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The Impact of User-Generated Content on Brand Equity Dimensions and Purchase Intention of Egyptian Telecom Operators' Subscribers

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Abstract

This study investigates the effect of online user-generated content (UGC) on brand equity dimensions and subscribers' purchase intention to Egyptian telecom operators. Data are collected from 400 telecom operators' subscribers. Structural equation modeling (SEM) is utilized for data analysis. The findings reveal a direct relationship between UGC and the four brand equity dimensions. Brand perceived quality and loyalty mediate the relationship between UGC and purchase intention also affect subscribers' purchase intention. Whereas brand awareness and associations do not affect subscribers' purchase intention. Marketers can capitalize on social media platforms to encourage subscribers to express their opinions and create online customer engagement. The study concentrates only on UGC, future research can further investigate the firm-created content. The suggested conceptual model developed based on the Stimulus-Organism-Response Model tests a correlation that associates brand equity dimensions to UGC and Purchase Intention.

Keywords

User-Generated Content UGC, Brand Awareness, Brand Associations, Brand Loyalty, Brand Perceived Quality, Purchase Intention

Article history

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1. Introduction

User-generated content (UGC) has paved the way for consumers and businesses to communicate and share information in a novel digital ecosystem (Dessart *et al.*, 2015; ElAydi, 2018; Amoako *et al.*, 2019). Furthermore, 90% of content generated by social media users is related to brands (ElAydi, 2018).

Egypt has witnessed a significant rise in the number of telecom subscribers and subscribers' demand for mobile internet services, 78% of telecom subscribers use social media to search for brands (ElAydi, 2018). Furthermore, 45% of telecom subscribers interact with others through UGC (ElAydi, 2018) and 49% establish purchase intention because of UGC's perceived credibility, which can thus impact a brand's equity and consumers' purchase intention (Amoako *et al.*, 2019). Recently, researchers postulate that brand equity consistently impacts consumers' purchase intention (Wei *et al.*, 2023).

Brand equity is considered one of the essential and prevalent marketing constructs for understanding marketing theory and practice. Furthermore, it allows brands to build long-term customer relationships, which develops positive word-of-mouth (Keller, 2009; Gaber & ElSamadicy, 2021). Scholars have proposed various brand equity dimensions (Aaker, 1991; Keller, 1993; Kimpakorn & Tocquer, 2010; ElDallal *et al.*, 2018). However, the originally developed and most widely used dimensions are brand awareness, associations, perceived quality, and loyalty (Aaker, 1991; Nguyen & Tran, 2023). These four dimensions construct a brand's value (Huerta-Alvarez *et al.*, 2020, as cited in Nguyen & Tran, 2023). The users' access to online UGC is prominent in influencing their awareness and perceptions of the images and quality of a brand. Thus, developing a brand's value in the market (Nguyen & Tran, 2023).

Prior studies examine the influence of UGC on brand equity dimensions and purchase intention in various industries such as airlines, FMCGs, retail, banking, and hospitality (Augusto & Torres, 2018; ElDallal *et al.*, 2018; Sijoria *et al.*, 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021; Halim & Candraningrum, 2021). Moreover, studies posit that the vast access of users to UGC positively affects brand equity and brand evaluation (Stojanovic *et al.*, 2022; Nguyen & Tran, 2023).

Marketers in the telecom industry utilize UGC to enhance their brand equity and increase subscribers' purchase intention (Abu-Rumman & Alhadid, 2014; Amoako et al., 2019) and 78% of telecom subscribers utilize social media platforms to search for information about brands (ElAydi, 2018). Nonetheless, there is a lack of knowledge about the effect of UGC on brand equity dimensions and subscribers' purchase intention in Egyptian telecom operators.

As a result, this study investigates the effect of user-generated content on brand equity dimensions and purchase intention among Egyptian telecom operators' subscribers.

1.1 Research Objectives

The main research objective is divided into the following sub-objectives:

RO1: To Investigate the Effect of UGC on Brand Equity Dimensions.

- RO1a: To investigate the effect of UGC on subscribers' brand awareness of the telecom operator's brand they are subscribed to.
- RO1b: To investigate the effect of UGC on subscribers' brand associations of the telecom operator they are subscribed to.
- RO1c: To investigate the effect of UGC on subscribers' brand perceived quality of the telecom operator they are subscribed to.
- RO1d: To investigate the effect of UGC on subscribers' brand loyalty to the telecom operator's brand they are subscribed to.

RO2: To Investigate the Effect of Brand Equity Dimensions on Purchase Intention.

- RO2a: To investigate the effect of subscribers' brand awareness of the telecom operator's brand they are subscribed to on their purchase intention.
- RO2b: To investigate the effect of subscribers' brand associations of the telecom operator they are subscribed to on their purchase intention.
- RO2c: To investigate the effect of subscribers' brand perceived quality of the telecom operator they are subscribed to on their purchase intention.
- RO2d: To investigate the effect of subscribers' brand loyalty to the telecom operator's brand they are subscribed to on their purchase intention.

RO3: To Investigate the Mediating Effect of Brand Equity Dimensions on the Relationship between UGC and Subscribers' Purchase Intention.

2. Literature Review

2.1. Conceptualization of User-Generated Content

2.1.1 Social Media

Social media is the primary up-to-date information source for nearly 50% of customers (Bilgin, 2018; Statista, 2019). Social media platforms or social networking sites SNS are defined as "web-based applications and interactive platforms that can facilitate the creation, discussion, modification, and exchange of the content that is generated by the users themselves" (ElZoghby *et al.*, 2021, p. 168). Interaction, entertainment, trendiness, and customization are all examples of social media activities (Bilgin, 2018; Cheung *et al.*, 2019).

Social media permits marketers to perform marketing activities with concise targeting and lower costs (Bilgin, 2018; Gaber *et al.*, 2019). Additionally, enabling businesses to cultivate profitable customer relationships, increase sales, and generate favorable word-of-mouth (Poturak & Softic, 2019; ElZoghby *et al.*, 2021). Social media content includes firm-generated and user-generated content (Bruhn *et al.*, 2012; ElDallal *et al.*, 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021).

2.1.2 User-Generated Content (UGC)

User-generated content can be defined as "a statement made by potential, current or former consumers about a product, brand, or company, which is available for a multitude of people via the Internet" (Tardin & Pelissari, 2021, p. 409). UGC are the messages, comments, images, videos, or blogs created by online users (ElZoghby *et al.*, 2021).

Some scholars believe that UGC is a driving force for online brand communication and it allows marketers to better understand consumers' insights (Poturak & Softic, 2019). While, other scholars claim that UGC can be a double-edged sword as marketers cannot control what is generated online by consumers about the brand (Agarwal, 2020; ElZoghby *et al.*, 2021). The significance of UGC stems from its ability to generate viral advertising in which consumers share free brand-related content (Poturak & Softic, 2019). Moreover, UGC is perceived as an unbiased source of information more than firm-created content, which in turn affects consumers' purchase intention and overall attitude toward a brand (Bilgin, 2018; ElDallal et al., 2018; Poturak & Softic, 2019; Tardin & Pelissari, 2021).

