

The role of electronic word of mouth (eWOM) and the marketing mix on women's purchasing intention of children's dietary supplements

Hani Al-Dmour and Sheeraz Al-Qawasmi

Department of Marketing, The University of Jordan, Amman, Jordan

Rand Al-Dmour

Department of Management Information System, The University of Jordan, Amman, Jordan, and

Eatedal Basheer Amin

Department of Marketing, The University of Jordan, Amman, Jordan

Abstract

Purpose – This study aims to examine and validate the role of electronic word of mouth (eWOM), a mediating factor between the marketing mix elements (product, price, place and promotion) and women's purchasing intention of children's dietary supplements in the Jordanian environment culture context.

Design/methodology/approach – The data of the research was collected through online and offline questionnaires using a convenience sample of 370 women who have children and live in Amman, the largest city in Jordan.

Findings – The findings showed a partial effect of the eWOM as mediating factor on the relationship between marketing mix elements and women's purchasing intention of children's dietary supplements. The findings also revealed significant positive effects of price and place as marketing mix elements on women's purchasing intention of children's dietary supplements, while the product and promotion elements were found insignificant.

Originality/value – This paper contributed to consumer buying behaviour theories by filling a gap in the literature regarding the role of eWOM as a mediating factor on the relationship between marketing mix elements and women's purchasing intention of children's dietary supplements in a developing country like Jordan for the first time.

Keywords Marketing mix, Electronic word of mouth, Purchase intention, Jordan, Pharmaceuticals, E.WOM

Paper type Research paper



Introduction

Nowadays, the increase in competition and growing customers' demand level bring more opportunities and challenges to pharmaceutical companies. Pharmaceutical companies aim to provide their customers with high value dietary products to improve their health and gain more profit. To achieve that and respond to current circumstances, they aim to introduce products with more competitive benefits to have the highest chance to be chosen upon all other competitors. Marketing experts have been researching and examining for many years how to affect consumers' purchase

decisions and how to gain an edge on other competitors to better tailor company experiences for customers and, of course, increase sales. One of the areas that have recently received attention is the impact of marketing mix on consumers' purchase decisions. A marketing mix strategy is created using the 4 Ps of marketing (product, price, place and promotion) (Al Badi, 2018). Previous studies have considered price as an essential variable, but other variables, such as product characteristics and quality, are crucial in customer purchasing decisions (Giovanis *et al.*, 2013). Also, location factors as channels of purchase distribution play a part in influencing consumer purchasing (Al-Dmour, 2008; Sulaiman and Masri, 2017; Elvinda *et al.*, 2019).

Moreover, in combination with sales' promotion strategies and other marketing mix tools, advertising can have a synergistic effect on attracting customers to purchase products. As many managers believe, promotion plays a significant role in increasing the awareness of a brand (Latif *et al.*, 2014). Rapid technological changes in this era allow targeting mass media to influence consumers' thinking through electronic word of mouth. eWOM can be found in virtual communities, such as forums, consumer reviews, blogs and social networks (Farzin and Fattahi, 2018), where cultural factors, such as gender, affect acceptance of the eWOM factor and using it (Nayab *et al.*, 2017). Pharmaceutical companies are concerned about children's health conditions, because they are the future leaders and their health is a worthy asset for human capital, so that nutrition is very important in maintaining their health and preventing serious diseases. According to the State of Food and Agriculture (SOFA) statistics, around 868 million (12.5%) people face malnutrition problems and children represent most of them. Here, the role of dietary supplements is vital. Dietary supplements are defined as products that contain dietary ingredients intended to supplement the diet. These dietary ingredients include vitamins, minerals, amino-acids, herbs or other botanical substances, such as enzymes, organ tissues, glandular materials, metabolites extracts or concentrates (FDA, 2006). The use of children's dietary supplements has expanded explosively during the past decades. Parents who use dietary supplements are more likely to have children who use them. Approximately one-third of infants, children and adolescents in the USA are reported to use dietary supplements (Bailey *et al.*, 2013). They use children's dietary supplements to improve overall health, prevent health problems and boost immunity.

In Jordan, the country's market growth is expanding with the rapid population growth, and the dietary supplements market now accounts for about 5% of the total pharmaceutical market sales. However, given the wide selection of nutritional supplements for children, many women in developing countries do not want to spend sufficient time and effort evaluating product information and comparing products before deciding which product to buy. They report wanting more guidance in their decision-making process when choosing a supplement and are often uncomfortable with their choices (Thomas, 2014). Studies that discussed these issues in the pharmaceutical marketing context are scarce and did not empirically deal with these issues in developing countries, such as Jordan. Therefore, this study intends to investigate the impact of marketing mix elements (product, price, place and promotion) upon women's purchase intention of children's dietary supplements through the mediating effect of eWOM in the pharmaceutical market. Furthermore, studies in developing countries showed that the improvement in women's power relative to men's were found strongly influence children's nutritional status (Smith *et al.*, 2003).

For many years, companies have debated the efficiency of marketing mix elements that have increased nowadays to become a small digital village due to social media. Social media

sites have become a marketing area that plays a significant role in marketing mix application, where companies can expand their marketing efforts to a broader range of customers (Shoenberger, 2018; Habash and Al-Dmour, 2020), and each customer affects others by electronic word of mouth. This study is seeking to answer the following questions:

- Q1. Do the marketing mix strategies of pharmaceutical companies (product, price, place and promotion) have any significant influence on women's buying intention of children's dietary supplements in the Jordanian business context? Which one of these marketing strategies (explained by; product, price, place and promotion) has a higher effect on women's buying intention of children's dietary supplements?
- Q2. Does eWOM play any significant role in the relationship between the marketing mix strategies (explained by product, price, place and promotion) and women's purchase intention of children's dietary supplements?

