Analyzing the Omni-Channel Shopper Journey Configuration of Generations Y and Z

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ABSTRACT

Omni-channel retailing has been an essential issue to enterprises. This research applies goal theory to Engel-Kollat-Blackwell model in the omni-channel context and adapts the concept of Harris, Riley, and Hand to shopper journey configurations, including search, evaluation, and purchase of the decision-making process. This study selected iPhone as the product and collected 179 participants of Gen Y and 126 participants of Gen Z to analyze the shopper journey. The results indicated Gen Y replied on online review after searching and made their own judgement and preferred store purchase. Gen Z either replied on online review or directly made their own judgement after searching and preferred store purchase. Both generations utilized all types of searches and referred to online reviews of evaluation process and purchased at the store. The findings also benefit companies’ management of profitable omni-channel strategies.

KEYWORDS
Engel-Kollat-Blackwell Model, Generation Y, Generation Z, Goal Theory, Markov Chain Switching Model, Omnichannel

INTRODUCTION

Global digitalization has changed consumer shopping habits and patterns. The concept of omni-channel integrates virtual and physical channels with seamless customer experience by the catalyst of online to offline (O2O). The integration of online and offline services allows consumers to easily select channels and satisfy personal needs to create various consumer shopping experience (Gao & Su, 2016). Omni-channel context has been investigated via marketing theories to understand how customer touchpoints impact consumer engagement (Payne et al., 2017). Holistic shopping experience is crucial in the retail industry and omni-channel retail will improve operational productivity (von Briel, 2018). Shopping motivation and behavior of shopper’s journey configuration can be optimized by taking advantage of multiple channels. The report from Forbes (Morgan, 2019) showed 67% of Generation Z expected strong omni-channel experiences and preferred to purchase in store instead of online. The report of CCV in 2020 also indicated that 43% of Gen Y and Z more likely shop mainly in-store than other generations. Hence, understanding shopping behavior and journey of generational difference is essential to firms to generate effective long-term omni-channel strategy.

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Shopping behavior indicates the entwined constructs of shopping motivation and shopping orientation (Westbrook and Black, 1985). While motivation empowers behavior, goals determine the direction of behavior and convert motivation into specific action (Elliot, 2006). Shopping motivation may influence the perception of channel attribute and subsequent behavior in a multichannel context (Harris et al., 2018). While existing omni-channel research has focused on channel selection (Chocarro et al., 2013; Park & Lee, 2017), strategies of retailing channels (Du et al., 2018), service blueprint development (Ryu, Lim, & Kim, 2019), and consumer characteristics (Bilgicer et al., 2015), a few studies have investigated the shoppers’ journey from integrated channels on shopping behavior (Barwitz & Maas, 2018) and generational difference. Hence, it is crucial to understand generational shopper journey configurations in the omni-channel retailing environment.

This study will apply goal theory to Engel-Kollat-Blackwell (EKB) model based on the concept of shopper journey (Harris et al., 2018) in the omni-channel context. By applying goal theory, shopper journey relates to different level of goals and the configuration can understand shopping motivation. Moreover, Markov chain switching model will be used to analyze the shopper journey configuration and predict the transition of states for Gen Y and Z. This research will select electronic appliance in the purchasing process to discover the shopper’s journey configuration of Gen Y and Z. Hence, we propose the following research objectives: (1) proposing the manifestation of shopper journey configuration by integrating the goal theory by EKB model in the omni-channel context and (2) comparing the omni-channel shopper’s journey configuration for Gen Y and Z. The rest of this paper is structured as follows. The theoretical background of goal theory, EKB model, and related literature are furnished. The rationale of research method is explained by the proposed model, followed by results, discussion of major findings, conclusion, and implications.