2.2 Conceptualization of Brand Equity

Customer-Based Brand Equity (CBBE) or Brand Equity is developed by Aaker (1991) and can be defined as "the result of a firm's effort over the years to build the capital of its brands" (Tardin & Pelissari, 2021, p. 408). Brand equity is perceived as the incremental premium value of a brand, the value can be either finance-based value or customer-based (Wei *et al.*, 2023).

Scholars posit that brand equity is one of the essential and prevalent marketing constructs for understanding marketing theory and practice. Additionally, it allows brands to build long-term customer relationships, which can develop positive word-of-mouth (Keller, 2009; Gaber & ElSamadicy, 2021). A successful business requires a strong brand equity that sustains its competitive advantage in an ever-changing technology-driven and globalized economy, develops an entry barrier to competitors, and secures premium prices (Gaber & ElSamadicy, 2021). Furthermore, it is perceived as an important pillar in market differentiation and competitive advantage (Perrera *et al.*, 2023). Importantly, UGC actively creates brand awareness and enables businesses to develop customer loyalty (Wei *et al.*, 2023). The previous arguments posit a driving force to investigate the impact of online UGC on brand equity.

2.3 Operationalization of Brand Equity

Numerous studies propose various brand equity dimensions (Aaker, 1991; Keller, 1993; Kimpakorn & Tocquer, 2010; ElDallal *et al.*, 2018; Perrera *et al.*, 2023). Aaker (1991) argues that brand equity is multi-dimensional and categorizes it into brand awareness, brand associations, brand perceived quality, and brand loyalty. While, Keller (1993) categorizes brand equity into brand awareness and image. On one hand,

Kimpakorn and Tocquer (2010) claim that brand equity dimensions are awareness, perceived quality, differentiation, associations, trust, and relationships. Moreover, ElDallal et al. (2018) classify brand equity into awareness, associations, perceived quality, loyalty, and trust. On the other hand, Perrera et al. (2023) classify brand equity into the following diverse dimensions: social image, performance, attachment, trustworthiness, and value.

This study adopts the brand equity dimensions established by Aaker (1991) namely *brand awareness, brand associations, brand perceived quality, and brand loyalty.*

2.3.1 Brand Awareness

Brand awareness is defined as "the strength of a brand's presence in the consumers' mind" (ElAydi, 2018, p. 4). Brand awareness can be described as the consumers' capability to identify and recall a brand and its performance in specific product categories and situational cues because of elements such as name, logo, slogan, and packaging (Bilgin, 2018; Gaber & ElSamadicy, 2021).

Brand awareness can be measured through its ability to create recognition and recall in consumers' minds. Moreover, studies indicate that brand awareness is a pivotal indicator of a brand's success (Wei *et al.*, 2023). Scholars add that UGC is a driving force for online brand awareness, which strengthens brand recall and recognition levels (Wei *et al.*, 2023). Additionally, scholars contend that brand awareness is the most important preliminary phase for developing brand associations, which influences consumers' purchase intention (Hutter *et al.*, 2013; Dabbous & Barakat, 2020).

2.3.2 Brand Associations

Brand associations are defined as "anything linked in memory to a brand" (Poturak & Softic, 2019, p. 25). Brand associations include the thoughts, beliefs, attitudes, and experiences that consumers store in their minds about a brand (Gaber & ElSamadicy, 2021).

Brand associations are a core element in building brand image, brand extensions, and brand identification, leading to strong brand equity (Gaber & ElSamadicy, 2021). Scholars posit that exposure to UGC impacts consumers' memories associated with the brand and/or its products (Wei *et al.*, 2023). Several scholars believe that marketers' efforts to build strong brand associations result in positive attitudes toward the brand. Accordingly, consumers perceive a brand as a valuable purchase choice (Bruno & Dabrowski, 2015; ElDallal *et al.*, 2018).

2.3.3 Brand Perceived Quality

Perceived quality is defined as "perception of the superiority of the product compared to others in the same category or close substitutes" (ElDallal *et al.*, 2018, p. 110). Brand perceived quality is how customers perceive a brand and its offerings in terms of quality, reliability, functionality, consistency, and performance because of

consumers' experience with the brand (ElNaggar & Bendary, 2017; Tardin & Pelissari, 2021).

Marketers focus on creating a customer-driven quality strategy to satisfy customers' expected value, which leads to securing price premium, profitability, and competitive advantage (Poturak & Softic, 2019; Gaber & ElSamadicy, 2021). Wei *et al*. (2023) argue that brands with online marketing communication are perceived as a higher quality consumers rely on the UGC to develop quality perceptions and evaluations about brands.

2.3.4 Brand Loyalty

Brand loyalty can be defined as "a situation which reflects how likely a customer will be to switch to another brand, especially when that brand makes a change either in price or in product features" (Poturak & Softic, 2019, p. 26).

Arguments on brand loyalty are concerned with the rightful methods of developing loyalty not with the rightful methods of conceptualizing it (Aljuhmani *et al*., 2022).

Brand loyalty is prominent for comprehending marketing theory and practice as it acts as a top priority of marketing activities (Althuwaini, 2022). Several scholars emphasize that brand loyalty can be explained as a conscious "repurchase behavior" that arises from experience with the brand's products/services regardless of a competitor's efforts to incentivize those consumers to switch to their brands, which enhances word-of-mouth, reduces switching behavior, and lowers the costs of retaining customers (Bilgin, 2018; ElDallal *et al*., 2018; Gaber & ElSamadicy, 2021). Wei *et al.* (2023) argue that UGC plays a pivotal role in driving customers' brand loyalty as consumers' engagement with the brand through UGC triggers them to feel empowered and leads to favorable outcomes. Moreover, brand loyalty is regularly reinforced through UGC on social media platforms (Wei *et al*., 2023).

2.4 Purchase Intention

Purchase intention is defined as "the mental stage in the decision-making process, in which the consumer develops a real willingness to act towards a product or brand" (Tardin & Pelissari, 2021, p. 411).

Wei et al. (2023) argue that purchase intention may be present in brand loyalty but doesn't overlap with it, indicating that a customer can be loyal and devoted to a specific brand despite having competing alternatives. Moreover, brand loyalty can be considered a source of measurement of purchase intention (Wei *et al*., 2023). Purchase intention is a key indicator of actual purchasing behavior (Dabbous & Barakat, 2020; Gaber & ElSamadicy, 2021; Abina & Ajayi, 2022; Wei *et al*., 2023), which can arise from consumers positive engagement with the brand on digital platforms (Martín-Consuegra *et al*., 2019). Scholars confirm that brand equity dimensions have been a strong influencer in developing customers' purchase intentions across various contexts (Khan *et al*., 2023).

2.5 UGC and Brand Equity Dimensions

Numerous studies examine the correlation between UGC and brand equity dimensions (Bruhn *et al.*, 2012; ElDallal *et al.*, 2018; Augusto & Torres, 2018; Sijoria *et al.*, 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021; Perrera *et al.*, 2023; Wei *et al.*, 2023).