This study's findings are expected to be helpful and vital for pharmaceutical companies to understand how the use of a marketing mix influence women's purchase intention of children's dietary supplements via using positive eWOM in the Jordanian business context. The marketing mix is viewed as the key tool to help understand what the product or service can offer and how to plan for a successful product or service offering. The marketing mix is most commonly conducted through the 4 Ps of marketing: price, product, promotion and place. Companies need to consider all marketing mix dimensions and know how to adapt the product, price, place and promotion (Thabit and Raewf, 2018). By the compound, mix or combination, it is meant that the 4 Ps should have an adjusted and coordinated systematic approach to have an effective impact on convincing customers. So, all of them are connected and any defect in one element will reflect on the other elements. In other words, the right product should be provided at an affordable price accompanied by better distribution and promoted by appropriate communication techniques. All of the aforementioned elements act together in costumers' view (Rad and Akbari, 2014).

Theoretical background and literature review

Marketing mix: concepts and key elements

Scholars identify the marketing mix as controllable parameters that firms use to influence the consumer purchase process (Kotler and Keller, 2016). The concept of marketing mix is related to companies' activities that can be done to influence the supply and demand for a product or service. Broadly, the marketing mix is defined by Kotler and Keller (2016) as a model of marketing tools that are essential to the marketing industry that the company uses to achieve its objectives in the target market. Thus, McCarthy has condensed the marketing mix concept to the known 4 Ps of the product, price, promotion and place. In this research, the marketing mix can be defined as a model of 4 Ps: product, price, place and promotion. Product refers to the service or physical goods that the consumer is purchasing, including specifics of its kind, design, variety, packaging, features and quality. Price refers to monetary sum or the cost that any consumer could suppose that a product is worth and how much he/she is willing to pay. Place refers to an avenue that customers reach to buy goods or services either from stores or e-commerce platforms. The last P refers to the promotion, marketing or advertising of the product or service. The purpose of marketing mix is to continue updating companies' actions to affect consumer purchase decisions (Thabit and Raewf, 2018).

Literature review and hypotheses development

According to Schiffman and Joseph (2020), customers' purchase intention is the result of a customer subjective judgement after evaluating a service or a product. Also, it is argued that purchase intention is the customers' willingness to think of or consider a product or a service. Lim *et al.* (2016) explained that in the theory of reasoned action and planned behaviour theory. Beck and Ajzen (1991) suggested that intentions are presumed to be an indicator of the extent to which people are willing to approach a specific behaviour and how many attempts they are trying to perform a specific behaviour, future intention or a decision to repurchase (Bashir *et al.*, 2019). Gautam and Sharma (2017) explained that purchase intention refers to the likelihood of purchasing by customers. Thus, it can be concluded that customers' purchase intention is a customers' subjective judgement of a service or a product that would affect their purchasing behaviour (Asshidin *et al.*, 2016). Researchers have developed different frameworks of store marketing mix. For example, Phan, T. T. H., and Vu, P. A. (2015) suggest that key marketing elements in retailing include product, price, promotion and customer services, while Kotler and Keller (2016) argue for an integrative approach, indicating that store retailers' marketing decisions involve target market, product assortment, services provided by personnel, store atmosphere, price, promotion and place. This study particularly focuses on the most common marketing mix elements, namely, product, price, place (convenience) and promotion and their effect on buying intention via eWOM.

The influence of marketing mix on purchase intention. Customers' purchase intention is one of the major concerns for marketing managers' where its evaluation can serve as an indicator of customer satisfaction with a certain product or service which will lead to its sale (Pandey and Srivastava, 2017). Shabbir *et al.* (2010) defined buying intention as customers' awareness to propose buying a service or a product. In addition, Wang and Yang (2008) described it as the decision to take action related to show customers' behavior toward a service or a product. Marketing mix dimensions have been addressed in studies of several authors and settings. In the context of food retailing, a growing volume of studies revealed that conventional marketing mix elements, such as product's quality and packaging, price, store location and promotional tools, shape consumer buying behaviour (Phan and Vu, 2015). Such elements influence customer perceived value and purchasing decisions towards food products (Thabit and Raewf, 2018). According to Al-Dmour (2008), the impact of marketing mix dimensions was applied to residential flats' purchasing decisions. Also, Mwangi (2014) applied the influence of marketing mix on insecticides' consumer buying behaviour. Studies by Nayab *et al.* (2017), Mwangi (2014) and Kusumawati *et al.* (2014) found significant positive effects of marketing mix elements on purchase intention.

Most studies support marketing mix elements' effectiveness in consumers' purchase intentions (Mwangi, 2014), especially the price element (Kusumawati *et al.*, 2014). For instance, a study conducted by Nayab *et al.* (2017) provided a significant positive effect of marketing mix elements on customers' purchase intention toward using cosmetic products. According to Nugroho and Irena (2017), the marketing mix strategy can provide marketers with a specific action plan to target a specific market and win the target customers. In addition, a previous study about facial make-up confirmed a significant positive influence of marketing mix on consumer decision (Manafzadeh *et al.*, 2012; Azizpour *et al.*, 2016). Despite extensive research efforts, there is a paucity of knowledge relating to the impact of marketing mix elements on women's purchase intention of children's dietary supplements in emerging markets, especially in Jordan. Therefore, the following hypothesis was developed:

H01. The marketing mix elements (product, price, place and promotion) will have a significant effect on women's purchase intention of children's dietary supplements.

The role of electronic word of mouth on purchase intention. Researchers have investigated the effect of eWOM on purchase intention (Vahdati and Mousavi Nejad, 2016; Bebbler *et al.*, 2017; Sohaib *et al.*, 2018; Ismagilova *et al.*, 2019). Berger (2014) argued that eWOM is a significant predictor of purchase intention. In a recent study, Saleem and Ellahi (2017) confirmed eWOM to have a positive and significant effect on fashion products' purchase intention on social networking websites. eWOM is viewed as all informal types of communications linked to properties and usage of specific goods and services oriented to consumers through internet-based technology (Ismagilova *et al.*, 2019). In this research, eWOM can be defined as any positive or negative statement regarding a product, a service or a company shared via the internet by potential, actual or former customers, which became available to many people and institutions (Ahmad *et al.*, 2020).