THEORETICAL BACKGROUND AND LITERATURE REVIEW

Goal Theory

Goal theory (Pervin, 1983) explains behavior as the positive or negative response to stimuli. Goals are a practical surrogate for a concept while the nature of motivation is not fully understood (Covington, 2000). Goals are the most informative basis for understanding internal behavior. A goal may be attained by multiple means (equi-finality) and any one mean may attain multiple goals (multi-finality) (Harris et al., 2018). As individual may pursue multiple goals, researchers proposed a hierarchy that indicates higher level goals are drove and shaped by lower-level goals (Pieters et al., 1995). At the highest level of goals consist of over-arching norms for behavior, while the lowest level of goals drives specific behavior. That is, highest level goals act standards for behavior, intermediate level goals indicate specific acts, and lowest level goals present operations. Goal theory offers a theoretical viewpoint to examine shopping behavior in the omni-channel context. Higher order goals (why), intermediate goals (what), and lower order goals (how) represent ‘I want to buy’, ‘I need to buy’, and ‘I will buy’. Goal theory has been used to examine actions and achievement in the context of education (Blumenfeld, 1992), customer experience (Puccinelli et al., 2009), consumer behavior (Kopetz et al., 2012), marketing promotions (Lee & Ariely, 2006), and unplanned buying behavior (Bell et al., 2011). In this research, we apply goal theory to three stages of Engel-Kollat-Blackwell (EKB) model in the omni-channel context, which are information search (why), evaluation of alternatives (what), and purchase (how).

Omni-Channel

With the integration of virtual and physical channels, consumers can seamlessly shop across different channels (Juaneda-Ayensa et al., 2016). Various channels resulted in different selections in terms of internal and external motivation (Frasquet et al., 2015) and demographics such as age and gender (Park & Lee, 2017). Existing literature showed that consumer behavior is related to channels (Table
1); for example, impetuous shoppers tended to use mobile devices and online shopping channels (Rodríguez-Torrico et al., 2017) and social network may influence impetuous behavior for online and offline channels (Aragoncillo & Orus, 2018). Hult et al. (2019) also discovered that customer expectation affected offline shopping satisfaction and perceived value (price) affected online shopping satisfaction. Quality of channel integration (Gao & Huang, 2021), customer experience in channel integration (Gao et al., 2021), and consumer experience in omni-channel retailing (Hsia et al., 2020) were also examined in the omni-channel context.

Some literature also investigated the influence of channels from the retailer perspective; for example, optimal online selling models and pricing decisions of O2O tourism supply chain may be different (He et al., 2019), the optimal and profitable channel were based on pricing and discount strategy of online, offline, and price, coupon, and store service under various omni-channel retailing models (Li et al., 2022). In Table 1, the existing literature focused on channel selection, consumer behavior, loyalty, and channel strategy. This study will take into account the perspectives of channel selection and consumer behavior based on O2O concept.

**Table 1. Comparison of omni-channel literature**

<table>
<thead>
<tr>
<th>Literature</th>
<th>Consumer Perspective</th>
<th>Retailer Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Channel Selection</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>Frasquet, Mollá &amp; Ruiz (2015)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Juaneda-Ayensa, Mosquera &amp; Sierra Murillo (2016)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Park &amp; Lee (2017)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rodríguez-Torrico, Cabezudo &amp; San-Martín (2017)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Aragoncillo &amp; Orus (2018)</td>
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<tr>
<td>Hult, Sharma, Morgeson &amp; Zhang (2018)</td>
<td></td>
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<tr>
<td>Hsia, Wu, Xu, Li, Peng, &amp; Robinson (2020)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Gao &amp; Huang (2021)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Gao, Fan, Li, &amp; Wang (2021)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Li, Wang, Yang, &amp; Jin (2022)</td>
<td></td>
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</tr>
<tr>
<td>This research</td>
<td>✓</td>
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**Engel-Kollat-Blackwell Model**

