THE INFLUENCE OF INSTAGRAM LIKES ON CONSUMER ATTITUDE AND PURCHASE INTENTION OF E-COMMERCE USERS IN BOSNIA AND HERZEGOVINA

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Abstract

The popularity of social media for business and marketing is on a definite rise. Although researchers are increasingly studying various aspects of SNS (social networking sites) marketing and e-commerce, there are still few studies into the impact of Instagram due to the relatively new nature of the application. Therefore, the main objective of this study is to provide an analysis of the statistical significance of Instagram likes on consumer attitude and purchase intention on a linked e-commerce site. The secondary objective is to compare demographic data based on age, gender, and educational categories of the respondents. The final aim is to bridge the gap in literature and provide practical implications which would be useful to professionals in brand and marketing management. Based on a systematic literature review, first order structural equation model was proposed and tested. The empirical data was derived from a survey of 166 subjects in Bosnia and Herzegovina. Upon the collection of data, factor analysis was conducted in SPSS to ensure the validity and reliability through items' loadings and Cronbach's Alpha values. Furthermore, the empirical hypothesis testing was conducted in SmartPLS 3 in order to investigate direct effects of variables in the model. The results indicated that there is a significant statistical impact of Instagram likes on consumer attitude and purchase intention. Currently, due to the relatively recent use of the app for business and marketing purposes, there is a very limited amount of research on consumers' involvement and attitude on Instagram and its impact on the likelihood of purchase. Therefore, one can consider the theoretical and practical implications of this study to be evident.

Keywords: consumer attitude, involvement on seller's Instagram, attitude towards the seller's Instagram account, purchase intention, e-commerce, s-commerce, SNS (social networking sites)

JEL: M30, M31, Z13

1. Introduction

Thanks to Instagram Shops, a new feature introduced in May 2020 as a response to the shifting business models caused by the COVID-19 crisis, interactions between sellers and consumers have become far more immediate and immersive. Instagram has enabled companies to increase revenues by getting closer to consumers who can now discover, view, and purchase products directly from the immensely popular social media app. Reports show that there are around 1 billion Instagram users worldwide and a forecast from October 2020 estimates that there would be nearly 1.2 billion users by 2023 (*Instagram*, statista.com, 2021). Social media is an integral part of daily Internet usage and on average internet users spend 145 minutes per day on social media and messaging apps (*Daily Social Media Usage Worldwide*, statista.com, 2021). Out of that, it is reported that Instagram users spend an average of 28 minutes on the platform daily (*How Much Time Do People Spend on Social Media in 2021?*, techjury.com, 2021). With this data in mind, it is evident that Instagram offers an opportunity for companies to get closer to consumers. This opportunity provided by the social media's massive userbases, was seized by marketers, and as of January 2021, Instagram was the second most commonly used social media platform among marketers worldwide, preceded only by the much older Facebook (*Social Media Platforms Used by Marketers 2021*, statista.com, 2021). Therefore, it is of crucial importance for businesses to

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create content in order to place their brands and products on social media and to engage in conversations with consumers in order to involve them with the brand directly. The above usage data indicates that social media can be considered a hotspot for gauging the sentiment of consumers towards a brand or product. More people than ever are using Instagram, and thanks to new developments spurred by digital transformation in the aftermath of the pandemic, marketers have started leveraging this social networking app not only for the purpose of promoting products, but also facilitating commercial transactions by giving a boost to s-commerce, the newest paradigm of e-commerce that unites the benefits of e-commerce and the wide reach of social networking (Bhattacharyya & Bose, 2020).

Therefore, the main objective of this study was to examine the effects of the product popularity on Instagram measured through likes and the resulting consumers' attitude towards the product on purchase intention on the linked e-commerce site. We did so by manipulating the received engagement (the number of likes) to assess its effects on the consumer attitude and subsequent purchase intent. Our research did not yield any previous study of this correlation due to the relatively recent nature of the Instagram Store feature as well as marketers' newly shifted focus on the app as an outcome of the COVID-19 pandemic. The secondary objective was to compare demographics results based on different age, gender, and educational categories of the respondents. The final aim was to bridge the gap in literature by providing data on this topic, which can be of practical use to brand managers and marketing managers alike.

