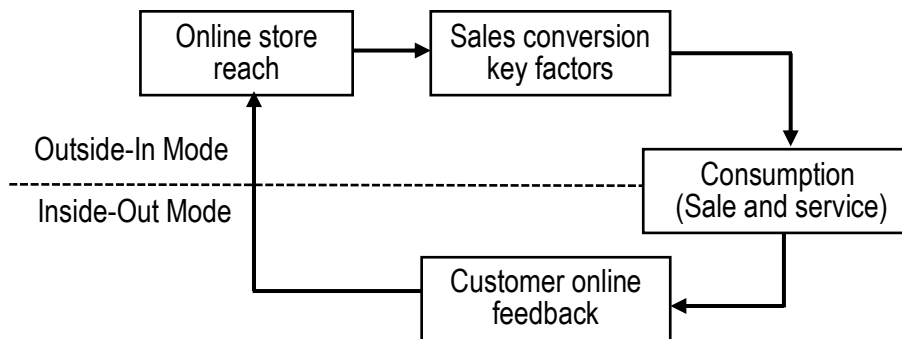


Figure 1. Theoretical Framework

Note: This theoretical framework is based on previous studies' online customer relationship management (i. e., Al-Adwan, *et al.*, 2022; Cavaliere *et al.*, 2021; Nemati & Weber, 2022; Singhal, 2021)

This study echoes prior scholars (e.g., Sabar, 2022) to investigate how college students' self-determined behaviors reflect their experiences in online shopping flow, contributing to the domain knowledge in three ways. First, extending from self-determination theory in consumption (Zhao & Wu, 2020; Zilka, 2018), this study examines the flow of four online shopping behaviors—reach online store, critical factors of sales conversion, consumption, and feedback behaviors (Cavaliere *et al.*, 2021; Nemati & Weber, 2022; Singhal, 2021)—that are separately driven by online shoppers' extrinsic and intrinsic motivation (Ali *et al.*, 2020; Li &

Wen, 2019). Second, this study establishes an outside-in and inside-out motivation loop to deliberate the online shoppers' extrinsic-motivated and intrinsic-motivated behaviors, which explains the stage associations in an entire flow experience of customers' online shopping. Third, by refining the flow of customers' online shopping behaviors, this study investigates the detailed tracks of college students' experiences in selecting reach (online stores), influential sales conversion key factors, consumption (close a deal), and online feedback modes (electronic word of mouth, eWOM; Chu & Kim, 2011; Rosario *et al.*, 2020). The sequential decisions made by online shoppers in an online transaction can account for what can be effective marketing instruments for the online stores (Bonnin, 2020; Hilken *et al.*, 2017).

In the next section, the theories used in this study and the inferred research hypotheses are introduced. This is followed by the method section, which explains the study's use and the advantages of two-phase surveys and data analytic strategies. Moreover, the followed are sections of analytical results, discussion, implications for theory, and managerial development.

2. LITERATURE REVIEW

In this section, we illustrate the outside-in loop (extrinsic motivation) and inside-out circle (intrinsic motivation) based on self-determination theory. Herewith, the causal relationships between the process of reach-conversion key-consumption-feedback have been developed into four relevant research hypotheses.

2.1 Self-determination theory (SDT) in consumption

Self-determination theory (SDT) refers to a comprehensive approach concerning the development of human personality and the change of self-motivated behaviors, which relates to individuals' instinctive inclination and psychological needs (Markland *et al.*, 2005; Ryan & Deci, 2017). SDT was widely used to cover different continuum ranges of self-determined behaviors among intrinsic motivation, extrinsic motivation (intermediate level), and autonomous motivation (non-self-determined behaviors; Gagne & Deci, 2005). The intrinsic motivation approach is associated with consumers' interest, enjoyment, inherent satisfaction, whereas the extrinsic motivation approach is associated with external influences on customers, such as rewards/punishments due to compliance, self-control, ego-involvement, personal importance, congruence (Gagne & Deci, 2005; Deci & Ryan, 2012). Since self-determination theory underlies individual dissimilarities, different individuals are assumed to have extra motivation to