The findings of Perrera *et al.* (2023) reveal that UGC impacts brand equity dimensions by increasing consumers' social brand engagement while examining private higher education institutes in Vietnam and Sri Lanka. Studies claim that social brand engagement mediates the relationship between UGC and brand equity (Perrera *et al.*, 2023). Moreover, an insightful study by Wei *et al.* (2023) indicates that UGC possesses a profound informative and persuasive influence on the brand equity dimensions based on the consumers' information processing theory. Importantly, it has been revealed that UGC directly positively affects brand equity due to consumers' perception of the transparency of online user generated content (Augusto & Torres, 2018; Sijoria *et al.*, 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021; Schivinski *et al.*, 2022), regardless of whether the content is favorable or unfavorable (Bruhn *et al.*, 2012).

Conversely, ElDallal *et al.* (2018) show no direct effect of UGC on perceived quality and loyalty, but a negative effect of UGC on awareness and associations in the Egyptian FMCGs sector such as consumers in the FMCGs industry do not rely on UGC to influence their quality evaluation of a brand, and consumers tend to post online only when they have a complaint. Accordingly, the study develops the subsequent hypotheses:

H1: UGC positively affects brand equity dimensions of the telecom operator subscribers are subscribed to.

- H1a: UGC positively affects subscribers' brand awareness of the telecom operator's brand they are subscribed to.
- H1b: UGC positively affects subscribers' brand associations of the telecom operator they are subscribed to.
- H1c: UGC positively affects subscribers' brand perceived quality of the telecom operator they are subscribed to.
- H1d: UGC positively affects subscribers' brand loyalty to the telecom operator's brand they are subscribed to.

2.6 Brand Equity Dimensions and Purchase Intention

Numerous studies examine the correlation between brand equity and purchase intention, the findings indicate that several brand equity dimensions have a positive effect on purchase intention (Cobb-walgren *et al.*, 1995; Chen & Chang, 2008; Foroudi *et al.*, 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021; Khan *et al.*, 2023; Wei *et al.*, 2023).

The findings of Khan *et al*. (2023) indicate that brand equity positively influences customers' purchase intention, where social media platforms can be utilized to target customers with creative and informative ads to develop their purchase intention. Moreover, the findings of Wei et al. (2023) reveal that only brand associations and loyalty influence consumers' purchase intention during the COVID-19 pandemic. The premise is that during the pandemic consumers have fear of purchasing, indicating that consumers have pre-developed positive associations and loyalty with the brand in their minds to develop the intention to purchase.

While, several studies reveal a positive relationship between all four brand equity dimensions and purchase intention since a combination of several dimensions strongly affects purchase intention development rather than a single dimension (Cobb-Walgren *et al*., 1995; Chen & Chang, 2008; Foroudi *et al*., 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021). Accordingly, the study develops the subsequent hypotheses:

H2: Brand Equity Dimensions positively affect subscribers' purchase intention to the telecom operator they are subscribed to.

- H2a: Subscribers' brand awareness of the telecom operator's brand they are subscribed to positively affects their purchase intention.
- H2b: Subscribers' brand associations of the telecom operator they are subscribed to positively affect their purchase intention.
- H2c: Subscribers' brand perceived quality of the telecom operator they are subscribed to positively affects their purchase intention.
- H2d: Subscribers' brand loyalty to the telecom operator's brand they are subscribed to positively affects their purchase intention.

2.7 UGC and Purchase Intention

The findings of Schivinski et al. (2022) reveal that UGC has a strong impact on consumers' purchase intention of fashion products mediated by brand equity when consumers' level of self-congruity with the brand increases.

A study on the airline sector investigates the mediation impact of brand equity dimensions on the relationship between UGC and purchase intention (Gaber & ElSamadicy, 2021). The findings reveal that all four dimensions mediate the relationship between UGC and purchase intention since UGC serves as a reference point for travelers' purchase decisions due to its perceived credibility. Furthermore, UGC assists airline brands in developing relationships with passengers (Gaber & ElSamadicy, 2021). Several empirical studies investigate various industries, the findings show that UGC positively impacts purchase intention among university students (Themba *et al*., 2013), the tourism industry (Jalilvand & Samiei 2012a), the Iranian automobile industry (Jalilvand & Samiei, 2012b), and the Sri Lankan automobile industry (Karunanayake & Madubashini, 2019), and Bosnian and Herzegovinian domestic brands (Poturak & Softic, 2019). The findings of Kuedehia

and Kumar (2017) and Halim and Candraningrum (2021) correspond with the findings of the prior empirical studies. Accordingly, the study develops the subsequent hypotheses:

H3: Brand Equity dimensions mediate the relationship between UGC and subscribers' purchase intention.

2.8 Research Questions

The research questions are developed as follows:

RQ1: Does UGC Positively Affect Brand Equity Dimensions of the Telecom Operator Subscribers Are Subscribed to?

- RQ1a: Does UGC positively affect subscribers' brand awareness of the telecom operator's brand they are subscribed to?
- RQ1b: Does UGC positively affect subscribers' brand associations of the telecom operator they are subscribed to?
- RQ1c: Does UGC positively affect subscribers' brand perceived quality of the telecom operator they are subscribed to?
- RQ1d: Does UGC positively affect subscribers' brand loyalty to the telecom operator's brand they are subscribed to?

RQ2: Do Brand Equity Dimensions Affect Subscribers' Purchase Intention of the Telecom Operator They Are Subscribed to?

- RQ2a: Does brand awareness positively affect subscribers' purchase intention?
- RQ2b: Does brand associations positively affect subscribers' purchase intention?
- RQ2c: Does brand perceived quality positively affect subscribers' purchase intention?
- RQ2d: Does brand loyalty positively affect subscribers' purchase intention?

RQ3: Do Brand Equity Dimensions Mediate the Relationship between UGC and Subscribers' Purchase Intention?

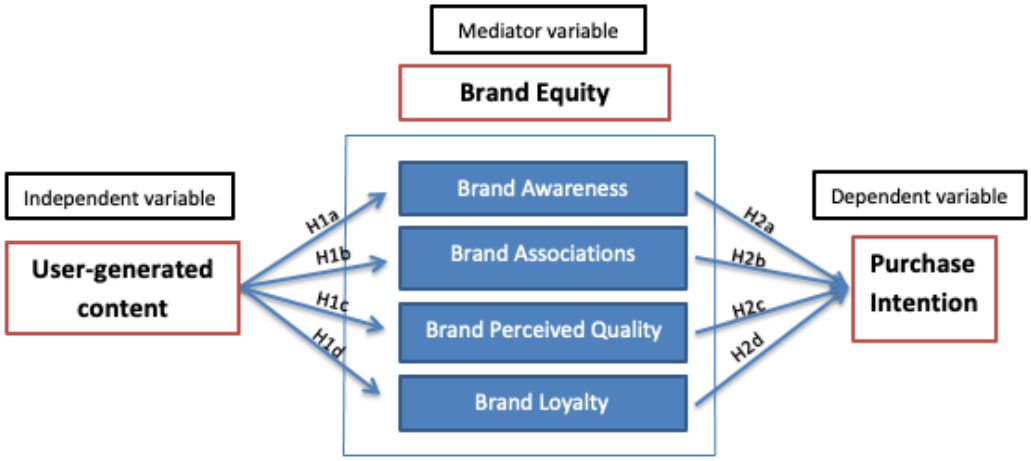
2.9 Theoretical Framework

The Stimulus-Organism-Response (S-O-R) model is developed by Mehrabian and Russel (1974) in the environmental psychology context, postulates that the external environmental inputs (Stimuli) influence individuals' cognitive and affective reactions (Organism), causing individuals' behavioral outcomes (Response) (Donovan and Rositer, 1982, as cited in Wei *et al.*, 2023). The S-O-R Model is frequently used to investigate the behavioral response of social media users (Aljuhmani *et al.*, 2022; Wei *et al.*, 2023). In the online social media environment, stimuli can be comprehended as the information received through social media platforms that affect individuals' reactions (Wei *et al.*, 2023). The organism can also be explained as the processes that impact consumers' intentions and behavioral responses (Aljuhmani *et al.*, 2022).