The EKB model, which was proposed by Engle, Kollat & Blackwell in 1978, describes the continuous process of purchasing behavior (Cassill & Drake, 1987). The EKB model enfolds five stages: need recognition, information search, alternative evaluation, purchase decision, and post-purchase evaluation (Darley, Blankson, and Luethge, 2010). EKB model mainly focuses on the consumer decision making process. The needs can be triggered by internal stimuli and search information to learn about intended purchase. Source information includes advertisement, reviews, people, or public sources. When the required information is in hand, consumers evaluate alternatives and make the decision. Finally, the personal relationship is engaged in the post-purchase decision stage. Existing literature can be separated into three constructs: factors, consumer behavior, and prediction (Table 2). Factors such as the difference between ideal and actual situations affected prior-purchase according to cognitive
dissonance theory (Paul, 2013), and online channel, service, quality influenced satisfaction and online decision process (Wen et al., 2014), information seeking behavior (Park & Cho, 2012), social decision making in travel of Gen Z (Dimitriou & AbouElgheit, 2019), and fashion consumer decisions of Gen X and Y in retail sector (Nash, 2019).

Researchers also investigated decision processes of EKB model in different contexts. Gómez-Díaz (2016) discovered non-planned shopping behavior occurred in online channels and online information played an important role for decision process. EKB model also can be used for prediction; for example, predicting the purchase intention of luxury products on private sale sites (Martinez & Kim, 2012). Today, fast-growing technology and multiple channels allow consumers to have more contact points to interact with retailers (Verhoef et al., 2015). A shopper’s journey has been widely used in service management and design and has become popular in marketing (Rawson et al., 2013; Edelman & Singer, 2015). This journey involves all activities related to purchase and contacts through multiple channels from a stimulus at the beginning to post-purchase behavior (Harris et al., 2018) and can match to three stages of the decision process in the EKB model, namely information search, alternative evaluation, and purchase decision. Hence, this study will consider three constructs by integrating shoppers’ journey and the EKB model.

### Table 2. Comparison of EKB literature

<table>
<thead>
<tr>
<th>Literature</th>
<th>Construct Factors</th>
<th>Consumer Behavior</th>
<th>Prediction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martinez &amp; Kim (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>(Park &amp; Cho, 2012)</td>
<td>✓</td>
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<td>Paul (2013)</td>
<td>✓</td>
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<td>Wen, R. Prybutok, Blankson &amp; Fang (2014)</td>
<td>✓</td>
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<td>Gómez-Díaz (2016)</td>
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<td>Dimitriou &amp; AbouElgheit (2019)</td>
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<td>Nash (2019)</td>
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<td>This research</td>
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### RESEARCH METHOD

#### The Conceptual Model

This study applies goal theory to EKB model for modified shopper journey in the omni-channel context. Harris et al. (2018) discovered four channels (physical, virtual, telephone, and catalog) but we only consider online and offline channels because most consumers use two major channels to shop. Figure 1 shows the concepts among goal theory, EKB model, and specify states of shopper journey. According to goal theory, goals can be separated into high-level, intermediate level, and low-level. High-level goal is abstract and relates to information search of EKB model. Store search, mobile search and PC-based search are major states for information search according to the characteristics of Gen Y and Z. Intermediate goal is important that may turn abstract high-level goal into specific low-level goal, which relates to evaluation of alternatives of EKB model. This study includes online review and self-evaluation are the states of evaluating the alternatives. Word of mouth from families
and friends as well as online reviews are the states that consumers may check additional information or knowledge under evaluation process. Low-level goal is clear and specific, which relates to purchase of EKB model. Store purchase, mobile purchase for delivery, PC-based purchase for delivery, and click & collect delivery are the states of purchase. To simplify the matching states in the Markov chain switching model, we used A1 for mobile search, A2 for store search, and A3 for PC-based search, B1 for word of mouth, B2 for online review, B3 for social media, B4 for self-evaluation, C1 for mobile purchase for delivery, C2 for PC-based purchase for delivery, C3 for store purchase, and C4 for click and collect.