seek for satisfaction in consumption (Sharma, 2016). SDT in consumption relates to individual involvement in a consumptive behavior which can be interpreted as “an unobservable state of motivation toward an associated service or product” (Hwang *et al.*, 2005). Customers' intrinsic motivation, a nature, and inherent drive toward a product and service relates to an individual's subjective perception and emotional responses to the product's meaning (Siu, 2013). Online customers' extrinsic motivation toward a product or service comes from the external sources in various contexts with different individual's relative autonomy. Online customers' buying behavior is often motivated by extrinsic cues in the forms of multiple marketing strategies and tools which the online store employ, such as the easiness of website accessibility (reach), promotion strategies and on product portfolios (conversion), which influences a consumer's purchase behavior (Purwanto, 2022). On the other hand, online shopping behaviors rely on several intrinsic motivation cues, such as categories of the product or service they initially need to purchase (Bagga & Bhatt, 2013). After online transaction (consumption), online shoppers may tend to share their feelings related to the experiences of purchasing some products and services and care to re-purchase products via the specific online store (Al-Adwan *et al.*, 2022).

2.2 Reach-conversion key-consumption-feedback

Online business entities use internet marketing to attract specific market segments (Constantinides, 2006) through various B2C reachable connectivity, communication strategies (e.g., website designs), and direct contact (e.g. social media) to facilitate online transactions. Adopting plenty of premium customer payment options, these entities inspire online shoppers' motivations to place online orders. Online marketers need to consider effectively online marketing strategies through online shoppers' self-determined behaviors in a shopping process (i.e. reach, conversion, consumption, and feedback). *Reach* represents the determination of Web portals for the formality of online business channels such as shopping malls, official websites, and advertising flyers to gather numerous online shoppers. The crucial part is utilizing diverse technology media outlets and delivering abundant product information to consumers (Menezes, 2013; Viio & Grönroos, 2014). *Conversion keys* represent how product information ties in with sales promotions to assist consumers in the process of preordering and choosing payment options. Conversion rates represent the achievements of online business entities in convincing visitors to make actual purchases (Moe & Fader, 2004). This study is aimed at customer acceptance of various promotional alternatives and payment options, which can facilitate real

purchases. *Feedback* is interpreted as frequent users sharing their consumption experiences, assessments, critiques, and recommendations over various online channels. Moreover, user feedback can attract more other consumers' interest. Cutting-edge advancements in network communication technologies have resulted in influential contact between consumers and businesses (Clark, 2017; Viio & Grönroos, 2014). The growing trend of internet media has become central for consumers' overall appraisal of their purchasing experience and product use (Cavaliere *et al.*, 2021; Nemati & Weber, 2022), aimed at other potential online customers.

2.3 Extrinsic motivation: Outside-In loop

B2C e-commerce platforms provide more opportunities to contact potential customers by overcoming the consumption of time caused by district restrictions (Menezes, 2013; Viio & Grönroos, 2014). Thus, online marketing strategies emphasize increasing practical exposures to promotional information to create customers' perceived benefits or incentives from specific online purchases (Lestari, 2019). Nowadays, online marketers can tailor-make individual customers' specifications of promotional contents by tracing personal digital footprints of visiting favorite products, categories, or events. Through big data algorithm, individual customer's digital prints become crucial evidences for online marketers to provide each potential customer with precise information about the product/service mix (Arya *et al.*, 2019). Individuals' self-determination guides the online shoppers to assess the entries of online stores through customized internet advertisements. Potential shoppers decide if the extrinsic characteristics of the communication contents motivate them to reach the specific portals of online stores (Gupta & Gupta, 2019; Prashar & Mitra, 2020). In other words, online marketers maximize the exposure of promotional information through mass media, bringing customers' sharp focus on specific products, events or websites (Purwanto, 2022). Online shoppers' extrinsic-motivated tendencies to reach specific portals of online stores include specialized official websites, online shopping malls, auction websites, app flyers, email, or search engines. Through online shoppers' reach of the online stores, a broader range of customer requirements for various business deals can be met because of numerous promotional sales events (conversion keys), creating commercial transaction possibilities (Nemati & Weber, 2022). Different internet reach portals can serve as media, helping consumers to obtain more promotional information and to enter conversion keys which induces them to place orders, make payments, and transmit results. We therefore proposed the following hypothesis:

H1: *Online shoppers' extrinsic motivated tendency of to reach an online store associates with their conversion essential selections.*