Consumers have more benefitted from electronic word of mouth compared to traditional word of mouth. Electronic word of mouth has many benefits, such as accessibility to information, being easy and friendly to access, its controllable obtainability duration without the need to be in a physical place, spreading the information communication and its swiftness (Luo and Zhong, 2015; Serra Cantallops and Salvi, 2014; Mauri and Minazzi, 2013; Abuhashesh *et al.*, 2019). eWOM is the most powerful communication way to reach customers. The marketing mix elements (price, place, promotion and product) affect eWOM via enhancing customer expectations, customer satisfaction, customer loyalty, perceived quality and perceived value via providing them with available high-quality products and services and full information needed to enhance their awareness of the use of the product or service for a reasonable price (Cengiz and Yayla, 2007). Cengiz and Yayla (2007) found a significant positive effect of marketing mix elements on eWOM. Assessment and information that have been spread through eWOM allow consumers to help others decide to choose goods or services (Litvin *et al.*, 2008). Buyers significantly depend on consumers' views that are online before buying to reduce possible risks (Liu and Park, 2015). Luo and Zhong (2015) found eWOM to be unprejudiced and dependable on obtaining evidence. Moreover, after friends' recommendations, eWOM is the second most remarkable and dependable source of evidence that influences the buyers' decision-making process of various types of product and service sales (Fileri and McLeay, 2014). Although positive eWOM increases the probability of product and service purchasing, at the same time, negative eWOM decreases the probability of product purchasing (Luo and Zhong, 2015).

Moreover, previous studies conducted by Luo and Zhong (2015) and Litvin *et al.* (2008) discussed consumers' expectations, tendencies' formation and behaviour formed through eWOM, impacting their selections as feedback after use. According to Park *et al.* (2007), customers are profoundly affected by the high amount of recommendations and consumer assessments, explaining the number of consumers who have purchased the product or service, which accordingly excuses their conduct of getting the product or service. Fan and Miao (2012) mentioned that women are more concerned about eWOM credibility, which influences their acceptance and use of it in their purchase decisions, especially in high-involvement products. Studies by Fan and Miao (2012) and Nayab *et al.* (2017) found a significant positive effect of eWOM on purchase intention. In this research, eWOM has been examined as the mediating factor between marketing mix strategies and women's purchasing intention of children's dietary supplements. Therefore, the following hypotheses were developed:

- H02. eWOM will have a significant effect on women's purchase intention of children's dietary supplements.
- H03. eWOM, as a mediating factor, will have a significant effect on the relationship between marketing mix elements and women's purchase intention of children's dietary supplements.

Study methodology

Quantitative descriptive approach was used to collect and analyse the data to examine the impact of marketing mix strategies (product, price, place and promotion) on women's purchase intention of children's dietary supplements in the Jordanian market. Data was obtained using offline and online questionnaire from the key respondents. The target population of the study consists of all Jordanian women who have children and use social media. (Facebook, Twitter, . . .) The convenience sampling method was used to collect the required data from women who live in Amman, the largest city in Jordan, as this type of sampling was recommended by most previous studies on customers' buying behaviour (Abraham *et al.*, 2015; Alabbadi and Ashour, 2016; Carvalho *et al.*, 2016; Kevrekidis *et al.*, 2018 and Sardar, *et al.*, 2021). Thus, the use of convenience sampling in the current study agrees with the previous literature on customers' buying behaviour. A total of 370 women who have children and use social media were reached. Of the sample respondents, 50% were aged between 18 and 40 years old. 58.4% hold a bachelor's degree and 62% were unemployed. The study survey instrument was developed based on the adaptation of existing instruments, which were validated based on previous literature related to marketing mix strategies and consumers' purchase intention.

Table 1 describes how the hypotheses were operationalized and the corresponding references. Regarding the scales used in the current study, some variables are factual, such as respondents' demographic information such as education, employment and age, whereas other variables are perceptual (marketing mix strategies). The study dependent variable (i.e. the intention of buying children's dietary supplements) was measured using a five-point Likert scale adopted from Smaoui *et al.* (2016) and Hsu *et al.* (2017). The independent variables (marketing mix strategies) were also measured by using a five-point Likert scale adapted from Mwangi (2014). Moreover, the mediating variable was measured using the five-point Likert scale adopted from Siwalankerto (2017). To eliminate a potential problem associated with the questions, a pre-test questionnaire was conducted. The researchers in this study used the cognitive interviewing method. Furthermore, the researchers conducted interviews with academic professors and professional in marketing. This validity approach helped the researchers clarify the survey's face validity. Modifications were necessary to make sure that the items were appropriate for all participants. The final survey instrument included a screening question plus three main sections, which include questions measuring marketing mix strategies, eWOM and purchase intention of children's dietary supplements (Saunders *et al.*, 2009).