2. Literature Review

2.1 The Rise of Social Networking Sites

The story of social media began already in the 1960s with Stanley Milgram's "six degrees of separation" which later on inspired the first social networking site SixDegrees.com started by Andrew Weinrech in 1997 (Schilling, 2017). Since there was not much to do on the site except inviting and accepting friend requests, SixDegrees was not long-lived, and it shut down in 2000. In March 2003, Jonathan Abrams launched Friendstr, based on a concept quite similar to that of SixDegrees, with a network map of one's friends and acquaintances. The site grew rapidly in popularity, but due to insufficient servers, the loading time was very long and the members started turning to other pages, such as MySpace. It was also founded in 2003, but powered by eUniverse's e-mail users, which pushed its membership rates to 20 million. It was a more versatile platform with a space for blogging, photos, and playing music, which rendered it the most popular social networking site in the world from 2005 to 2008 (Schilling, 2017).

In the meantime, Mark Zuckerberg, Eduardo Saverin, Dustin Moskovitz, and Chris Hughes had launched Facebook in 2004, first only available to Harvard University students and then in 2006 as a general public service. The newfound popularity of social networking sites made it easy to find investors for the company. Furthermore, Facebook had its ear finely tuned to the users' requirements, which led to the creation of features such as social games, product reviews, and self-created groups (Schilling, 2017). The site had better privacy and security features, which made it appealing to the 18–30-year-old crowd, and turned it into number one site in the world for exchanging photos and information. Already in 2007, the company started selling advertising space, and companies started building their own brands on the platform.

In 2006, Jack Dorsey launched Twitter with the purpose of providing space for "microblogging" (Schilling, 2017). By 2015, Twitter already had 288 million average users per month, however, it did not represent a significant threat to Facebook due to its primarily textual nature. Nevertheless, in 2010 a new entrant in the market threatened to usurp both Twitter's and Facebook's throne. Namely, Instagram focused on sharing photos and videos with short textual captions, which made it highly appealing to a young audience. In order to ensure that they do not miss out on this new social networking demographic, Facebook acquired Instagram in 2012.
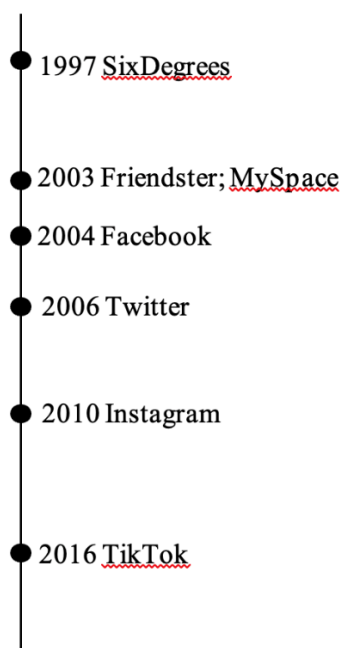
Fig 2.1: *Major social networking sites timeline*

Source: Authors' own work.

Since then, dozens of social networking sites have emerged, however, only a handful have made a significant impact. LinkedIn positioned itself as a more professional and business-oriented networking site. Google launched a number of social networking platforms the most successful of which was Google+ designed to compete directly with Facebook. More recently, in 2016 Chinese start-up company ByteDance launched the currently very popular TikTok, which centers on sharing short videos.

2.2 Instagram Likes

One-click social cues on social networking sites (SNSs), such as the "like", convey positive user opinions and indicate user preference or interest for the liked item (Chang *et al.*, 2020). Therefore, it can be used as an indirect form of recommendation and "a source of social influence" (Bhattacharyya & Bose, 2020). Likes are perceived as a favorable response from the audience; hence it is implied that receiving more likes might be associated with the perception of positive feedback from the followers (Stsiampkouskaya *et al.*, 2021). According to Yang *et al.* (2020), the popularity of Instagram posts will positively affect trust in the posts, which will positively affect the users' attitudes towards the product, and

consequently their purchase intent. Lee *et al.* (2016) claim that the number of likes is positively related to sales volume. Therefore, the more the information and content presented in the post are appealing to the consumers, meaning, the more popular the product, the more they will be interested in eventually purchasing the product.