To encourage customers to make purchases during online visits, marketers usually launch a great deal of price promotions (Moe & Fader, 2004). Online marketers use the advantages of price transparency and competitiveness for online products and services (Chaffey & Smith, 2017), which traditional retail stores or other channels cannot achieve. Thus, online marketers easily manipulate the strategies of price discrimination and price customization (Bhatt & Emdad, 2001) to enhance sales and customer loyalty. Nevertheless, Yeo *et al.* (2017) proposed that only 2% of shoppers place formal orders on their first visit to an online store; therefore, retargeting the remaining 98% of window shoppers is a typical conversion strategy. Online marketers tend to use effective online promotion strategies matched with fluent payment media (e.g., ATMs, i-bon of convenient stores, credit cards, telecommunication payments, or telegraphic transfers) to encourage shoppers to place orders. When online shoppers' extrinsic motivation facilitates them to accept the conditions of promotional products or services with the specific alternatives of payment media (conversion keys), they tend to place orders in online actual purchases. For example, some online stores apply coupons (discounts) or free gift strategies to attract price-sensitized online customers to place orders for promotional products and services. We, therefore, proposed the hypothesis:

H2: *Online shoppers' extrinsic motivated tendency of conversion key selections associated with their consumption behaviors.*

2.4 Intrinsic motivation: inside-out loop

Different lifestyles, personalities, and attitude may influence each online shopper who has a specific intrinsic motivation to purchase a type of online product or service (Bagga & Bhatt, 2013). Based on time saving and unlimited market boundaries of B2C e-commerce, online marketers should create conditions that facilitate users' intrinsic motivation (Da Costa & Casais, 2020) to exercise online consumption. After online shoppers experience ordering, paying for, and receiving the products or services, they complete the whole process of online consumption (reach the online store-conversion key-consumption). Contemporary online consumers tend to share their personal consumption experiences with others by using phones, blogs, Facebook fan pages, emails, LINE / Wechat groups, mailed letters, and supplier interviews, and this feedback attracts the attention of both subscribers and nonsubscribers (Clark, 2017; Viio & Grönroos,

2014). Customers' intrinsic motivation facilitate them to provide feedback opinions such as assessment system, rating by five stars, and thoughts on the purchases are influential on the potential customers. Singh *et al.* (2016, April) considered the assessment parameters of e-commerce quality, including user satisfaction, user friendliness, simplicity, speed, recommended products, product information, etc. Online shoppers tend to convey their appraisal of the products and services to other internet users. We therefore proposed the following hypothesis:

H3: *Online shoppers' intrinsic motivated consumption tendency is associated with their online feedback behaviors.*

Functions of B2C e-commerce websites facilitate direct communication, interaction, and customer feedback; customer control has become higher through transparent online working platforms. Online-offline service consistency alters the traditional limited channels of the 4Ps, particularly because consumers who have made purchases online tend to share their experiences and provide feedback to others over communication technologies (Clark, 2017; Viio & Grönroos, 2014). This communication is critical because it helps potential customers choose suitable and functional (internet portals) platforms to reach online stores and acquire realistic information. Furthermore, the openness of information communication is exposed through direct links on other platforms. When online shoppers receive beneficiary purchase experiences, would like to share feedback opinions (Cavaliere et al., 2021) on individuals' experiences through various media, these shoppers' intrinsic motivation facilitates them to reach the same internet portals. This led us to propose the following hypothesis:

H4: *Online shoppers' intrinsic motivated tendency of online feedback behaviors associated with their reaching the same online channels.*

3. METHODOLOGY

In this section, we illustrate how we implemented data collection, selected appropriate research variables, developed measure scales, executed analytic strategies, and demonstrated analytical results.

3.1 Sample collection

In this study, interviewer-mediated surveys (Engel, Jann, & Lynn, 2015) were used to collect primary data from college students majoring in Business Practice and Marketing. We implemented purposive sampling by recruiting qualified informants on campus who had at least three years of online purchasing experience. We successfully recruited 358 informants to complete two questionnaires involving a simulated context of B2C e-commerce purchase behaviors (with 1-month interval between the questionnaires). To ensure the quality of the collected data, we trained three groups of six research assistants to be onsite interviewers, who took charge of conveying the simulated context using PowerPoint slides. We gathered around 40 to 45 participants in a classroom during the break time between classes. Each survey took about 30 minutes to instruct the college students (participants) to complete all of the questionnaire items. In the process, we used projectors to show eight slides to illustrate the marketing mix of the situation simulation context: two drops were related to the characteristics of online malls, two were related to reach and conversion items, and two were related to feedback and consumption items. The instructors needed to ensure the same illustrative contents and to directly offer further explanation when participants raised questions related to questionnaire items. The authors instructed the interviewers to use a time-lagged design method to avoid the potential influence of fatigue and impatience during the questionnaire reply process. We arranged the variables of outside-in loop (reach modes to the online stores and conversion keys of promotional strategies and payment options) to be replied to at Time 1. After one week, the variables of the inside-out loop (consumption to feedback on personal purchase experiences and to reach the online stores) was replied to at Time 2. We collected and matched adequate data from 330 qualified online shoppers of college students. Regarding the sample characteristics, 60% were females (40% were male) aged 18-22.