Descriptive analysis

The mean, standard deviation, normality and reliability were used to measure the degree of approval of sample responses on all the study-model dimensions. The descriptive statistics offered in Table 2 point to a positive disposition towards the items measured. It is also noted that there is a high degree of approval for the marketing mix in general, as the general mean average is 3.7361 and the standard deviation is 0.7855. Furthermore, after careful assessment using skewness and kurtosis, the data was found normally distributed. Indeed,

Constructs	Variables and measures
<i>Independent variables</i>	
Product	T1. Attractive appearance, brilliant colours and proper packing enhance one's intention to buy children's dietary supplements T2. Product quality, concentration and origin are the best factors of concern in purchasing children's dietary supplements T3. The brand name of children's dietary supplements is very important in choosing the product T4. The taste of children's dietary supplements is very important in purchasing decisions
Price	C1. Evaluation of quality and value concerning prices is considered an important step before purchasing children's dietary supplements C2. The availability of discounts and offers makes me more intend to purchase children's dietary supplements C3. Prices of children's dietary supplements play the most significant role in my purchasing decision C4. Believing that a higher price of children's dietary supplements means higher quality C5. Comparing prices between competitor products is a critical step before choosing children's dietary supplements
Place	E1. Readily available children's dietary supplements have a higher influence on the intention of purchasing them E2. Widely distributed children's dietary supplements all over the county have more preference to purchase E3. Well displaying and quickly accessing children's dietary supplements enhance their preference to purchase
Promotion	O1. The displaying methods of children's dietary supplements have the greatest influence on what to purchase from among them O2. Advertising of children's dietary supplements is playing a role in my intention of buying them O3. Sale promotional offers (discounts, gifts and samples) are playing the biggest role in children's dietary supplements purchasing
<i>Mediating variable (eWOM)</i>	
eWOM	W1. I frequently search for information on children's dietary supplement products and brands from social media followers W2. The quality of information posted on social media affects my purchasing intention of children's dietary supplements W3. I follow my friends' feedback and experience on the content of children's dietary supplements W4. High ratings for children's dietary supplement products by people on social media affect my purchasing decision
<i>Dependent variable</i>	
Purchase intention	B1. I have the intention to buy children's dietary supplements B2. I always recommend my friends to buy children's dietary supplements for their kids B3. I am often buying children's dietary supplements for my kids

Table 1.
Study variables and related measurements

skewness and kurtosis were normally distributed, as most of the values were inside the acceptable ranges for normality (i.e. -1.0 to +1.0) for skewness and less than 10 for kurtosis (Hair et al., 2010). Finally, Cronbach's alpha reliability was examined for each construct. Each coefficient greater than 0.60 for adapted and 0.70 for existing scales was considered a reliable study indicator (Hair et al., 2010). Reliability analysis was carried out for each

construct (marketing mix elements, eWOM and purchase intention). The resulting score ranged from 0.83 to 0.94.

Factor analysis results. To provide evidence that the scale in question is unidimensional, additional analysis can be performed, which is exploratory factor analysis. Exploratory factor analysis (EFA) is a technique used to reduce a large number of variables into fewer factors. It is also considered an appropriate method to overcome the potential problems of multicollinearity among the variables. A pre-analysis was performed to examine the suitability of the data for factor analysis and the results of factor analysis were examined by using multiple criteria, which include subjective values, internal consistency and interpretability as recommended by Yu and Richardson (2015). Items determined to have eigenvalues with more significance than one and factor loadings less than 0.4 are considered to have little or no relationship with one another. Hence, they were discarded (Hair et al., 2010). The findings of factor analysis, as shown in Table 3, indicate that four factors could be extracted from the 15 independent variables (marketing mix strategies). These four factors, according to their eigenvalues, are product, price, place and promotion. Based on the preliminary analysis, the evaluation of the data by factor analysis and reliability estimates indicated that all scale items were appropriate and valid for further statistical analysis.

Table 4 illustrates the collinearity statistics test results, showing that the VIF value for each independent variable factor is less than 10, with 0.795 – 0.934 tolerance. This means that there is no appearance of any multicollinearity problem among the independent variables' dimensions (Nawata, 1993).

Hypotheses testing results

Multiple regression analysis and ANOVA were used to test the study hypotheses (H01 and H02). The summary of results of H01 in Table 5 shows that the *R*-value (*Beta* = 0.471) indicates that there is a positive correlation between marketing mix strategies and women's purchase intention of children's dietary supplements at the significance level ($\alpha \leq 0.05$). The value of *R*-square (0.229) indicates that about 23% of the variance in women's purchase

Independent variables (Marketing mix)	Mean	SD	Skewness	Kurtosis	Cronbach's alpha
Place	3.1959	0.8760	0.058	-0.988	0.79
Promotion	3.6346	0.9014	-0.380	0.086	0.94
Price	4.2645	0.8090	-1.094	1.101	0.87
Product	3.8495	0.8483	-0.663	-0.102	0.87
Average	3.7361	0.7865	-0.1450	1.2110	0.89
Mediating variable (eWOM)	3.8423	0.8460	-0.173	-0.630	0.85
Dependent variable purchase intention	4.1945	0.8023	-1.014	1.207	0.83

Table 2.
Mean, standard deviation, normality test and reliability test

Factors	No. of items	Eigenvalue	% of variance	Cumulative %
Product	4	5.432	4.693	24.693
Price	5	3.322	39.791	15.098
Place	3	2.684	51.989	12.198
Promotion	3	2.264	62.281	10.293

Table 3.
Factors underlying the marketing mix elements

intention of children’s dietary supplements could be explained by the effect of the four strategies of the marketing mix (product, price, place and promotion). Besides, the results illustrate that the most significant variables that explain the variance in women’s purchase intention of children’s dietary supplements were price and place. Simultaneously, product and promotion were found to be insignificantly influential on women’s purchase intention of children’s dietary supplements.