For the purpose of this research, Instagram likes will be regarded as an indicator of post popularity. These indicators represent independent variables in the study and will be coded as dummy variable, with the purpose of observing the impact on Consumer Attitude and Purchase Intention.

2.3 Consumer Attitude Towards a Product

Wang *et al.* (2019) state that "theory of reasoned action explains that attitude is a psychological tendency to form an evaluation in favor or against a particular object to some degree and that behavior is a function of an individual's attitude" (p. 480). Furthermore, attitude is characterized as the degree to which an individual evaluates a certain behavior or object favorably or unfavorably (Ateş, 2020). Positive consumer attitudes are related to emotional experiences, and hence innovative consumers may follow the emotional decision-making process to adopt certain behaviors (Li *et al.*, 2021). In their study of organic food adoption, Li *et al.* (2021) further suggest that in addition to emotional experiences, consumers rely on knowledge when forming their attitudes. They actively gather information to build their knowledge, which helps them get a better picture and insight into benefits, and form positive attitudes, which eventually result in purchase intent (Li *et al.*, 2021). Therefore, consumer attitude can be characterized as consumer's positive or negative evaluation of a product which is founded on consumer's innate individual attitude, emotional experiences, and gathered knowledge.

In the case of this research, consumer attitude towards a product (or Consumer Attitude) will be regarded as the consumer's positive or negative evaluation of a product.

2.4 Purchase Intention

Munerah, Koay, and Thambiah (2021) define purchase intention within the context of purchasing green products as "the likelihood and willingness to consume the product that has biodegradable features" (p. 3). In the case of Munerah *et al.* (2021), purchase intention denotes consumer's personal willingness to purchase products. Chae *et al.* (2020) note that purchase intention "is highly correlated with the actual purchase behavior of consumers and is a possible index and predictor that the intention of the consumers leads to purchase behavior" (p. 400). Moreover, Chae *et al.* (2020) explaine that purchase intention is consumer's conscientious effort to purchase a brand (p. 400). These findings reveal that purchase intention can be perceived as a predictor of consumer's actual behavior because it is a part of deliberate decision-making process. Medina-Molina *et al.* (2020) explain that "purchase intention is linked with actions which are foreseen or planned for the future" (p. 305). In other words, purchase intention can be regarded as indicator of consumer's willingness to purchase in the future.

Keller *et al.* (2015) claim that purchase intentions "focus on the likelihood of buying the brand or switching to another brand" (p. 335). Furthermore, Keller *et al.* (2015) explain that previous research in psychology showed that "purchase intentions are most likely to predict actual purchase behavior" (p. 335). Additionally, online purchase intention focuses on the willingness of consumers to buy a product via an online transaction (Pavlou, 2003).

In the case of this research, purchase intention will be regarded as consumer's willingness to purchase the product advertised on Instagram.

2.5 Relationship between Instagram Likes and Consumer Attitude

Increasing numbers of consumers visit social media sites to get inspiration for shopping. They use the pictures posted online as a catalogue of what they might want to purchase in the future (Chahal, 2016). Recently, Instagram has been attributed with having the greatest influence on consumers' shopping habits, whereby around 72% of Instagram users' shopping decisions are based on content posted on the app (Yang *et al.*, 2020). According to Yang *et al.* (2020, p.2), "post popularity is a cue corresponding to followers' engagement in the post," which means that "the number of followers who click 'like' or 'share', or who make comments on the original post are determinants of the post popularity". Accordingly, post popularity and the interaction among followers can be a diagnostic cue that the information is trustworthy and reliable, hence increasing the probability of users' trust and positive responses towards the post (Yang *et al.*, 2020). Therefore, on Instagram trust is derived from the interactions among the users and the information presented in the posts and one of the extrinsic cues of trustworthiness is post popularity.

Additionally, there is plenty of empirical evidence suggesting that people tend to adapt their opinions to the majority opinion. Social proof heuristic is a psychological phenomenon whereby individuals' decisions are influenced by the preferences of their peers (Cialdini, 2001). Additionally, attitude transfer hypothesis claims that individuals' attitudes get transferred from one entity to another (Ranganath & Nosek, 2008). According to Asch's experiments (1951; 1955), the participants adopted the majority opinions even when the majority was apparently wrong. According to Schöndienst *et al.* (2012), a large number of people "liking" a product may have a positive impact on an individual's perception regarding the quality of a product. Therefore, it implies that the higher number of likes for a product on Instagram inspires a more positive attitude towards the said product, particularly with regard to the users' trust in the quality of the product.