3.2 Variables, measures, and analytic strategies

This study is based on the customer self-determination perspective to investigate the specific portfolios of outside-in loop driven by online shoppers' extrinsic motivation (i. e., reach, conversion, consumption) and inside-out loop driven by their intrinsic motivation to provide feedback and get the same online stores (repurchase products or shopping via the same channels, Al-Adwan *et al.*, 2022). First, concerning *reach*, each consumer's preference for choosing internet portals of online stores is different. Some consumers prefer to link directly to the official

front pages of specific online business entities, others prefer to connect to composite types of online malls, stores, or entries. Because of the various media accesses for consumers to reach, this study obtained the eight types of *reach* portals provided by our informants of college students. These portals include official front pages of specific business entities, online malls, auctions, Yahoo+ connected, email, Apps, TV shopping channels, and E-flyers. Informants were also asked to rate each item of the reach portal on a scale from 1 to 5 to indicate the degree of acceptance of each media. Second, a two-item questionnaire related to customer conversion keys of promotion alternatives was administrated. *Payment and coupons* were measured using a 5-point Likert scale, ranging from 'strongly disagree' (1) to 'strongly agree' (5). The other customer conversion of payment media included ATMs, i-bonus of convenience stores, credit-cards, telecom payments, and telegraphic transfers (T/t). Informants were asked to rate each item on a scale from 1 to 5 to indicate the degree of acceptance of the payment method. Third, feedback measurement was applied to understand which multi-media the participants use habitually to convey their comments and recommendations after purchasing merchandise (Rosario *et al.*, 2020). They are: phone calls, Emails, fan pages, blogs, Line/ Wechat, mailed letters, and supplier interviews. Informants were asked to rate each item on a scale from 1 to 5 to indicate the degree of acceptance. Informants were asked to rate on a scale from 1 to 5 to show two aspects of consumption behavior in ordering decisions and ordering intention.

This study proposes four essential hypotheses according to self-determination theory and outside-in and inside-out loops to verify the variable relationships. The author especially addresses the fact that different portfolios of online marketing should observe customers' intrinsic and extrinsic motivation toward the circle of reach-conversion key-consumption-feedback-reach. This study adopted Canonical correlation analysis to examine the relationships between two multivariate sets of variables (i, e. reach to conversion, conversion to consumption, consumption to feedback, and feedback to reach). The effects of each research item on the research construct has been examined; furthermore, the relationships between outside-in and inside-out loops have been reviewed to support the research hypotheses.

4. RESULTS

This study investigated the college students' perception of online marketing portfolios (*reach, conversion, consumption, and feedback*) by building outside-in and inside out loops according to

customers' extrinsic and intrinsic motivation in a self-determination perspective. The results of the canonical test on online shoppers' reach mode to conversion critical show significant positive canonical correlations (Figure 2): reach mode on conversion key 1 (.257*, $p < 0.05$) and reach mode on conversion key 2 (.274†, $p < 0.1$). Hypothesis 1 was supported. Inspecting the canonical correlations of reach mode on conversion key 1, four reach items of the canonical loadings are influential among the eight reach items: auctions (.418), Yahoo+ (.360), APPs (.839), and TV shopping channels (.518). In addition, two conversion essential promotions items are influential (coupons .974; premiums .643). The canonical correlations of reach mode on conversion key 2 show that only Yahoo+ (.540) influences the eight reach mode items; moreover, i-bons of convenience stores (.461) and telecommunication payment modes are influential among the five payment media.