Figure 1. The conceptual model of shopper’s journey

Markov Chain Switching Model

State transition modeling is an intuitive and flexible approach for prediction. The popular methods for state transition include Markov chain model, finite state machine, and automata theory. The feature of Markov chain switching model enables applications to predict customer behavior in marketing area, such as predicting level of retail resilience (Rajesh et al., 2021), estimating online customer repurchase motivation (Li et al., 2019), analyzing variance for customer equity (Matsuoka, 2021), and inferring stages of business-to-business buying journey (Marvasti et al., 2021). The concept of Markov chain specifies that future state depends on previous state and the chain presents a long-run steady-state level. In a Markov chain system, consider a sequence of random variables \( X_0, X_1, \ldots \), and each random variable will be assigned a possible value from \( \{0, 1, 2, \ldots, i, \ldots, M\} \), which are referred to as states. For example, when the system is in state \( i \) at time \( t \), we present \( X_t = i \). In addition, given the system is currently in state \( i \), following the rules in Markov chains, the system will next be in state \( j \) with a probability \( P_{ij} \). Mathematically,

\[
P\left(X_{t+1} = j | X_t = i, X_{t-1} = i_{t-1}, X_{t-2} = i_{t-2}, \ldots, X_1 = i_1, X_0 = i_0\right) = P_{ij},
\]

where \( i_0, \ldots, i_{t-1}, i, j = 0, 1, 2, \ldots, i, \ldots, M \). Eq. (1) is called the transition probability that the state in time \( t + 1 \) is only affected by the state in time \( t \), not by the previous states from time 0 to \( t - 1 \) (Gagniuc, 2017). Simply put, Eq. (1) can be written as

\[
P\left(X_{t+1} = j | X_t = i\right) = P_{ij}
\]
where \( P_{ij} \geq 0 \) and \( \sum_{j=0}^{M} P_{ij} = 1 \) for \( i = 0, 1, 2, \ldots, M \). Further, we can present all the transition probabilities \( P_{ij} \) by using the following matrix:

\[
\begin{bmatrix}
    P_{00} & P_{01} & \cdots & P_{0M} \\
    P_{10} & P_{11} & \cdots & P_{1M} \\
    \vdots & \vdots & \ddots & \vdots \\
    P_{M0} & P_{M1} & \cdots & P_{MM}
\end{bmatrix}.
\] (3)

We now address the n-step transition probability, defined as \( P_{ij}^{(n)} = P(X_{t+n} = j | X_{t} = i) \), which can be transformed as follows:

\[
P_{ij}^{(n)} = P(X_{t+n} = j | X_{t} = i) = \sum_{k=0}^{M} P(X_{t+n} = j, X_{t+r} = k | X_{t} = i)
\]

\[
= \sum_{k=0}^{M} \frac{P(X_{t+n} = j, X_{t+r} = k, X_{t} = i)}{P(X_{t} = i)}
\]

\[
= \sum_{k=0}^{M} \frac{P(X_{t+n} = j, X_{t+r} = k, X_{t} = i)}{P(X_{t+r} = k, X_{t} = i)} \cdot \frac{P(X_{t+r} = k, X_{t} = i)}{P(X_{t} = i)}
\]

\[
= \sum_{k=0}^{M} P(X_{t+n} = j | X_{t+r} = k, X_{t} = i) \cdot P(X_{t+r} = k | X_{t} = i) = \sum_{k=0}^{M} P_{kj}^{(n-r)} \cdot P_{ik}^{(r)}
\] (4)

where \( 1 \leq r \leq n - 1 \). In Eq. (4), we let \( r = n - 1 \) and acquire

\[
P_{ij}^{(n)} = \sum_{k=0}^{M} P_{kj} \cdot P_{ik}^{(n-1)}
\] (5)

From the definition for an ergodic Markov chains where \( P_{ij}^{(n)} \geq 0 \) for all \( i, j = 0, 1, \ldots, M \), \( P_{ij}^{(n)} \) will converge to a value \( \Pi_j \) which relies on \( j \) only (not the initial state \( i \)). Suppose \( n \rightarrow \infty \), we can present Eq. (5) as

\[
\Pi_j = \sum_{k=0}^{M} P_{kj} \cdot \Pi_k
\] (6)

With Eq. (6), we can display all \( \Pi_j \), where \( 0, 1, \ldots, M \), via the following equation system:
Further, since

\[
\sum_{k=0}^{M} \Pi_j^{(k)} = 1,
\]

\[
\sum_{k=0}^{M} \Pi_j = 1. \tag{8}
\]

Eqs. (7) and (8) are used to compute the value of each \( \Pi_j \).