The summary of results for *H02* in the Table 6 shows that the multiple correlation coefficient (*R*) value is 0.622, indicating that there is a positive correlation between marketing mix strategies and eWOM. The value of the coefficient of determination (*R*-square) is 0.386. This means that 38.6% of the variance in eWOM is explained by

Table 4.
VIF and tolerance calculations

Model(a)	Tolerance	Collinearity statistics	VIF
Product	0.934		1.070
Price	0.795		1.257
Place	0.873		1.145
Promotion	0.840		1.190

Note: a. Dependent variable: Women’s purchase intention

Table 5.
A summary regression result for the first hypothesis

Model (b)	Model summary			ANOVA		Coefficients(a)		
	<i>R</i>	<i>R</i> -square	Adjusted <i>R</i> -square	<i>F</i> -value	Sig.	<i>Beta</i>	<i>T</i>	Sig. (<i>p</i> -value)
Model (b)	0.471 ^a	0.229	0.220	6.922	0.000			
Constant							4.585	0.000
Product						0.016	0.784	0.434
Price						0.213	3.159	0.002
Place						0.091	2.624	0.009
Promotion						0.033	0.890	0.374

Notes: a. Predictors: (Constant), Marketing mix elements. b. Dependent variable: Women’s purchase intention of children’s dietary supplements

Table 6.
A summary of regression result for *H02*

Model (b)	Model summary			ANOVA		Coefficients(a)		
	<i>R</i>	<i>R</i> -square	Adjusted <i>R</i> -square	<i>F</i> -value	Sig.	<i>Beta</i>	<i>T</i>	Sig. (<i>p</i> -value)
Model (b)	0.622 ^a	0.386	0.379	23.602	0.00 ^b			
Constant							4.321	0.000
Product						0.313	2.07	0.000
Price						0.101	7.545	0.039
Place						0.009	1.594	0.112
Promotion						0.019	1.808	0.071

Notes: a. Predictors: (Constant), Marketing mix elements, b. Dependent variable: eWOM

marketing mix strategies. [R -square (0.386) – Adjusted R -square (0.379) = 0.007], indicating that the results of the research sample might diverge from the results of the research population by 0.007; so, we can consider the sample representative of the study population. Table 6 shows that ANOVA will be used in the main hypothesis testing. The F -value is 23.602, which is significant (Sig. F = 0.000) at $\alpha \leq 0.05$; so, there is a statistically significant influence of marketing mix strategies on eWOM. To test the sub-hypotheses, the coefficients are used. The results also show that only two marketing mix strategies (product and price) have significant effects on eWOM, while place and promotions are not significant.

To test $H03$, the role of eWOM as a mediating variable in the influence of marketing mix strategies on women’s purchase intention of children’s dietary supplements, path analysis by AMOS. Table 7 shows the results of Step 1. It indicates that there is a significant influence of marketing mix strategies on women’s purchase intention of children’s dietary supplements at a significance level ($\alpha \leq 0.05$), where the value of this influence is (0.462), and the value of R^2 is (0.213).

The results of Step 2 (Table 8) denote that there is a significant influence of marketing mix strategies on women’s purchase intention of children’s dietary supplements (Sig. = 0.000) at the level of significance ($\alpha \leq 0.05$) and the value of this influence decreased to 0.229, while the value of R^2 increased to 0.544. Furthermore, the influence between MME and eWOM and the influence between eWOM and women’s R^2 intention of children’s dietary supplements are significant (Sig = 0.000) at the significance level ($\alpha \leq 0.05$). This result indicates that eWOM plays a partial mediating role in the influence of marketing mix strategies on women’s purchase intention of children’s dietary supplements. The findings also show that when marketing mix strategies merged, the level of women’s buying intention of children’s dietary supplements will increase in the presence of digital financial innovation ($R^2 = 0.544, p = 0.000$).

Discussion and conclusion

Overall, this study handles the gap in the purchase behaviour literature by presenting a holistic framework that measures how marketing mix strategies influence the women’s purchase intention of children’s dietary supplements via eWOM in Jordan’s pharmaceutical sector. Multiple regression analysis confirms a significant positive

Variable	Sig.	Estimate	C.R.	S.E.	R^2
MME ← PI	0.000	0.471	6.547	0.016	0.229

Table 7.
Step 1

Notes: *MME (marketing mix elements); PI (purchase intention)

$H04$	Hypothetical path*	Sig.	Estimate	C.R.	S.E.	R^2
PI ← MME	0.000	0.472	5.683	0.037	0.544	
eWOM ← MME	0.000	0.521	6.573	0.031		
PI ← eWOM	0.000	0.451	4.655	0.056		

Table 8.
Step 2

Notes: *PI (purchase intention); MME (marketing mix strategies); eWOM (electronic word of mouth)

relationship between marketing mix variables and women's purchase intention of children's dietary supplements. Specifically, the results show that price and place are the most significant factors that affect women's purchase intention of children's dietary supplements, while product and promotion were found not significant. The possible explanation of this result includes that Jordanian women increasingly prefer to buy low price dietary supplements for their kids from convenience places, as most respondents are unemployed or working for a low salary. This result is supported by previous studies, such as [Kusumawati et al. \(2014\)](#), [Mwagawe \(2014\)](#) and [Nayab et al. \(2017\)](#),

The research findings provide supportive evidence for the influence of price and product as marketing mix strategies on eWOM, while place and promotion strategies have been of an insignificant effect on eWOM. The possible explanation of this result is that women in Jordan are increasingly searching for product quality information at a reasonable price about children's dietary supplements for their kids through eWOM on social media networks. These findings were supported by previous studies, such as [Cengiz and Yayla \(2007\)](#). Also, the research finding supplies additional supports for the influence of eWOM on women's buying intention of children's dietary supplements. These findings confirm and support the findings of previous studies on the relationship between eWOM and buying intention by [Fan and Miao \(2012\)](#), [Nayab et al. \(2017\)](#), [Kala and Chaubey \(2018\)](#), [Alhassen \(2018\)](#) and [Sardar et al. \(2021\)](#).

This study provides a significant result of the indirect effect of the eWOM factor on the relationship between marketing mix strategies and women's purchase intention of children's dietary supplements in Jordan. The results show that pharmaceutical companies must perceive the important effect of eWOM, which is associated with more influence of marketing mix strategies on others' perceptions, and translated into a greater buying intention and finally a higher chance of actual purchase. This result represents the major contribution of this research to filling the gap in the literature pertinent to the research topic.