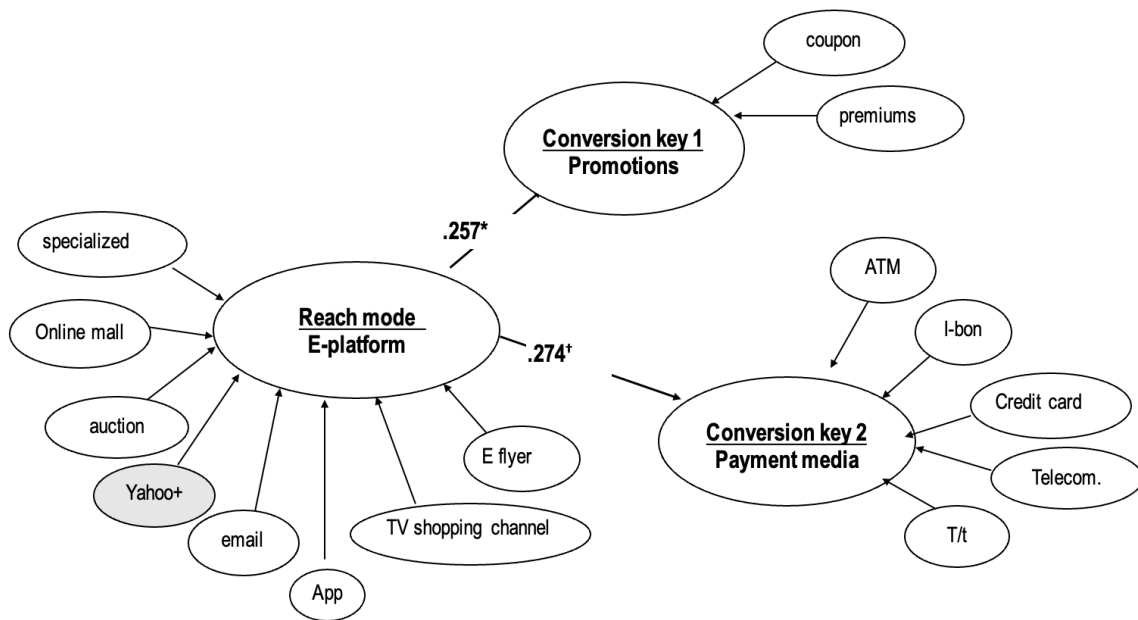


Figure 2. Reach to Conversion keys

Note .1. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

2. Reach mode to Conversion 1 with Wilk's (.912), Chi-SQ (30.114), DF (16.0), Sig. (.017)
3. Reach mode to Conversion 2 with Wilk's (.846), Chi-SQ (54.547), DF (40.0), Sig. (.062)
4. Telegraphic Transfer (T/t); Telecommunication payment (Telecom.)

Figure 2 indicated that the college students would reach specific internet portals, increasing their connection to the online store's promotional advertisement and payment options. First, about reach mode on conversion key 1 (online store promotion), the college students are more likely to use auctions, Yahoo+, APPs, websites of TV shopping channels, and so forth for networking. Coupons and premiums are highly accepted as promotion strategies. Second, about reach mode on conversion key 2 (payment media), the college students were more likely to use the Yahoo+ platform because they preferred to acquire professional knowledge, input, and general comments via Yahoo+ as references for the purchasing process. Furthermore, i-bonus of convenience stores and telecommunication payments were the top two mainstream payment media for Taiwan college students.

In Figure 3, the results of the canonical test on conversion key 1 (.201**, $p < 0.01$) and 2 (.369***, $p < 0.001$) to consumption present significant positive canonical correlations. Therefore, hypothesis 2 was supported. In the canonical correlations of conversion key 1 to consumption, the results of canonical loadings indicate that premiums (.889) and coupons (.810) are influential promotions; moreover, ordering decisions (.437) and intentions (.911) are effective for customers when placing orders. The canonical correlations of payment media to consumption show ATMs (.690), i-bons of convenience stores (.506), credit cards (.6978), and telecom. (.564), and T/t (.505) are all influential; also, ordering intention (.911) is significant among the two consumption items.