This research will apply Markov chain switching model to the proposed shopper journey. EKB model divides shopper journey into three sequential stages (information search, evaluation, and purchase). We propose three states for information search (mobile, PC-based, and store search), four states for alternative evaluation (online review, word-of-mouth, social media, and self-evaluation), and four states for purchase (mobile purchase, store purchase, PC-based purchase, and click & collect). The states represent the sequential shopper’s journey and probabilities will be estimated by mathematical model.

RESULTS

Data Collection

This research expects to target Gen Y and Z for the journey of purchasing iPhone. According to SJC Insights (2018), Gen Y (Millennials) favor physical retail and 50% prefer to trial products at store when considering a purchase. Word of mouth greatly influences their purchase decisions. Gen Z prefers seamless online and offline shopping journeys and 81% favors physical stores according to (Wu, 2019). Gen Z consumers have high expectations for retail essentials and reply on social media. In other words, Gen Y and Z prefer shop online behavior but shopped mostly at offline stores in the omni-channel context. Hence, understanding the goals of Gen Y and Z’s shopper journey is the main objective of this research. According to the report from Edison Trends (2019) also identified second and third top selling product categories were health & beauty (12%) and electronics & accessories (11%) for Amazon in 2018. In Taiwan, the third largest e-commerce company (www.momoshop.com.tw) reported that electronics was the top one selling product categories in 2018. Electronic appliance is also one of the top categories to shop for both Gen Y and Z. Hence, this research selected Apple iPhone as the target product to obtain the shopper journey and analyze the online and offline shopping behavior.

This research conducted an online semi-structured questionnaire to collect data through judgmental sampling method. We designed the semi-structured questionnaire based on three stages of EKB model and literature in terms of three sections: shopper’s journey (search, evaluation of alternatives, and purchase), previous shopping experience, and personal information. The concept is to offer possible options for participants guide to select when purchasing iPhone in the shopping journey. In the first section, the first question is related to information search, which is “what is your next step when you identified the demand? Mobile search, store search or PC-based search?” The second question is related to evaluation of alternatives: “please specify the sequence of repeated behavior after searching, including refer to (1) online review, (2) social media, (3) word of mouth...
(friends and families), and (4) self-evaluation” The third question is “what is the next step after evaluation?”, including (1) store purchase, (2) mobile purchase, (3) PC-based purchase, and (4) click & collect”. Participants were requested to select the option of each stage by sequence; for example, the type of information search (e.g., mobile search), method for evaluation (e.g., online review), and location for purchase (e.g., store purchase).

In the second section, we inquired previous shopping experience, frequency of online shopping, and reasons for online or offline shopping. The third section consists of personal information, including gender, age, educational background, and occupation. Finally, the participants will provide the shopping journeys when purchasing their iPhones because the variance of Apple product (e.g., price, channel, and product features) is low around the world. The collected data was converted to states for Markov chain switching model. For example, mobile search, PC-based search, and mobile search will be converted to the notations to represent states such as A1, A2, and A3 in the information search stage. The states in evaluation and purchase stages were also converted to designated notations (e.g., B1 to B4 and C1 to C4).

Demographics
This study collected 305 participants (iPhone users) between April and May in 2020, including 179 participants of Gen Y and 126 participants of Gen Z. The average age of Gen Y was 30 years and Gen Z was 23 years. Gen Y consists of 44% males and 56% females and Gen Z consists of 41% males and 59% females. 72% of Gen Y purchased current iPhone via direct selling store while Gen Z has 56% of participants. The educational background of Gen Y includes 58% of bachelor degree, 39% of master degree, 1% of Ph.D., and 2% of high school and below. Gen Z includes 81% of bachelor degree, 17% of master degree, 2% of high school and below. Top five categories of occupation for Gen Y are IT/communication (15%), manufacturing (15%), government (11%), retailing (9%), service (9%), and finance/insurance (8%). Top five categories of occupation for Gen Z are student (64%), IT/communication (10%), service (6%), finance/insurance (5%), and communication (3%). All participants had online shopping experience before.