Finally, the response is any verbal, non-verbal, and behavioral responses of individuals' e.g., word-of-mouth communication (Aljuhmani *et al.*, 2022).

Accordingly, the following proposed model is developed based on the S-O-R model, where the online UGC that users are exposed to is the stimuli (S), brand equity dimensions are the internal processes or organism (O), which cause purchase intention and subsequent behavior (R).

Figure 1: Proposed Research Model



Adapted from Gaber and ElSamadicy (2021)

3. Research Methodology

The study employs a post-positivism research philosophy as the variables under investigation are social constructs that can be understood by considering the subjective experiences, ideas, and perceptions of individuals (Kabo *et al.*, 2023). Consequently, a deductive reasoning approach is employed to test the correlational relationship between UGC and purchase intention mediated by the dimensions of brand equity.

This study employs a quantitative research strategy and gathers primary data through the online self-administered questionnaires, which are developed on Google Forms and electronically distributed to respondents by disseminating the survey link via e-mail and posting the link on various social media platforms. Data are gathered at a one-time interval for a period of one month and a half.

3.1 Sampling Design

3.1.1 Population and Sample Unit

The targeted population comprises all Egyptian subscribers to the mobile network operators. The sample is drawn from the 95 million subscribers to mobile network operators (MCIT, 2021). The unit of analysis is the Egyptian subscribers to mobile network operators with a presence and social media platforms and/or have an e-mail address.

3.1.2 Sample Size

A sample size of 420 respondents is recruited for this study and 400 responses are received, achieving a response rate of 95%.

3.1.3 Sampling Technique

Due to time and cost constraints, non-probability convenience sampling is employed for its quick and less expensive nature, in which the most easily accessible individuals are chosen as subjects by the researcher (Sekaran & Bougie, 2016).

3.2 Measurements and Scaling Techniques

3.2.1 Questionnaire Design

An online self-administered questionnaire as presented in the **Appendix** consists of structured, close-ended questions in six sections. The first section addresses participants' demographics and statements to measure UGC. The following five sections addresses all four dimensions of brand equity and purchase intention by applying a "Five-Point Likert Scale" varying from 1 = Strongly Disagree to 5 = Strongly Agree.

3.3 Instruments Measurement Development

All scales are adopted from prior literature and adjusted to suit the telecommunications industry as presented in **Table 1**:

Table 1: Items of the Questionnaire

Variables	Items	Source
User-Generated Content	**UGC 1.** I am satisfied with the content generated by other users on social media platforms about this mobile network operator brand **UGC 2.** The level of the content generated by other users on social media platforms about this mobile network operator brand meets my expectations **UGC 3.** The content generated by other users on social media platforms about the brand of this mobile network operator is very attractive **UGC 4.** The content generated by other users on social media platforms about the brand of this mobile network operator performs well, when compared with other mobile network operators	Sadek *et al.* (2018)
Brand Awareness	**BA 1.** I am aware of the brand of this mobile network operator **BA 2.** When I think of mobile network operators, this mobile network operator is one of the brands that come to mind **BA 3.** I can recognise the brand of this mobile network operator among other competing mobile network operators **BA 4.** I know the brand of this mobile network operator very well **BA 5.** The brand of this mobile network operator is very familiar to me **BA 6.** I can quickly recall this brand	Sadek et al. (2018)
Brand Associations	**BAs 1.** I usually recognise some features of this mobile network operator. **BAs 2.** I can easily recall the logo and slogan of this mobile network operator. **BAs 3.** It's easy to recall the brand of this mobile network operator in my mind. **BAs 4.** This mobile network operator possesses some unique images. **BAs 5.** Subscribers who use this mobile network operator have unique characteristics. **BAs 6.** This mobile network operator has a unique positioning. **BAs 7.** This mobile network operator has a positive image in the minds of its subscribers.	Gaber and ElSamadicy (2021)

Brand Perceived Quality	**BPQ 1.** This mobile network operator possesses a high quality when compared to other mobile network operators. **BPQ 2.** This mobile network operator is considered better than other mobile network operators. **BPQ 3.** This mobile network operator provides unique services if we compare it to other mobile network operators in Egypt. **BPQ 4.** This mobile network operator provides a unique quality to its subscribers. **BPQ 5.** The mobile network operator's services have a sense of excellence. **BPQ 6.** The mobile network operator's services impress me every time I use it.	Gaber and ElSamadicy (2021)
Brand Loyalty	**BL 1.** I am satisfied with this mobile network operator brand that appeared on social media platforms **BL 2.** I usually use this mobile network operator brand as my first choice in comparison with the other mobile network operators. **BL 3.** I would recommend the brand of this mobile network operator to others through social media platforms	Bilgin (2018)
Purchase Intention	**PI 1.** I would subscribe to the services and/or purchase the products provided by this mobile network operator rather than services and/or products offered by other mobile network operators available **PI 2.** I am willing to recommend that others subscribe to the services and/or purchase the products provided by this mobile network operator **PI 3.** I intend to continue subscribing to the services and/or purchasing the products offered by this mobile network operator in the future	Poturak and Softic (2019)

3.4 Data Analysis Techniques

Structural Equation Modeling (SEM) is employed to investigate the relationship between dependent and independent variables, which are mediated by the four brand equity dimensions. The reliability and pearson correlation tests are utilized on the obtained data before using SEM. The reliability test determines the stability of the data collection method used to measure the constructs and indicates the internal consistency between items used to measure a scale. Pearson correlation test measures the direction and significance of the relationship between scales. SPSS 25 is utilized to analyze the obtained data. Finally, SEM is conducted using AMOS 25 to test the research hypotheses.

4. Data Analysis

4.1 Reliability Test

Cronbach's alpha < 0.60 = poor, within 0.70 = acceptable, while > 0.80 = reliable (Sekaran & Bougie, 2016).

Table 2: Reliability Statistics (Cronbach's Alpha)

Reliability Statistics		
Item	**Cronbach's Alpha**	**N. of Items**
User-Generated Content	0.852	4
Brand Awareness	0.899	6
Brand Associations	0.814	7
Brand Perceived Quality	0.898	6
Brand Loyalty	0.830	3
Purchase Intention	0.877	3

As presented in **Table 2**, it can be inferred that all the scales have a high degree of reliability since the Cronbach's alpha for the 6 scales ranges between 0.814 and 0.899.