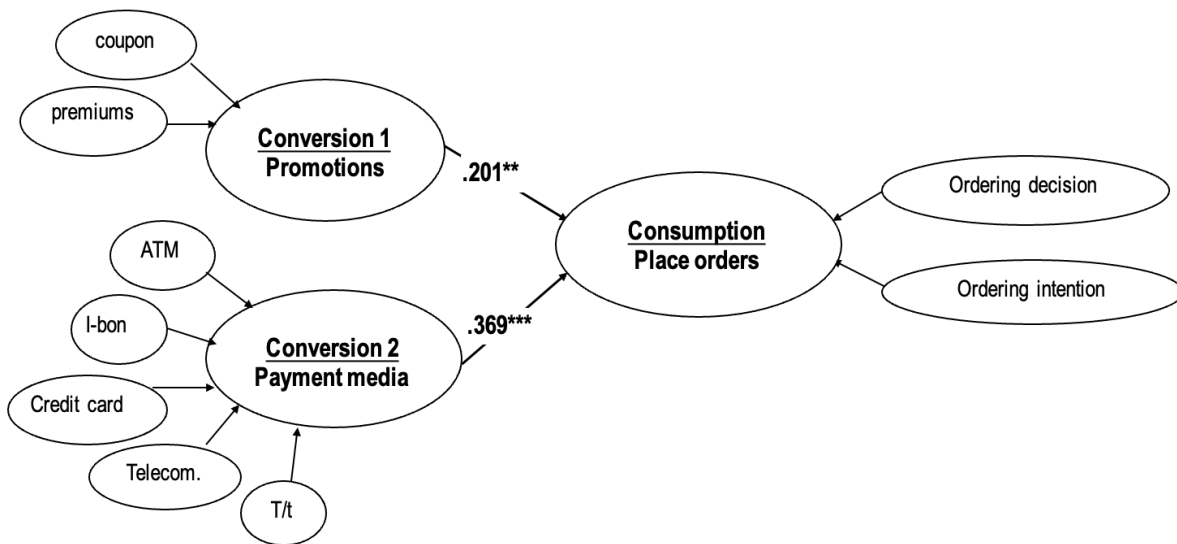


Figure 3. Conversion to consumption

Note 1. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

2. Promotions to consumption with Wilk's (.959), Chi-SQ (14.041), DF (4.0), Sig. (.007)
3. Payment media to consumption with Wilk's (.852), Chi-SQ (52.834), DF (10.0), Sig. (.000)
4. Telegraphic Transfer (T/t); Telecommunication payment (Telecom.)

Figure 3 indicated that coupons and premiums positively influenced college students as incentives within promotion schemes. That is, ordering decisions and ordering intentions mainly correspond with coupons and premiums. Second, regarding payment media to consumption, the college students tended to use ATMs, i-bons of convenience stores, credit cards, telecom, and T/t as payment media which significantly related to ordering intentions.

In Figure 4, the results of the canonical test on consumption to feedback (.266**, $p < 0.01$) present significant positive canonical correlations. Hypothesis 3 was supported. The results of the canonical loadings indicate that ordering decisions (.546) and intentions (.853) are influential to consumption; moreover, E-mail (.545), phone (.846), Line (.524), fan's pages (.399), and blogs (.447) are influential among the seven feedback items.

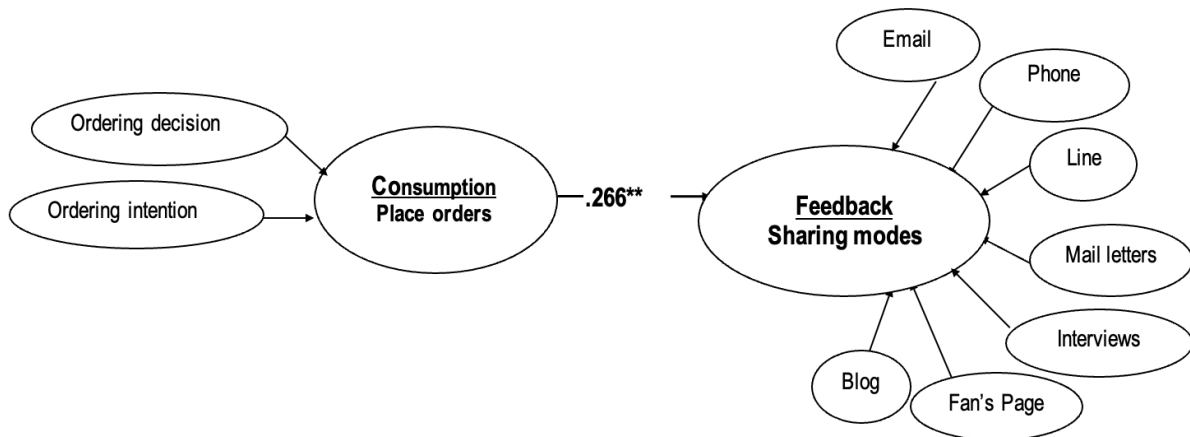


Figure 4. Consumption to feedback

Note 1. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

2. Consumption to feedback with Wilk's (.912), Chi-SQ (30.321), DF (14.0), Sig. (.007)

Figure 4 indicated the college students' consumption behaviors facilitating their feedback (eWOM). They tended to use Emails, phones, Lines, fan pages, and blogs as communication media to interact and spread their experiences in social networking.