Findings

Generation Y

Figure 2 shows the transition matrix of Gen Y. The results of Markov chain switching model showed the convergence of state at 16 switching time period (t=16). The convergent probability (A1, A2, A3, B1, B2, B3, B4, C1, C2, C3, C4) is (0, 0, 0, 0, 0, 0, 0, 0.264, 0.164, 0.398, 0.174). In other words, Gen Y consumers finally purchase via mobile (26.4%), PC (16.4%), store (39.8%), and click and collect (17.4%). Store purchase is the major channel for Gen Y which is accordance with the findings of existing research (Donnelly & Scaff, 2013). In addition, we assume the initial probabilities of three types of search as (1, 0, 0) for mobile, (0, 1, 0) for store, and (0, 0, 1) for PC-based. The outcomes showed that all types of searches will transfer to the state of online review (early evaluation), while mobile search has 39.7%, store search has 25%, and PC-based search has 40% (as shown in Figure 3).

When high-level goal has been fulfilled (information search), it moves intermediate goal which is early evaluation. Existing literature also indicated that online reviews significantly influence purchase intention (Yusuf et al., 2018). Millennial is the generation to frequently use Internet compared to generation X but they are mostly risk averse (Schroeder, 2019). Next, the state early evaluation moves to later evaluation of intermediate goal, which is self-evaluation (18.2% for mobile search, 12.7% for store search, and 17.8% for PC-based search). Self-evaluation includes synthesizing the searched information and online word-of-mouth to make own judgement. Interestingly, Gen Y prefers to purchase at the store regardless of different type of search, which moves to the final state of low-level goal. 39.3% of store search leads to store purchase, 27.2% of mobile search leads to store purchase, and 29.2% of PC-based search leads to store purchase. The evidence also confirmed
that participants in all shopper journeys for millennials preferred to buy products in physical stores (Donnelly & Scaff, 2013). In other words, millennials used different types of searching method but still preferred to purchase at the store that takes advantages of omni-channels for concretizing high-level goal to low-level goal.

**Figure 2. Transition matrix of Gen Y**

![Transition matrix of Gen Y](image)

**Figure 3. Gen Y shopper journeys**

![Gen Y shopper journeys](image)

**Generation Z**

Figure 4 shows the transition matrix of Gen Z. The results of Markov chain switching model showed the convergence of state at 16 switching time period \((t=16)\). The convergent probability \((A1, A2, A3, B1, B2, B3, B4, C1, C2, C3, C4)\) is \((0, 0, 0, 0, 0, 0, 0.175, 0.233)\). That is, Gen Z consumers finally purchase via mobile \((17.5\%)\), PC \((13.5\%)\), store \((45.7\%)\), and click and collect \((23.3\%)\). Store purchase is also the major channel for Gen Z, while A.T. Kearney reported 81% of Gen Z prefers to shop in stores and 73% like to discover new products in stores (Wu, 2019). Moreover, we assume the initial probabilities of three types of search as \((1, 0, 0)\) for mobile, \((0, 1, 0)\) for store, and
(0, 0, 1) for PC-based. The outcomes showed that mobile and PC-based search will transfer to the state of online review that is considered as early evaluation (mobile search is 35.7% and PC-based search is 38.8%) as shown in Figure 5. Store search will transfer to self-evaluation directly (26.9%) which belongs to evaluation.