Based on the literature presented above, we have established the following hypothesis:
H1: The number of likes for a product advertised on Instagram has a statistically significant effect on consumer attitude towards the product on Instagram.

2.6 Relationship between Consumer Attitude towards a Product and Purchase Intention

In their study of the effects of consumer attitude on green purchase intention, Zaremohzzabieh *et al.* (2021) investigate the impact of subjective norms, awareness, consciousness, beliefs, and knowledge on consumer attitude, and hence show that there is an association between consumer attitude and purchase intention. Hung *et al.* (2016) also investigate consumers' attitude and purchase intention in their research on the consumption of processed meat products with natural compounds, and they show that attitude towards the new meat products was the most significant determinant for purchase intention. Moreover, in their exploration of consumer attitudes towards blogger sponsorship and purchase intention, Lu *et al.* (2014) postulate that positive consumer attitudes will directly affect their behavioral intention, and hence form their purchase intention.

According to Ranganath & Nosek (2008), formation of attitude towards an entity is influenced by previously developed attitude towards the same or related entities. Studies have showed that attitude transfer also works in online settings. Thus, Wang *et al.* (2009) demonstrate that initial attitude towards a company's website leads to further attitudinal responses towards the company itself. It has also been shown that when users visit a linked e-commerce site from Facebook, they transfer the attitude formed on Facebook to the linked e-commerce site, which shapes the users' purchasing decisions (Bhattacharyya & Bose, 2020). Therefore, it can be claimed that consumers' attitude towards a product resulting from Instagram interactions will mediate the influence of likes on users' willingness to purchase the product on the linked e-commerce site.

Based on the literature reviewed and presented above, for this study we propose the following hypothesis:
H2: Consumers' attitude towards the product on Instagram has a statistically significant effect on the likelihood of purchasing the product on a linked e-commerce site.

2.7 Relationship between Instagram Likes and Purchase Intention

According to McKnight and Chervany (2001), trust is the attitude that precedes the purchase intent online. On Instagram, trust is derived from the interactions among users and the information presented in the posts. Consumers seek evidence of trustworthiness and, as mentioned before, one of the extrinsic cues of trustworthiness is post popularity. Hence, according to Boyd (2006), if extrinsic cues can engender trust, that trust might increase consumers' positive attitudes towards the product and eventually lead to purchase intent.

As indicated above, a thorough review of literature has showed that there is a correlation between social media "likes" and consumers' attitude towards the product. According to the social proof heuristic, individual's attitudes and actions are influenced by those of others (Cialdini, 2001). Therefore, consumer attitude manifested through Instagram "likes" represents a form of peer opinion, and can act as an influence on prospective buyers. A higher number of "likes" for a product indicates a preference for the product on the part of a larger number of people, which translates into the attitude of trust, which will amplify users' willingness to respond to the call-to-action button and visit the linked e-commerce site (Bhattacharyya & Bose, 2020). Studies further indicate a positive relationship between peer approval and online purchases (Amblee & Bui, 2011). Hence, a higher number of likes, which represent peers' positive attitude towards the product, will increase consumers' willingness to buy the product on the linked e-commerce site.

Based on the literature presented above, we have established the followings hypotheses:
H3: The number of likes for a product advertised on Instagram affects the purchase intention of customers to buy the product on a linked e-commerce site.
H4: Consumer attitude on Instagram plays a mediating role between Instagram likes and Purchase Intention.
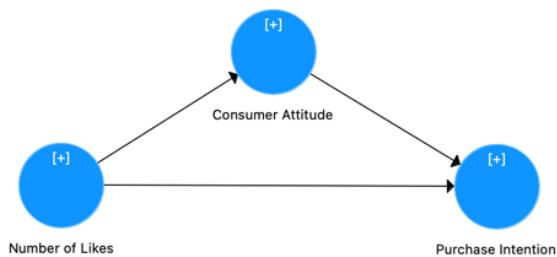
Figure 2.2 *The proposed research model*

Source: Authors' own work.