4.1.1 Descriptive Statistics

Table 3: Sample Demographics

		Count	Column N %
What is your Gender?	Female	301	75.3%
	Male	99	24.8%
What is your Age?	18-23	200	50.0%
	24-29	59	14.8%
	30-35	22	5.5%
	Less than 18	46	11.5%
	More than 35	73	18.3%
What is your Highest Education Level?	Bachelor's degree	183	45.8%
	High School	130	32.5%
	Other	21	5.3%
	Postgraduate degree	66	16.5%
What is your Mobile Network Operator?	Etisalat	66	16.5%
	Orange	52	13.0%
	Vodafone	248	62.0%
	WE	34	8.5%
What is your Monthly Income in Egyptian Pounds?	10,000-15,000	44	11.0%
	15,000-20,000	15	3.8%
	20,000-25,000	14	3.5%
	30,000-35,000	15	3.8%
	5,000-10,000	81	20.3%
	Less than 5,000	205	51.3%
	More than 35,000	26	6.5%

Table 3 explains the demographics of the 400 respondents. The sample demographics indicate that 75.3% of respondents are females, 50% are aged 18 to 23 years, 45.8/49% have a bachelor's degree, and 62% are subscribed to Vodafone as their mobile network operator. Finally, 51.3% have a monthly income of less than EGP 5,000.

Table 4: Descriptive Statistics

Descriptive Statistics (N = 400)				
Item	**Mean**	**Std. Deviation**	**CV (%)**	**Corrected Item-Total Correlation**
User-Generated Content				
UGC 1	3.59	0.922	26%	0.708
UGC 2	3.48	0.965	28%	0.763
UGC 3	3.44	1.177	34%	0.680
UGC 4	3.61	0.959	27%	0.644
Brand Awareness				
BA 1	4.19	0.902	22%	0.699
BA 2	4.27	0.897	21%	0.751
BA 3	4.24	0.979	23%	0.755
BA 4	4.08	0.905	22%	0.704
BA 5	4.13	0.900	22%	0.712
BA 6	4.24	0.833	21%	0.732

Brand Associations				
BAs 1	4.10	0.883	22%	0.506
BAs 2	4.18	0.855	20%	0.550
BAs 3	4.20	0.919	22%	0.577
BAs 4	3.80	0.941	25%	0.627
BAs 5	3.42	1.025	30%	0.560
BAs 6	3.73	0.987	26%	0.610
BAs 7	3.39	1.195	35%	0.473
Brand Perceived Quality				
BPQ 1	3.83	0.992	26%	0.694
BPQ 2	3.84	0.979	26%	0.644
BPQ 3	3.60	0.955	27%	0.744
BPQ 4	3.65	0.966	26%	0.797
BPQ 5	3.68	1.010	27%	0.783
BPQ 6	3.50	1.088	31%	0.686
Brand Loyalty				
BL 1	3.66	0.999	27%	0.689
BL 2	3.84	0.998	26%	0.680
BL 3	3.64	1.065	29%	0.697
Purchase Intention				
PI 1	3.65	0.982	27%	0.770
PI 2	3.68	0.992	27%	0.780
PI 3	3.70	1.029	28%	0.741

As presented in **Table 4**, the mean for the four statements of UGC 1, UGC 2, UGC 3, and UGC 4 are 3.59, 3.48, 3.44, and 3.61 respectively, indicating that UGC 1 and UGC 4 have an overall direction toward agreement and UGC 2 and 3 are directed toward neutral. The mean for brand awareness ranges between 4.08 to 4.27, showing an overall direction to the agreement in responses. The mean for each of the seven items of brand associations are BAs 1 (4.10), BAs 2 (4.18), BAs 3 (4.20), BAs 4 (3.80), BAs 5 (3.42), BAs 6 (3.73) and BAs 7 (3.39), revealing that responses vary between the neutrality and agreement. The mean for brand perceived quality ranges from 3.50 to 3.84, indicating a direction toward agreement. Similarly, the mean for brand loyalty (3.64, 3.66, 3.84) and purchase intention (3.65, 3.68, 3.70) show a direction to agreement. Conclusively, the overall direction of the items used for each scale is directed toward the agreement in responses.

The standard deviation of all items is low, revealing a low level of dispersion to the values of the mean and that data are more clustered around the mean.

The CV for the four items of UGC is 26%, 28%, 34%, and 27% respectively. The CV for UGC 1 is 26%, indicating that for every 100 respondents, 26 respondents disagree about the presented value of the mean (UGC 1 = 3.59). In other words, the level of disagreement is 26% and the level of agreement is 76% of the presented mean value. Conclusively, the CV for all the items ranges from 20% to 35%, showing a low level of deviation in responses. This indicates a high degree of reliability.

Lastly, the corrected item-total correlation ranges from 0.473 (BAs 7) to 0.797 (BPQ 4), implying a high level of correlation between all items used to measure a scale.

4.2 Pearson Correlation Test

A perfect positive correlation = +1, while a perfect negative correlation = -1. (Sekaran & Bougie, 2016). A correlation is significant at a P-value < 0.05.

Table 5: Correlation Matrix between UGC & Brand Equity Dimensions

Correlations						
		User-Generated content	Brand Awareness	Brand Associations	Brand Perceived Quality	Brand Loyalty
User-Generated Content	Pearson Correlation	1	0.283**	0.606**	0.613**	0.736**
	Sig.(2-tailed)		0.000	0.000	0.000	0.000
	N	400	400	400	400	400

Table 6: Correlation Matrix between UGC & Purchase Intention

Correlations			
		User-Generated Content	Purchase Intention
User-Generated Content	Pearson Correlation	1	0.611**
	Sig. (2-tailed)		0.000
	N	400	400

Table 7: Correlation Matrix between Purchase Intention & Brand Equity Dimensions

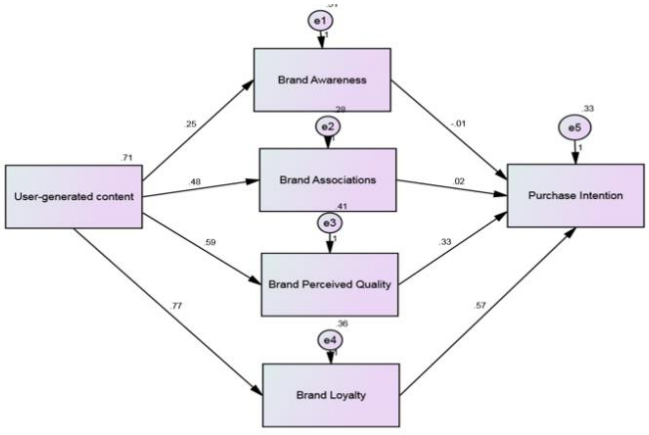
Correlations						
		Purchase Intention	Brand Awareness	Brand Associations	Brand Perceived Quality	Brand Loyalty
Purchase Intention	Pearson Correlation	1	0.336**	0.557**	0.700**	0.765**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	400	400	400	400	400

As presented in **Table 5,** all correlation coefficients show a perfect positive correlation between UGC and brand equity dimensions, which are awareness (0.283**), associations (0.606**), perceived quality (0.613**), and loyalty (0.736**). All correlations are significant at p-value < 0.05.