Theoretical implications

The current study concentrates on the influence of marketing mix strategies on women's purchase intention of children's dietary supplements through the mediating effect of the eWOM factor. Different significant theoretical implications resulted from the research findings. First, there are significant influences of price and place of marketing mix elements on women's purchase intention of children's dietary supplements, while product and promotion dimensions do not significantly affect women's purchase intention. On the other hand, this study's findings found that price and product elements impact the eWOM factor, while place and promotion dimensions do not significantly influence the eWOM factor. However, there is a significant influence of eWOM on women's purchasing intention of children's dietary supplements.

Second, this research added to the limited amount of quantitative research from the pharmaceutical sectors' perspective, as it is the first of its kind in the field of the pharmaceutical industry that examined the correlations between the four elements of the marketing mix and women's purchase intention of children's dietary supplements through the mediating effect of electronic word of mouth factor in the Jordanian culture context. This research could provide some new insights into the context, since most of the previous studies were concerned with non-pharmaceutical sectors and other countries.

Practical contributions and recommendations

This study could benefit brand manager, marketing managers and product managers in pharmaceutical industry to be better concerned with the marketing mix elements that affect purchase intention of pharmaceutical products in general and children's dietary supplements in particular, focusing on the important role of the eWOM factor for better prediction of the purchase intention. The results of this study may help marketing managers prepare a focused marketing strategy to consider the main determinants of purchase intention of children's dietary supplements to give the best products that cover customers' needs, meet the company's goals and differentiate themselves from these of competitors. Moreover, they should be fully aware of the importance on purchase intention by focusing on enhancing positive eWOM and limiting negative eWOM, which would lead to achieving the desired success and increasing their market share and profit. Finally, according to the research results, the outcomes provide a managerial implication for pharmaceutical retailing companies to focus on the most important dimension: the price, with consideration of other dimensions that affect eWOM and women's purchase intention of children's dietary supplements

Limitations and future researches

This study focused on the key elements of marketing mix (product, price, place and promotion) that were suggested based on previous research to influence women's purchase intention of children's dietary supplements through the mediating role of eWOM. However, this does not mean that there would not be any other factors that may influence women's purchase intention of children's dietary supplements. For instance, other marketing mix elements could have influence, such as people who make contact with customers, systems and processes of the company and the physical environment that the customer experiences, all of which were not considered in this study. Moreover, this research's primary limitation is that it explores only one sector (pharmaceutical companies), potentially limiting generalizability to other sectors. Finally, most of the respondents in our study are not working; so, they have limited purchase potential than others who are working. Therefore, bias exists due to the different purchase behaviours between people in different working positions. Future studies might focus on other models, such as the impact of all marketing mix elements (7Ps: product, price, place, promotion, people, process and physical environment) on purchase intention in general through the mediating role of social media tools. Additionally, another exciting area of future research is to study the impact of customers' behaviour on response to purchase in the context of social media in the pharmaceutical sector.

References

- Abraham, B., Sreeja, P., Sarju, D. and San, S. (2015), "Study on self-medication patterns and perspectives of over-the-counter (OTC) drugs", *International Journal of Pharma Research and Review*, Vol. 4 No. 11, pp. 30-34.
- Abuhashesh, M., Al-Khasawneh, M., Al-Dmour, R. and Masa'deh, R. (2019), "The impact of Facebook on Jordanian consumers' decision process in the hotel selection", *IBIMA Business Review*, pp. 1-16.
- Ahmad, A., Abuhashesh, M., Obeidat, Z. and Al-Khatib, M. (2020), "E-WOM and airline e-ticket purchasing intention: mediating effect of online passenger trust", *Management Science Letters*, Vol. 10 No. 12, pp. 2729-2740.

- Al Badi, K.S. (2018), "The impact of marketing mix on the SME sector's competitive advantage in Al-Buraimi governorate in Oman", *SAGE Open*, Vol. 8 No. 3, p. 158244018800838.
- Alabbadi, I. and Ashour, H. (2016), "Direct-to-consumer advertising for pharmaceuticals in Jordan from a gender perspective", *Eastern Mediterranean Health Journal*, Vol. 22 No. 6, pp. 383-393.
- Al-Dmour, H. (2008), "The impact of the marketing mix elements on residential flats purchasing decision in Western Amman area in Jordan", *Dirasat*, Vol. 35 No. 1, pp. 21-34.
- Alhassen, O., A., Z. (2018), "Marketing factors affecting on purchasing decision for laboratory medical supplies: empirical study on private medical laboratories in Amman, Jordan", Doctoral Dissertation, Zarqa University.
- Asshidin, N.H.N., Abidin, N. and Borhan, H.B. (2016), "Perceived quality and emotional value that influence consumers' purchase intention towards American and local products", *Procedia Economics and Finance*, Vol. 35 No. 3, pp. 639-643.
- Azizpour, R., Abbasnejad, T. and Siyavooshi, M. (2016), "Effective factors on purchasing intention of cosmetics and health products in Tehran city", *International Journal of Academic Research in Business and Social Sciences*, Vol. 6 No. 11, pp. 449-458.
- Bailey, R.L., Gahche, J.J., Thomas, P.R. and Dwyer, J.T. (2013), "Why US children use dietary supplements", *Pediatric Research*, Vol. 74 No. 6, pp. 737-741.
- Bashir, A.M., Bayat, A., Olutuase, S.O. and Abdul Latif, Z.A. (2019), "Factors affecting consumers' intention towards purchasing halal food in South Africa: a structural equation modeling", *Journal of Food Products Marketing*, Vol. 25 No. 1, pp. 26-48.
- Bebber, S., Milan, G.S., De Toni, D., Eberle, L. and Slongo, L.A. (2017), "Antecedents of purchase intention in the online context", *Journal of Relationship Marketing*, Vol. 16 No. 1, pp. 82-98.
- Beck, L. and Ajzen, I. (1991), "Predicting dishonest actions using the theory of planned behavior", *Journal of Research in Personality*, Vol. 25 No. 3, pp. 285-301.
- Berger, J. (2014), "Word of mouth and interpersonal communication: a review and directions for future research", *Journal of Consumer Psychology*, Vol. 24 No. 4, pp. 586-607.
- Carvalho, B., Salgueiro, M. and Rita, P. (2016), "Accessibility and trust: the two categories of consumers' perception on sustainable buying intention", *International Journal of Sustainable Development and World Ecology*, Vol. 23 No. 2, pp. 203-209.
- Cengiz, E. and Yayla, H. (2007), "The effect of marketing mix on positive word of mouth communication: evidence from accounting offices in Turkey", *Innovative Marketing Journal*, Vol. 3 No. 4.
- Elvinda, L., Evanita, S. and Patrisia, D. (2019), "The effect of marketing mix satisfaction on purchase intentions of GM brand helm on students of the state University of Padang", *2nd Padang International Conference on Education, Economics, Business and Accounting (PICEEBA-2 2018)*, Atlantis Press.
- Fan, Y. and Miao, Y. (2012), "Effect of electronic word-of-mouth on consumer purchase intention, the perspective of gender differences", *International Journal of Electronic Business Management*, Vol. 10 No. 3, pp. 175-181.
- Farzin, M. and Fattahi, M. (2018), "E-WOM through social networking sites and impact on purchase intention and brand image in Iran", *Journal of Advances in Management Research*, Vol. 15 No. 2, pp. 33-47.
- FDA (2006), "Dietary supplements what you need to know", available at: www.fda.gov/downloads/Food/DietarySupplements/UCM240978.pdf
- Filieri, R. and McLeay, F. (2014), "E-WOM and accommodation: an analysis of the factors that influence travelers' adoption of information from online reviews", *Journal of Travel Research*, Vol. 53 No. 1, pp. 44-57.