3. Methodology

3.1 Experimental Design

In order to establish causality among the variables, we constructed a scenario-based controlled experiment, as has been used in previous studies (Bhattacharyya & Bose, 2020). The scenarios used in the experiment simulate the real-life Instagram-driven e-commerce as closely as possible, and hence evoke more realistic responses.

We created two online surveys that expose the participants to Instagram advertisements with a call-to-action button that would take them to the connected e-commerce website. The number of likes was manipulated using two levels: *low* and *high*, in order to examine the impact on the dependent variables. The experiment was conducted so that each participant went through both scenarios in order to establish the causality between the number of likes and the dependent variables. The sequence of scenarios was randomized among subjects. The product chosen for the purpose of the experiment was a power bank - a product that is utilitarian, low-involvement, and gender-neutral in nature, as well as of a nondescript brand, in order to reduce any possible bias.

The respondents accessed the link to the experiment from the social networking groups where it was posted. The surveys were available in English and local languages. The respondents were informed that the purpose of the experiment was to see how and if SNSs facilitate e-commerce transactions and they received general instructions for filling out the survey. They were randomly assigned to one of the two sequences: *low* then *high*, or vice versa.

The following scenario was presented in order to provide context for the experiment: "Imagine you are going on a holiday in the next few days. Before your travel you need to purchase certain travel accessories, specifically, a power bank. After browsing through several online shopping sites, you still have not made a proper decision. Then, as you are scrolling through your Instagram feed, you come across this sponsored ad. It is the exact travel accessory that you were looking for and it is connected to an e-commerce shop which specializes in this kind of equipment, where, if you wish to do so, you can purchase the product. You are requested to carefully go through each of the following scenarios and answer the questions."

3.2 Data Collection

The data was collected online using Google Forms via relevant online groups and forums on social media. In order to measure the variables from the research model, valid and reliable scales were used to determine the measurement instrument which was applied for data collection purposes. The measurement of consumer attitude towards the product relied on the research conducted by Ziamou *et al.* (2003) and Lekowska-White *et al.* (2003), whereas the measurement of purchase intention relied on the research by Rodgers (2004).

The questionnaire simulated a realistic Instagram ad for a particular product, showed in Figure 3.1, with manipulated Likes as either high with 856 likes or low with 92 likes. The respondents were exposed to both scenarios in a randomized order. First, they read the abovementioned context scenario. Then, they were exposed to the Instagram ad construct, followed by a set of statements where they indicated their agreement on a 5-point Likert scale from 1 = "Strongly disagree" to 5 = "Strongly agree".
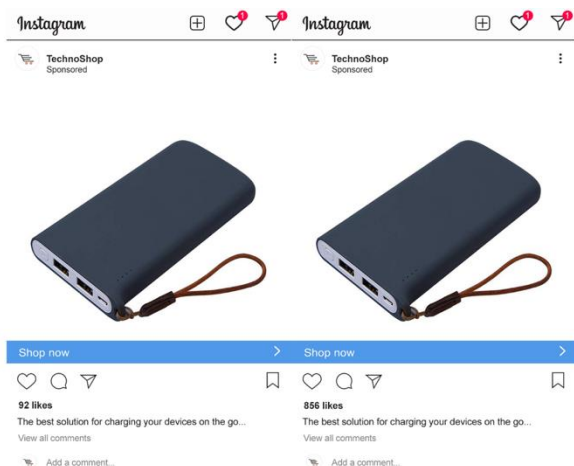
Figure 3.1 *Instagram advertisement constructs "low" and "high"*

Source: Screenshots adjusted by authors.

The distributed questionnaire contained questions in five different categories as follows:
- Questions 1-3: Demographics
- Question 4: Perception of Likes
- Questions 5-9: Consumer Attitude towards Product
- Questions 10-12: Purchase Intention

3.3 Population and Sample

For the purpose of this research, a convenient sampling method was employed, whereby the targeted population consisted of all e-commerce users in the market of Bosnia and Herzegovina (BiH), regardless of age, gender, and other characteristics.