Table 6 indicates a perfect positive correlation between UGC and purchase intention (0.611**). The correlation is also significant at a p-value < 0.05

Table 7 indicates a perfect positive correlation between purchase intention and brand awareness (0.336**), associations (0.557**), perceived quality (0.700**), and loyalty (0.765**) with a correlation at p-value < 0.05.

Figure 2: Initial Model



4.3 Mediation Test/Structural Equation Model (SEM)

Since the reliability of the scales is proved and the model is significant as well, SEM is employed for testing the hypotheses and the mediation effect of brand equity dimensions on the relationship between the independent and dependent variables. *The SEM is employed to test the subsequent hypotheses:*

- H1a: UGC positively affects subscribers' brand awareness of the telecom operator's brand they are subscribed to.
- H1b: UGC positively affects subscribers' brand associations of the telecom operator they are subscribed to.
- H1c: UGC has a positive effect on subscribers' brand perceived quality of the telecom operator they are subscribed to.
- H1d: UGC positively affects subscribers' brand loyalty to the telecom operator's brand they are subscribed to.
- H2a: Subscribers' brand awareness of the telecom operator's brand they are subscribed to positively affects their purchase intention.
- H2b: Subscribers' brand associations of the telecom operator they are subscribed to positively affect their purchase intention.
- H2c: Subscribers' brand perceived quality of the telecom operator they are subscribed to positively affects their purchase intention.
- H2d: Subscribers' brand loyalty to the telecom operator's brand they are subscribed to positively affects their purchase intention.
- H3: Brand equity dimensions mediate the relationship between UGC and subscribers' purchase intention.

Table 8: Unstandardized Estimate, Standardized Estimate, S.E., C.R., and P-value of the Initial Model

			Unstandardized Estimate	Standardized Estimate	S.E.	C.R.	P
Brand Awareness	<---	X	.250	.283	.042	5.884	***
Brand Associations	<---	X	.485	.606	.032	15.224	***
Brand Perceived Quality	<---	X	.593	.613	.038	15.515	***
Brand Loyalty	<---	X	.772	.736	.036	21.725	***
Purchase Intention	<---	Brand Awareness	-.009	-.007	.040	-.222	.824
Purchase Intention	<---	Brand Associations	.016	.012	.049	.336	.737
Purchase Intention	<---	Brand Perceived Quality	.331	.304	.040	8.194	***
Purchase Intention	<---	Brand Loyalty	.575	.572	.039	14.802	***

X= UGC

Standardized Estimate = Measures the Degree of Significance between X and Y (Brand Equity Dimensions)

As presented in **Table 8**, all standardized and unstandardized regression weights show that path coefficients are significant (P-value < 0.001) except the coefficient from brand awareness to purchase intention and from brand associations to purchase intention (P-value > 0.001). Furthermore, UGC has a significant effect on brand awareness, associations, perceived quality, and brand loyalty. Also, brand perceived quality and loyalty have a significant effect on purchase intention, while awareness and associations have an insignificant effect on purchase intention.

To ensure the significance of the initial model presented in **(Figure 2),** the model fit is tested to determine whether to accept the initial model or to adjust it.

Table 9: Initial and Final Model Fit Indices

Initial Model	Final Model
Chi-square = 463.738 Probability level = .000 Degrees of freedom = 7	Chi-Square = 1.939 Probability Level = .164 Degrees of Freedom = 1
Goodness-of-Fit Indices	
CMIN/DF = 66.248, RMR = .106, GFI = .703, AGFI = .109, TLI = .370, CFI = .706, RMSEA = .404	CMIN/DF = 1.939, RMR = .005, GFI = .998, AGFI = .966, TLI = .991, CFI = .999, RMSEA = .049

Table 9 shows several model fit indices to measure the model fitness to the sample data. *The following criteria show when a fit index is considered a good fit for the sample data:*

1. **Probability Level** = acceptable if ≥ **0.05** (Suhr, 2006)
2. **CMIN/DF** = acceptable level is ≤ **3** and ≤ **5** (Moss *et al.*, 2015)
3. **Goodness-of-Fit GFI** = acceptable if ≥ **0.9** (Hooper, 2008)
4. **Adjusted Goodness-of-Fit AGFI** = acceptable if ≥ **0.90** (Hooper, 2008)
5. **Comparative Fit Index CFI** = acceptable if ≥ **0.90** (Hooper, 2008)
6. **Tucker-Lewis Index TLI** = acceptable if ≥ **0.90** (Hooper, 2008)
7. **Root Mean Square Residual RMR** = acceptable if ≤ **0.05** and ≤ **0.07** (Hooper, 2008)
8. **Root Mean Squared Error of Approximation RMSEA** = acceptable if ≤ **0.05** (Hooper, 2008)

Table 9. shows that Chi-square = 463.738, df= 7, probability level = .000, CMIN/DF = 66.248, RMR = .106, GFI = .703, AGFI = .109, TLI = .370, CFI = .706, RMSEA = .404. The chi-square and probability level are not important since the sample size (400) is considered a large sample.

Since the goodness-of-fit indices do not follow the previous criteria stated, it can be inferred that the initial model is not acceptable and is not a good fit for the sample data. Accordingly, modification is required for the proposed model to have a better fit for the sample data.

Table 10: Unstandardized Estimate, Standardized Estimate, S.E., C.R., P-value of the Final/SEM Model

			Unstandardized Estimate	Standardized Estimate	S.E.	C.R.	P
Band Awareness	<---	X	.250	.283	.042	5.884	***
Band Associations	<---	X	.485	.606	.032	15.224	***
Band Perceived Quality	<---	X	.593	.613	.038	15.515	***
Band Loyalty	<---	X	.772	.736	.036	21.725	***
Purchase Intention	<---	Band Awareness	-.009	-.007	.051	-.172	.864
Purchase Intention	<---	Band Associations	.016	.012	.072	.228	.820
Purchase Intention	<---	Band Perceived Quality	.331	.289	.056	5.906	***
Purchase Intention	<---	Band Loyalty	.575	.545	.052	11.154	***

After the modification to the model using SEM, **Table 9** shows that Chi-square = 1.939, df = 1, Probability level = .164, CMIN/DF = 1.939, RMR = .005, GFI = .998, AGFI = .966, TLI = .991, CFI = .999, RMSEA = .049. The fit indices of the final model presented in **(Figure 3)** are adequate and good fit for the sample data.

Table 10 shows that after the modifications of the initial model, all path coefficients yield the same results. All path coefficients are significant at P-value < 0.001, while the path coefficients from brand awareness to purchase intention and from brand associations to purchase intention are statistically insignificant at P-value > 0.001. The standardized regression weights show that X has a .283/28% significance on brand awareness, .606/60% on brand associations, .613/61% on perceived quality, and .736/73% on brand loyalty. While brand perceived quality is .289/28% significant on purchase intention and brand loyalty is .545/54% significant on purchase intention.