- Gautam, V. and Sharma, V. (2017), "The mediating role of customer relationship on the social media marketing and purchase intention relationship with special reference to luxury fashion brands", *Journal of Promotion Management*, Vol. 23 No. 6, pp. 872-888.
- Giovanis, A., Tomaras, P. and Zondiros, D. (2013), "Suppliers logistics service quality performance and its effect on retailers' behavioral intentions", *The 2nd International Conference on Integrated Information, Social and Behavioral Sciences*, Vol. 73, pp. 302-309.
- Habash, R. and Al-Dmour, H. (2020), "Factors influencing the intention to buy over-the-counter medicines: an empirical study", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 14 No. 2, pp. 305-323.
- Hair, J.F., Black, W.C, Babin, B.J. and Anderson, R.E. (2010), *Multivariate Data Analysis*, Prentice-Hall, Upper Saddle River, NJ.
- Hsu, C., Chang, C. and Yansritaku, C. (2017), "Exploring buying intention of green skincare products using the theory of planned behavior: testing the moderating effects of country of origin and price sensitivity", *Journal of Retailing and Consumer Services*, Vol. 34, pp. 145-152.
- Ismagilova, E., Slade, E.L., Rana, N.P. and Dwivedi, Y.K. (2019), "The effect of electronic word of mouth communications on the intention to buy: a meta-analysis", *Information Systems Frontiers*, Vol. 22 No. 5, pp. 1-24.
- Kala, D. and Chaubey, D.S. (2018), "Impact of electronic word of mouth on brand image and purchase intention towards lifestyle products in India", *Pacific Business Review International*, Vol. 10 No. 9, pp. 135-144.
- Kevrekidis, D., Minarikova, K., Markos, A., Malovecka, I. and Minarik, P. (2018), "Community pharmacy customer segmentation based on factors influencing their selection of over-the-counter pharmacy medicines", *Saudi Pharmaceutical Journal*, Vol. 26 No. 1, pp. 33-43.
- Kotler, P. and Keller, K. (2016), *Marketing Management*, 15th Global Edition, Pearson, London, pp. 52-54.
- Kusumawati, R., Oswari, T., Utomo, R. and Kumar, V. (2014), "The influence of 7P's of marketing mix on buying intention of music product in Indonesia", *Procedia Engineering*, pp. 1765-1771.
- Latif, W.B., Islam, M.A. and Noor, I.M. (2014), "Building brand awareness in the modern marketing environment: a conceptual model", *International Journal of Business and Technopreneurship*, Vol. 4 No. 1, pp. 69-82.
- Lim, Y.J., Osman, A., Salahuddin, S.N., Romle, A.R. and Abdullah, S. (2016), "Factors influencing online shopping behavior: the mediating role of purchase intention", *Procedia Economics and Finance*, Vol. 35, pp. 401-410.
- Litvin, S.W., Goldsmith, R.E. and Pan, B. (2008), "Electronic word-of-mouth in hospitality and tourism management", *Tourism Management*, Vol. 29 No. 3, pp. 458-468.
- Liu, Z. and Park, S. (2015), "What makes a useful online review?", *Implications for Travel Product Websites*, *Tourism Management*, Vol. 47, pp. 140-151.
- Luo, Q. and Zhong, D. (2015), "Using social network analysis to explain communication characteristics of travel-related electronic word-of-mouth on social networking sites", *Tourism Management*, Vol. 46, pp. 274-282.
- Manafzadeh, Z., Ghafarloo, A., Sayadan, M.C., Sendi, J.S., Elahi, S., Hosseinzadeh, S. and Janati, N. (2012), "Does the marketing mix affect consumers' behavior of dairy products?", *Journal of Basic and Applied Scientific Research*, Vol. 2 No. 6, pp. 5823-5827.
- Mauri, A. and Minazzi, R. (2013), "Web reviews influence on expectations and purchasing intentions of hotel potential customers", *International Journal of Hospitality Management*, Vol. 34, pp. 99-107.
- Mwagawe, J.K. (2014), "The influence of marketing mix variables on consumer buying behavior of insecticides treated bed nets in Nairobi county", Doctoral Dissertation, University of Nairobi.