The results (Figure 5) of the canonical test on customer feedback to reach mode showed significant positive canonical correlations (.345***, $p < 0.001$). Hypothesis 4 was supported. The phone was the only one of the seven canonical loadings correlations of feedback that proved influential (.369). In addition, three types of reach modes are significant among the eight items: Yahoo+ (.323), APPs (.705), and TV shopping media (.498).

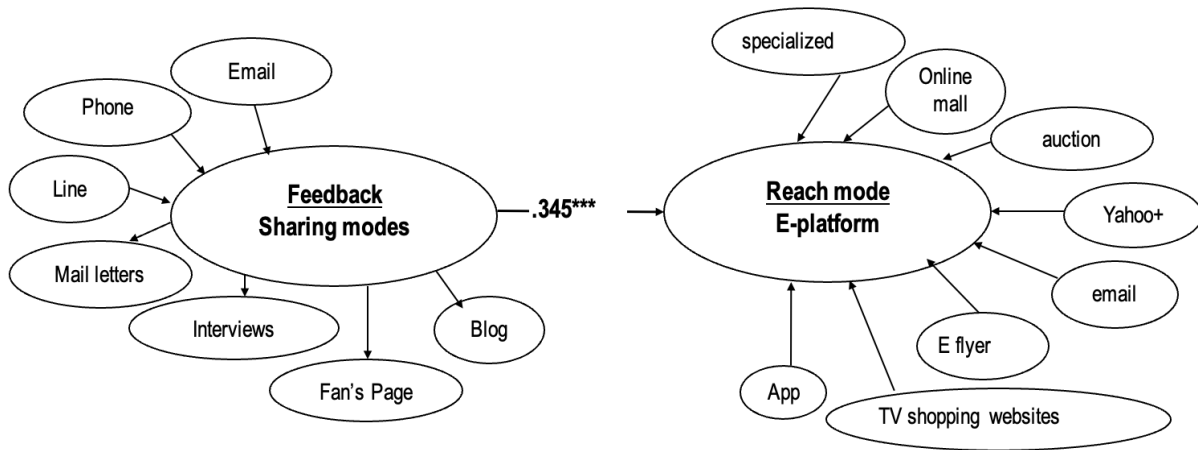


Figure 5. Feedback to reach mode

Note1. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

2. Consumption to feedback with Wilk's (.724), Chi-SQ (105.497), DF (56.0), Sig. (.000)

Figure 5 shows the results of the college students' feedback behaviors relating to their reach mode. In a linear relation between feedback and reach variables, communication technology such as phones in feedback mode corresponding with Yahoo+, APPs, and TV shopping media in reach mode have shown significant positive covariance.

5. DISCUSSION

Chaffey and Smith (2017) define internet marketing as 'Achieving marketing objectives through the use of electronic communication technology.' Nowadays, college students are the leading online shoppers (Hu et al., 2009; Kuswanto et al., 2019) because most are immersed and skillful