Digitized searching methods enabled Gen Z to evaluate the product based on online review first and assess it based on own judgement later. Gen Z who used digitized searching methods have two steps for product evaluation; in other words, spending more time on evaluation. Particularly, smart technologies have a significant influence on generation Z consumers’ experiences (Priporas et al., 2017). If the Gen Z used store search, 26.9% of them will transfer to merely self-evaluation in the evaluating process. This matches to the fact that 69% of Gen Z takes fashion advice from store associates for own judgement when shopping in the stores, according to the report from retailzipline.com. Finally, while 58% of Gen Z prefers a physical shopping experience (report from retailzipline.com), our results showed all types of search finally stop at store purchase (30.6% for mobile search,
30.5% for PC-based search, and 37.4% for store search). This research discovered that Gen Z show use store search spent less time on intermediate goal in the journey.

**DISCUSSION**

The strategies for integrated shopping experience is crucial when consumers acquire information in one channel (e.g., online review) but make actual purchase in another (e.g., physical store) (Verhoef et al., 2007). Our results also indicated that consumers use online or offline search but prefer store purchase in the omni-channel context. When purchasing iPhone, consumers didn’t specifically use a type of searching channel but mostly referred to online reviews and self-evaluation. The journey quickly switched to evaluation (intermediate goal) after searching (abstract goal) and lead to store purchase (concrete goal). We infer Apple users have own judgement based on past using experience which may lead to quick decision to purchase. Our results also indicated that consumers use online or offline search but prefer store purchase in the omni-channel context. When purchasing iPhone, consumers didn’t specifically use a type of searching channel but mostly referred to online reviews and self-evaluation. The journey quickly switched to evaluation (intermediate goal) after searching (abstract goal) and lead to store purchase (concrete goal). We infer Apple users have own judgement based on past using experience which may lead to quick decision to purchase. Our samples showed Gen Y and Z have similar features to omni-channel shoppers. Gen Y rely on multiple forms of information and social media (CSA, 2017) and consider the views of peers are reliable (Moreno et al., 2017). They prefer physical store to purchase after touching and experiencing products (Donnelly & Scaff, 2013). Gen Z’s retail shopping behaviors were significantly influenced by servicescape, which shows the physical store is still important (Tunsakul, 2018). Generation Z customers visit different retailer types with different shopping motivations (Yozgat & Ariker, 2018). Omni-channel shoppers are valuable and loyal to retailers (Sopadjieva et al., 2017) and 40% of millennial cross-channel shoppers had researched apparel online before buying in store (Drenik, 2019). The shopper’s journeys of Gen Y and Z are similar and explain young generations utilized multiple devices to search; particularly, online review is important to them before own judgement and final purchase. Our results confirmed Gen Y and Z preferred store purchase regardless of searching channel.

This research presents omni-channel shopper journey configuration via consumer-centric perspective that can help companies devise seamless omni-channel shopping experience. Understanding the goals from abstract to concrete also leads firms to efficiently reallocate the limited resources on consumers. This research can supplement the framework of Valentini et al. (2020) that motivation may influence channel promotion and results in consumption. Factors that influence omni-channel integration and channel service configuration has been investigated by researchers (Hossain et al., 2020; Lee et al., 2019; Shen et al., 2018). We can contribute to understand the holistic shopping experience of Gen Y and Z from abstract goal of search, intermediate goal of evaluation, to concrete goal of purchase. The findings of omni-channel shopper journey configuration of iPhone for two generations may add value to integrated omni-channel shopping experience, which guides companies to cross-channel conversation rate to understand omni-channel shoppers (Barker, 2018).

**IMPLICATIONS**

**Theoretical Implications**

This research furnishes a consumer-centric model to explore the shopper journey configuration for Gen Y and Z. The focus of existing literature mostly examined impulsiveness and need for touch influence used device (Rodríguez-Torrico et al., 2017), technology acceptance (Juaneda-Ayensa et al., 2016) and customer empowerment (Zhang et al., 2018) on purchase intention, and unifying customer experience (Larke et al., 2018). Our findings depict online review and self-evaluation are essential for evaluating process after online or offline search for both generations. In addition, shoppers purchase at store by the end of journey for Gen Y and Z. The report from Retail-Assist (Murphy, 2019) showed 82.6% of Gen Y and 75.3% of Gen Z shopped across more than one channel which supports our findings. Moreover, store purchase is the preferred channel to shop for both Gen Y and Z in buying electronic appliance context; however, 54.7% of Gen Y preferred to shop online generally. Our result
can contribute to generational research on omni-channel marketing strategy. By configuring shopper journey for both generations, this study provides a different viewpoint to model shopper journey and trace the transition of consumer behavior in the omni-channel context.