Out of 166 subjects, 105 were female (63.3%) and 61 male (36.7%). The majority of the subjects were between 20 and 40 years of age according to Figure 3.1, and most of them (42.8%) had a Bachelor's degree (Figure 3.3). Each subject filled a two-part survey with a randomly ordered high or low likes input, which yielded a total of 332 records.
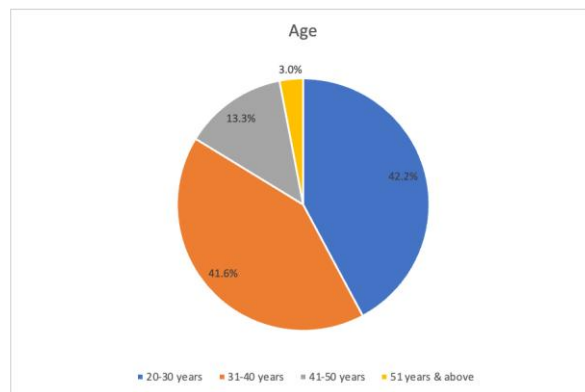

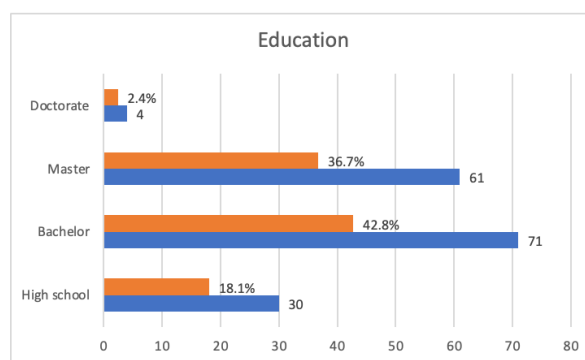Figure 3.2 *Demographics: Age*

Source: Authors' own work.

Figure 3.3 *Demographics: Education*

Source: Authors' own work.

3.4 Statistical Analysis

The causal relationships in the hypothetical model showed in Figure 2.2 were statistically analyzed using Software Package for Social Sciences (SPSS) and SmartPLS 3 software packages. SPSS was used for the descriptive analysis, validity, and reliability testing, whereas SmartPLS 3 was used to conduct the empirical hypothesis testing.

The following steps were performed in order to prepare the structural equations model using SmartPLS 3: (1) Latent variables were created and related indicators assigned to them; (2) The one independent variable was connected to two dependent variables. Number of Likes was related to Consumer Attitude (CA) and Purchase Intention (PI), while Consumer Attitude (CA) was related to Purchase Intention (PI), as presented in Figure 3.3.
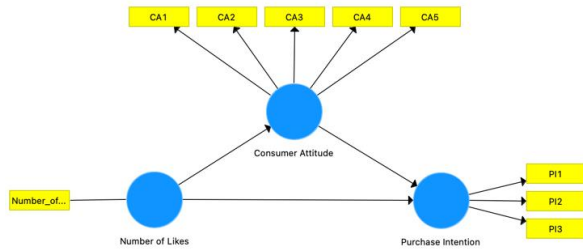
Figure 3.4 *Model in SmartPLS 3*

Source: Authors' own work.

The regular PLS algorithm and Bootstrapping technique using 10,000 bootstrap subsamples were conducted in SmartPLS 3 to investigate direct effects of the variables in the model.

4. Validity and Reliability Testing

To test the construct validity of the instrument, we conducted Factor Analysis in SPSS and tested the correlations between the items of each variable.

Table 4.1 *Component Matrix: Consumer Attitude*

CODE	ITEM	CONSUMER ATTITUDE
CA1	I have a favorable attitude towards the product.	0.950
CA2	My overall opinion of the product is very positive.	0.944
CA3	The product in this post is attractive.	0.941
CA4	This product is very useful.	0.949
CA5	I like this product.	0.945

Source: Authors' own work.

Table 4.2 *Component Matrix: Purchase Intention*

CODE	ITEM	PURCHASE INTENTION
PI1	I would like to have more information about the product.	0.938
PI2	I am interested in this product.	0.967
PI3	I will purchase this product.	0.927

Source: Authors' own work.

The numbers presented in Table 4.3 indicate satisfactory values of Cronbach's coefficient alpha (1951). The coefficient is widely used to determine the reliability of multi-item scales and assess the internal consistency of model constructs.