- Nawata, K. (1993), "A note on the estimation of models with sample-selection biases", *Economics Letters*, Vol. 42 No. 1, pp. 15-24.
- Nayab, S. Adil, A. Waqar, A. and Adeel, A. (2017), "Impact of marketing mix strategies on consumer purchase intention", available at: www.coursehero.com/file/52993363/Nayab-fifthpdf
- Nugroho, A.R. and Irena, A. (2017), "The impact of marketing mix, consumer's characteristics and psychological factors to consumers' purchase intention on brand 'W' in surabaya", *iBuss Management*, Vol. 5 No. 1, pp. 55-69.
- Pandey, S. and Srivastava, D.S. (2017), "A study on determinants of customer purchase intention in healthcare product: a case of general medical equipment in India", *Journal of Management*, Vol. 4 No. 2, pp. 19-30.
- Park, D., Lee, J. and Han, I. (2007), "The effect of online consumer reviews on consumer purchasing intention, the moderating role of involvement", *International Journal of Electronic Commerce*, Vol. 11 No. 4, pp. 125-148.
- Phan, T.T.H. and Vu, P.A. (2015), "The impact of marketing mix elements on food buying behavior: a study of supermarket consumers in Vietnam", *International Journal of Business and Management*, Vol. 10 No. 10, p. 206.
- Rad, H.S. and Akbari, Z. (2014), "The role of brand and advertising in marketing mix (a review of marketing mix)", *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 6 No. 7, pp. 114-127.
- Saleem, A. and Ellahi, A. (2017), "Influence of electronic word of mouth on purchase intention of fashion products on social networking websites", *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, Vol. 11 No. 2, pp. 597-622.
- Sardar, A., Manzoor, A., Shaikh, K.A. and Ali, L. (2021), "An empirical examination of the impact of eWom information on young consumers' online purchase intention: Mediating role of eWom information adoption", *SAGE Open*, Vol. 11 No. 4, doi: [10.1177/21582440211052547](https://doi.org/10.1177/21582440211052547).
- Saunders, M., Lewis, P. and Thornhill, A. (2009), *Research Methods for Business Students*, Pearson, New York, NY.
- Schiffman, G. and Joseph, W. (2020), *Consumer Behavior*, 11th ed., Prentice-Hall, Buffalo, New York.
- Serra Cantallops, A. and Salvi, F. (2014), "New consumer behavior, a review of research on E-WOM and hotels", *International Journal of Hospitality Management*, Vol. 36, pp. 41-51.
- Shabbir, S., Kaufmann, H.R., Ahmad, I. and Qureshi, I.M. (2010), "Cause-related marketing campaigns and consumer purchase intentions: the mediating role of brand awareness and corporate image", *African Journal of Business Management*, Vol. 4 No. 6, pp. 1229-1235.
- Shoenberger, E. (2018), "What is the importance of the marketing mix in the development of a marketing strategy and tactics?", *Bizfluent*, available at: <https://bizfluent.com/info-8132703-importance-development-marketing-strategy-tactics.html>
- Siwalankerto, J. (2017), "The impact of marketing mix, consumer's characteristics and psychological factors to consumer's purchase intention on brand 'W' in surabaya", *iBuss Management*, Vol. 5 No. 1, pp. 121-131.
- Smaoui, F., Kilani, F. and Touzani, M. (2016), "Country-of-origin versus brand: consumers' dilemma when choosing between generic and branded drugs in emerging countries", *Journal of Product and Brand Management*, Vol. 25 No. 2, pp. 148-159.
- Smith, L.C., Ramakrishnan, U., Ndiaye, A., Haddad, L. and Martorell, R. (2003), "The importance of women's status for child nutrition in developing countries: international food policy research institute (IFPRI) research report abstract 131", *Food and Nutrition Bulletin*, Vol. 24 No. 3, pp. 287-288.
- Sohaib, M., Hui, P. and Akram, U. (2018), "Impact of eWOM and risk-taking in gender on purchase intentions: evidence from Chinese social media", *International Journal of Information Systems and Change Management*, Vol. 10 No. 2, pp. 101-122.

- Sulaiman, Y. and Masri, M. (2017), "The impact of marketing mix on consumer preference towards supplement product", *Journal of Advanced Research in Social and Behavioural Sciences*, Vol. 7 No. 1, pp. 33-47.
- Thabit, T. and Raewf, M. (2018), "The evaluation of marketing mix elements: a case study", *International Journal of Social Sciences and Educational Studies*, Vol. 4 No. 4, pp. 100-109.
- Thomas, P.R. (2014), "Supplement use among US adults: implications for the dietetics professional", *Journal of the American Dietetic Association*, Vol. 104 No. 6, pp. 950-951.
- Vahdati, H. and Mousavi Nejad, S.H. (2016), "Brand personality toward customer purchase intention: the intermediate role of electronic word-of-mouth and brand equity", *Asian Academy of Management Journal*, Vol. 21 No. 2, pp. 1-26.
- Wang, X. and Yang, Z. (2008), "Does country-of-origin matter in the relationship between brand personality and purchase intention in emerging economies: evidence from China's auto industry", *International Marketing Review*, Vol. 25 No. 4, pp. 458-474.
- Yu, T. and Richardson, J.C. (2015), "Examining reliability and validity of a Korean version of the Community of Inquiry instrument using exploratory and confirmatory factor analysis", *The Internet and Higher Education*, Vol. 25, pp. 45-52.

Corresponding author

Hani Al-dmour can be contacted at: dmourh@ju.edu.jo

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com