Managerial Implications

The findings can help retailers apply effective omni-channel strategies to information (search) and fulfillment (purchase) via multiple channels (Bell et al., 2014); particularly, target generation Y and Z. The shopper journey showed Gen Y and Gen Z may have similar path from search, evaluation, to purchase by applying to the context of electronic appliance. The findings indicated that firms can also enhance seamless customer experience by understanding the generational difference of shopper journey configurations. Chaney et al. (2017) identified the important agenda for generational marketing such as understanding details of consumption, word-of-mouth, satisfaction, and loyalty. Firms may reinforce online word-of-mouth in consumer evaluation process to attract Gen Y (reply reviews more than Gen Z) to guide to final purchase. When facing digital pioneer (Gen Y) and digital natives (Gen Z), companies can integrate all channels for convenient purchasing process in the omni-channel context. Our findings also can link to long-term omni-channel strategy by managing ROI and customer relationship of different channels (Bell et al., 2014). Hence, our findings can support companies to allocate budgets on obtaining positive feedback of online review and create unique store experience for purchase for both generations.

CONCLUSION

This research applied goal theory to EKB model and analyzed omni-channel shopper’s journey for Gen Y and Z. Goal theory explains the motivation from high-level goal, intermediate goal, to low-level goal and match to the decision process (information search, alternative evaluation, and purchase decision). We propose three types of search (mobile search, PC-based search, and store search) that guide shoppers to evaluate (word of mouth, social media, online review, and self-evaluation) and purchase (mobile purchase, PC-based purchase, store purchase, and click and collect) and converted to sequential states for Markov chain switching model. This study collected 305 participants for inquiring shopper journey configurations by purchasing iPhone, including 179 participants of Gen Y and 126 participants of Gen Z. The results showed all types of search eventually will guide shoppers to store purchase for Gen Y and Z. Moreover, online review is the most important alternative evaluation process (compared to word-of-mouth and social media) before self-evaluation for Gen Y. Gen Z participants may refer to online reviews from mobile and PC-based search but skip it to self-evaluation from store search in the journey. When the variance of product is low like electronic appliances, the states of shopper’s journey becomes stable and convergent. The analysis of Markov chain also showed Gen Y and Z have the similar features that converge at same time period (t=16) and the final step of purchase generally preferred to store purchase. Even Gen Y and Z prefer to utilize Internet as the media (e.g., online reviews) but they return to physical store for purchase finally. In summary, our research furnishes clues to companies to obtain and understand goal switching process in the shopper’s journey configuration. We expect the results can benefit to manage seamless customer experience and organize long-term omni-channel strategy.

LIMITATIONS AND FUTURE RESEARCH

This research has several limitations for future research such as examining journeys for different target products (e.g., cosmetics and books), increasing samples across generations for comparison (e.g., X, Y, and Z), and applying to real-time estimation of shopper journey. Shopper’s journey configuration is different from products and context. Future research can examine various categories of shopper journey configurations.
journey configuration in omni-channel retiling context. The characteristics of all generations can be used to supplement the explanation and understanding of generational gaps. In addition, future research may add more states in the decision making process by integrating other consumer decision making models. Alternative methods for stochastic Markov chain switching model can be used to examine the outcomes such as optimization algorithms (Dhiman, & Kumar, 2017, Dhiman, & Kumar, 2018; Kaur et al., 2020; Dhiman & Kaur, 2019), artificial intelligence (Chatterjee, 2021) and analytical methods (Vaishnav et al., 2021).
REFERENCES


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