Table 11: Squared Multiple Correlations (R^2)

	Estimate
Brand Loyalty	.542
Brand Perceived Quality	.376
Brand Associations	.367
Brand Awareness	.080
Purchase Intention	.624

In Table 11, the R^2 of brand loyalty is .542, showing that 54.2% of the change in loyalty is caused by UGC. The R^2 of brand perceived quality is .376, indicating that 37.6% of the change in brand perceived quality is triggered by UGC. Also, the R^2 of the brand associations is .367, showing that 36.7% of the change in associations is caused by UGC. While, the R^2 of brand awareness is .080, indicating that only 8% of the change in brand awareness is triggered by UGC. Lastly, the R^2 of purchase intention is .624, showing that 62.4% of the change in purchase intention is caused by brand perceived quality and loyalty as awareness and associations have insignificant effect on purchase intention.

Table 12: Standardized Total Effects (Sum of Direct & Indirect Effects between Variables)

	X	Brand Loyalty	Brand Perceived Quality	Brand Associations	Brand Awareness
Brand Loyalty	.736	.000	.000	.000	.000
Brand Perceived Quality	.613	.000	.000	.000	.000
Brand Associations	.606	.000	.000	.000	.000
Brand Awareness	.283	.000	.000	.000	.000
Purchase Intention	.584	.545	.289	.012	-.007

Table 12 shows that **X/UGC** is significant on all the mediator variable dimensions and purchase intention. The total effects of **X** on awareness, associations, perceived quality, loyalty, and purchase intention are .283/28%, .606/60.6%, .613/61.3%, .736/73.6%, and .584/58.4% respectively. It is important to identify whether the 58.4% impact of UGC on purchase intention is a direct or indirect effect, which can be inferred from **Table 13** and **Table 14**.

Table 13: Standardized Direct Effects

	X	Brand Loyalty	Brand Perceived Quality	Brand Associations	Brand Awareness
Brand Loyalty	.736	.000	.000	.000	.000
Brand Perceived Quality	.613	.000	.000	.000	.000
Brand Associations	.606	.000	.000	.000	.000
Brand Awareness	.283	.000	.000	.000	.000
Purchase Intention	.000	.545	.289	.012	-.007

Table 13 shows that **X/UGC** directly affects each of the brand equity dimensions with no direct effect on purchase intention. Likewise, brand loyalty (.545/54.5%) and brand perceived quality (.289/28.9%) directly affect purchase intention, while awareness and associations have insignificant effect on purchase intention.

Table 14: Standardized Indirect Effects

	X	Brand Loyalty	Brand Perceived Quality	Brand Associations	Brand Awareness
Brand Loyalty	.000	.000	.000	.000	.000
Brand Perceived Quality	.000	.000	.000	.000	.000
Brand Associations	.000	.000	.000	.000	.000
Brand Awareness	.000	.000	.000	.000	.000
Purchase Intention	.584	.000	.000	.000	.000

Table 14 shows that **X/UGC** has a direct significant effect on brand equity dimensions, while it has a .584/58.4% indirect effect on purchase intention. An indirect effect indicates that UGC has an indirect significant effect on purchase intention mediated by the brand equity dimensions.

After modification to the initial model, the final model presented in (**Figure 3**) has been proposed. The model thus has a better fit for the sample data and shows the mediation effect between variables.

The results show that UGC has a direct significant effect on awareness, associations, perceived quality, and loyalty. Thus, H1a, H1b, H1c and H1d are supported. H2 is partially accepted. Brand awareness and associations do not have significant effect on purchase intention, which rejects H2a and H2b. While, brand perceived quality and loyalty have direct significant effect on subscribers' purchase intention, which supports H2c and H2d. Furthermore, H3 is partially accepted as subscribers' perceived quality and loyalty are the only significant mediators that affect the relationship between UGC and purchase intention.

These research findings indicate that UGC has the strongest direct effect on brand loyalty (.736) more than perceived quality (.613), associations (.606), and awareness (.283) of the telecom operator's brand that subscribers are subscribed to. While, UGC had an indirect effect on subscribers' purchase intention (.584) to the telecom operator's brand that subscribers are subscribed to. Finally, subscribers' brand loyalty (.545) and perceived quality (.289) have a strong direct effect on their purchase intention, while brand awareness (-.007) and brand associations (.012) have no significant impact on purchase intention on their mobile network operator's brand.

Figure 3: Final Model (SEM Model)

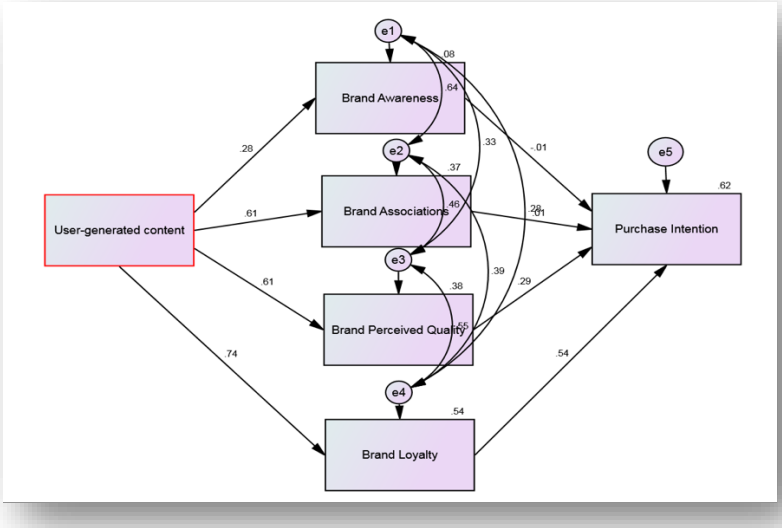


Table 15: Hypotheses Results

Hypotheses	Results
H1: UGC positively affects brand equity dimensions of the telecom operator subscribers are subscribed to.	Accepted
H1a: UGC positively affects subscribers' brand awareness of the telecom operator's brand they are subscribed to.	Accepted
H1b: UGC positively affects subscribers' brand associations of the telecom operator they are subscribed to.	Accepted
H1c: UGC positively affects subscribers' brand perceived quality of the telecom operator they are subscribed to.	Accepted
H1d: UGC positively affects subscribers' brand loyalty to the telecom operator's brand they are subscribed to.	Accepted
H2: Brand Equity Dimensions positively affects subscribers' purchase intention to the telecom operator they are subscribed to.	Partially Accepted
H2a: Subscribers' brand awareness of the telecom operator's brand they are subscribed to positively affects their purchase intention.	Rejected
H2b: Subscribers' brand associations of the telecom operator they are subscribed positively affects their purchase intention.	Rejected
H2c: Subscribers' brand perceived quality of the telecom operator they are subscribed positively affects their purchase intention.	Accepted
H2d: Subscribers' brand loyalty to the telecom operator's brand they are subscribed positively affects their purchase intention.	Accepted
H3: Brand equity dimensions mediate the relationship between UGC and subscribers' purchase intention.	Partially Accepted

4.4 Discussion and Conclusion

The study aims to investigate the effect of user-generated content on the brand equity dimensions and purchase intention among Egyptian telecom operators' subscribers.