at operating electronic communication devices. Accordingly, the current study explored how college students' self-determined behaviors of autonomously using cutting-edge interfaces are driven by individuals' extrinsic or intrinsic motivations toward online shopping. Ettis (2017) examined the effect of website background colors determined by online business entities on the flow achievement and online shoppers' reactions based on the Stimulus–Organism–Response model and concept of optimal-flow experience. Research on the perceived aesthetics of webpages has received plenty of attention, yet the other online store atmospheric cues associated with online shoppers' behaviors need closer and more widely examined. The current study aligns with the calling of the previous research, first investigating the outside-in loop driven by online shoppers' extrinsic motivation. The website design attributes of an online store influence customers' perceived benefits (user-friendly, aesthetics, informative) to determine if they are willing to reach it (Rashwan *et al.*, 2019). We found the positively significant relationships between reach (to the online stores) and conversion keys (promotional information/payment options). Then we linked them to the shoppers' consumption behaviors (close a deal). Because online communication strategy connects electronic advertisement to customers' purchase behaviors, it has been seen as an integral process (Bagga & Bhatt, 2013; Purwanto, 2022). Second, under online shoppers' intrinsic motivation, the inside-out loop of consumption to feedback (eWOM, Chu & Kim, 2011; Rosario *et al.*, 2020) and then to reach the same online stores were examined to show significantly positive association (Al-Adwan *et al.*, 2022). Prior studies (e.g., Hidayat & Hidayat, 2017) argued that customers' perceived website quality affects online shoppers' purchase decisions; therefore, how online marketers build up an ideal online store environment matters (Caniëls *et al.*, 2015). The current study contributes to the practical domain knowledge in several ways. First, by self-determined perspective (Zhao & Wu, 2020; Zilka, 2018), we established and investigated a loop of essential stages of customers' online shopping behaviors. The findings suggested that online shoppers' extrinsic perception of (reach) easiness of accessibility is associated with the usage of (conversion keys) promotional strategy and payment media and security. Furthermore, the shoppers' consumption intrinsically influences their eWOM (Al-Adwan *et al.*, 2022), which links to their re-access the specific online stores. Second, when online marketers design their marketing portfolios, they should pay attention to online shoppers' modes of information searches and usage of interactive online multimedia via auctions platform and Yahoo+ media. In addition, e-coupons, premium

strategies, and multiple payment media tied in with sales promotion can facilitate online customers to place orders, especially for using i-bon to pay due to the high density of convenience stores in Taiwan. With these advantages, online marketers can target specific promotional sales for college students and adopt the i-bon of convenience stores platform as a significant payment media. Furthermore, commercial promotions tie in with coupon and premium strategies shown craved by college students in Taiwan.

Third, through practical conversion keys (promotional strategies and payment media), online marketers can encourage online shoppers to place orders and then facilitate the customers' autonomous eWOM (Al-Adwan *et al.*, 2022). We found that college students use phone calls as the primary media to spread their word of mouth. The college students were likely to share their experiences of online purchases and after-sales service from specific online stores with people they trust (Sabar, 2022). Such exchange of peer opinions on specific online stores can be regarded as the influential effect of word of mouth, and Yahoo+, APPs of online stores, and TV shopping media were major portals for college students to reach online stores.

6. CONCLUSION

Nowadays, sustainable online-shopping markets exist because these e-platform services have been well established to provide consumers with service interfaces and communication networks. Basing on self-determination theory (SDT) in consumption, our research progressed via situation simulation to analyze college students' outside-inside motivation perspectives on marketing portfolios in order to distinctly understand young people's cognition and interaction patterns within online business websites. According to our findings, we suggest that online businesses should pay attention to information searches, and analyze consumer comments on online multimedia, especially via auction platforms and Yahoo+ media for understanding consumer opinions. To trigger practical actions of placing orders, business can apply coupon and premium strategies to bundle with sales promotion to real purchasing, because commercial commodity promotions tie in with coupon and premium strategies so craved among college students in Taiwan. For facilitating the effectiveness of payment, businesses can create multiple payment channels by cooperation with banks, telecommunication companies, and convenience stores for various transactions, especially due to the high density of convenience stores (e.g. 7-11, Family Mart, etc.) in Taiwan. With these advantages, consumption product businesses can use i-bon

platforms and telecommunication payment options for transaction purposes. For feedback, potential consumers use phones as the primary option for communication media. Additionally, college students prefer to converse and build relationships of trust when communicating with others in direct interaction to share their perceptions of after-sales service and comments on E-platforms (e.g. social media, communication apps, or online shopping websites). For this age, online shopping websites play a particularly significant role for providing and assisting businesses to improve, operate, and progress in sophisticated market portfolio strategies and circumstances.

The current study has some limitations and suggestions for future studies. First, we only invited college students as our data informants without having other primary data sources to decrease standard method variance. Second, we only conducted a cross-sectional investigation which caused the limitation in interpreting the causal relationships among all research variables. Therefore, we suggest a further study using longitudinal data collection to probe into the reach-retention-conversion and purchase loop. In addition, the theoretical framework can be extended to observe new consumer journeys, how their journey is influenced by individual's emotions, and how different website portals lead to a trip. Regarding customers' online feedback, it would be interesting to consider issues about branding and customers' feedback rewards.

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