The findings reveal that UGC positively affects all brand equity dimensions, supporting the results of prior empirical research (e.g., Sijoria *et al.*, 2018; Augusto & Torres, 2018; ElDallal *et al.*, 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021; Perrera *et al.*, 2023; Wei *et al.*, 2023). The premise is that consumers perceive

the online content generated by other users as an unbiased source of brand information. Also, UGC impacts brand equity dimensions by increasing the consumers' social brand engagement and UGC possesses a strong informative and persuasive influence on brand equity dimensions.

However, the findings of ElDallal *et al*. (2018) in the FMCGs industry show that UGC has no direct impact on brand perceived quality and loyaltyUGC negatively impacts awareness and associations, given that the impact of the same research variables may differ depending on the industry under investigation and that consumers do not rely on UGC for brand quality evaluations.

Importantly, the findings of this study show that only brand perceived quality and loyalty mediate the relationship between UGC and purchase intention, contradicting the findings in the airline industry which reveal that UGC significantly affects purchase intention mediated by all brand equity dimensions (Gaber & ElSamadicy, 2021).

The findings contradict previous studies which indicate that all brand equity dimensions positively affect purchase intention (Cobb-walgren, 1995; Chen & Chang, 2008; Foroudi *et al*., 2018; Poturak & Softic, 2019; Gaber & ElSamadicy, 2021; Khan *et al*., 2023; Wei *et al*., 2023).

4.5 Theoretical Implications

There is rising attentiveness to the usage of social media platforms in telecom operators' marketing approaches to build sustainable relationships with subscribers (Abu-Rumman & Alhadid, 2014; Amoako *et al*., 2019; Kar, 2020). Furthermore, 45% of telecom subscribers interact with others through UGC and 49% establish purchase intention because of UGC's perceived credibility, which can thus impact the telecom operator's brand equity and subscribers' purchase intention (Chang & Fan, 2017; Amoako *et al*., 2019). Moreover, studies reveal that brand equity consistently impacts consumers' intention to purchase (Wei *et al*., 2023). The users' access to online UGC is prominent in influencing their awareness, perceptions of the images, and quality of a brand. Thus, developing a brand's value in the market (Nguyen & Tran, 2023). However, there is limited research into the effect of UGC on brand equity dimensions and purchase intention in the Egyptian telecommunications sector. This study enhances the knowledge of how UGC impacts brand equity dimensions and purchase intention in the Egyptian telecom sector.

4.6 Managerial Implications

The rapid growth of social media platforms and the power that consumers are now possessing for generating any piece of brand-related content have triggered brands to be competitive and differentiated in the market. Accordingly, this study provides new insights for telecom operators' marketers of the significance of UGC in constructing or destructing a brand's equity and improving or deteriorating subscribers' purchase

intention. The findings inform marketers that perceived quality and loyalty have a greater impact on purchase intention than brand awareness and associations.

Since UGC shows a prominent role in enhancing brand equity and increasing subscribers purchase intention, marketers can create an online social community for their subscribers to provide feedback and engage with the brand (Gaber & ElSamadicy, 2021). Additionally, marketers can use social media platforms to respond to subscribers' inquiries and address any complaints professionally. Marketers are thus encouraged to enhance customer engagement on social media by focusing on creating content that can increase the positive online UGC created about their brand (Gaber & ElSamadicy, 2021). Furthermore, marketers can focus on the negative online UGC created about their brands and attempt to proactively resolve it with subscribers to make them feel that their voices are being heard and that the brand is keen on building relationships with them. Thus, building relationships with subscribers will result in higher brand perceived quality and loyalty and increased purchase intention.

4.7 Research Limitations and Suggestions for Future Research

The study focusses on UGC; however, there is another type of social media content "firm-created content". In addition, to ensure the accuracy of the results attributed to the Egyptian telecommunications industry, this study employs convenience sampling which includes only on a few governorates in Egypt.

Since the study examines the effect of UGC on brand equity dimensions and purchase intention, future studies can further examine the impact of both user-generated content and firm-created content on brand equity and purchase intention in the Egyptian telecom sector. Moreover, future studies can examine a larger sample size and include all Egyptian governorates to ensure the accuracy and comprehensiveness of the results in the Egyptian context. Finally, future studies can examine the impact of UGC in the Egyptian telecom sector on variables other than purchase intention, such as brand attitude, market share, or premium pricing.

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Appendix
Questionnaire Design

User-Generated Content

- **G1.** I am satisfied with the content generated by other users on social media platforms about this mobile network operator brand
- **H1.** The level of the content generated by other users on social media platforms about this mobile network operator brand meets my expectations
- **I1.** The content generated by other users on social media platforms about the brand of this mobile network operator is very attractive
- **J1.** The content generated by other users on social media platforms about the brand of this mobile network operator performs well, when compared with other mobile network operators

Brand Equity Dimensions
Dimension 1. Brand Awareness

- **K1.** I am aware of the brand of this mobile network operator
- **L1.** When I think of mobile network operators, this mobile network operator is one of the brands that come to mind
- **M1.** I can recognise the brand of this mobile network operator among other competing mobile network operators
- **N1.** I know the brand of this mobile network operator very well
- **O1.** The brand of this mobile network operator is very familiar to me
- **P1.** I can quickly recall this brand

Dimension 2. Brand Associations

- **Q1.** I usually recognise some features of this mobile network operator.
- **R1.** I can easily recall the logo and slogan of this mobile network operator.
- **S1.** It's easy to recall the brand of this mobile network operator in my mind.
- **T1.** This mobile network operator possesses some unique images.
- **U1.** Subscribers who use this mobile network operator have unique characteristics.
- **V1.** This mobile network operator has a unique positioning.
- **W1.** This mobile network operator has a positive image in the minds of its subscribers.

Dimension 3. Brand Perceived Quality

- **X1.** This mobile network operator possesses a high quality when compared to other mobile network operators.
- **Y1.** This mobile network operator is considered better than other mobile network operators.
- **Z1.** This mobile network operator provides unique services if we compare it to other mobile network operators in Egypt.
- **AA1.** This mobile network operator provides a unique quality to its subscribers.
- **AB1.** The mobile network operator's services have a sense of excellence.
- **AC1.** The mobile network operator's services impress me every time I use it.

Dimensions 4. Brand Loyalty

- **AD1.** I am satisfied with this mobile network operator brand that appeared on social media platforms
- **AE1.** I usually use this mobile network operator brand as my first choice in comparison with the other mobile network operators.
- **AF1.** I would recommend the brand of this mobile network operator to others through social media platforms

Purchase Intention

- **AG1.** I would subscribe to the services and/or purchase the products provided by this mobile network operator rather than services and/or products offered by other mobile network operators available
- **AH1**. I am willing to recommend that others subscribe to the services and/or purchase the products provided by this mobile network operator
- **AI1.** I intend to continue subscribing to the services and/or purchasing the products offered by this mobile network operator in the future