Table 4.3 *Reliability Statistics*

FACTOR	NUMBER OF ITEMS	ITEMS	C's ∝ >0.7
Consumer Attitude	5	CA1, CA2, CA3, CA4, CA5	0.970
Purchase Intention	3	PI1, PI2, PI3	0.938

Source: Authors' own work.

5. Results

5.1 Descriptive Statistics

The questionnaire was filled by 166 individual subjects. Since each subject was exposed to two scenarios (high and low), this method yielded 332 valid responses. Out of 166 subjects, 105 were female (63.3%) and 61 male (36.7%). The majority of the subjects were between 20 and 40 years of age according to Table 5.1, only 5 (3%) were older than 51, and most of them (42.8%) were college graduates with bachelor's degree (see Figure 3.2 and Table 5.1).

Table 5.1 *Sample Characteristics*

Variable	Demographics	Number	Percentage
Gender	Female	105	63.3%
	Male	61	36.7%
	Total	166	100%
Age	20-30	70	42.2%
	31-40	69	41.6%
	41-50	22	13.3%
	51+	5	3.0%
	Total	166	100%
Education	High school	30	18.1%
	Bachelor	71	42.8%
	Master	61	36.7%
	Doctorate	4	2.4%
	Total	166	100%

Source: Authors' own work.

The causality between the number of likes and the dependent variables wasstatistically tested in Tables 5.2 and 5.3. The mean value of Consumer Attitude for the low number of likes was 2.4289 whereas for high number of likes it amounted to 4.1337. The same trend can be observed in individual variable items. For example, the mean value for CA2 was 2.31 for low number of likes and 4.08 for high number of likes.

Table 5.2 *Descriptive Statistics: Consumer Attitude (CA)*

CODE	Variable: Consumer Attitude (CA)	Number of Likes	N	Minimum	Maximum	Mean	Std. Deviation
CA1	I have a favorable attitude towards the product.	92	166	1	5	2.39	0.983
CA2	My overall opinion of the product is very positive.	92	166	1	4	2.31	0.953
CA3	The product in this post is attractive.	92	166	1	5	2.38	1.024
CA4	This product is very useful.	92	166	1	5	2.59	1.139
CA5	I like this product.	92	166	1	5	2.48	1.077
CA	CA	92	166	1	4.40	2.4289	0.94613
CA1	I have a favorable attitude towards the product.	856	166	1	5	4.04	0.704
CA2	My overall opinion of the product is very positive.	856	166	1	5	4.08	0.801

CA3	The product in this post is attractive.	856	166	1	5	4.19	0.850
CA4	This product is very useful.	856	166	1	5	4.23	0.768
CA5	I like this product.	856	166	1	5	4.14	0.859
CA	CA	856	166	1	5	4.1337	0.69575

Source: Authors' own work.

The mean value of Purchase Intention for low number of likes was 2.2269 and it amounted to 4.0884 in the case of high number of likes (see Table 5.3). Purchase Intention items exhibited the same numerical trends, with, for example, the mean value of PI2 amounting to 1.87 for low number of likes and to 3.92 when the number of likes was high.

Table 5.3 *Descriptive Statistics: Purchase Intention (PI)*

CODE	Variable: Purchase Intention (PI)	Number of Likes	N	Minimum	Maximum	Mean	Std. Deviation
PI1	I would like to have more information about the product.	92	166	1	5	2.56	1.198
PI2	I am interested in this product.	92	166	1	5	2.25	1.152
PI3	I will purchase this product.	92	166	1	5	1.87	1.045
PI	PI	92	166	1	4.67	2.2269	1.02825
PI1	I would like to have more information about the product.	856	166	1	5	4.21	0.761
PI2	I am interested in this product.	856	166	1	5	4.14	0.823
PI3	I will purchase this product.	856	166	1	5	3.92	0.884
PI	PI	856	166	1	5	4.0884	0.71461

Source: Authors' own work.

Factor loadings were observed for each item (see Figure 5.1). The items with factor loadings between the values of 0.5 and 1 on the factor with which they hypothetically correspond were considered adequate indicators of that factor (Hair, Black, Babin, & Anderson, 2010).
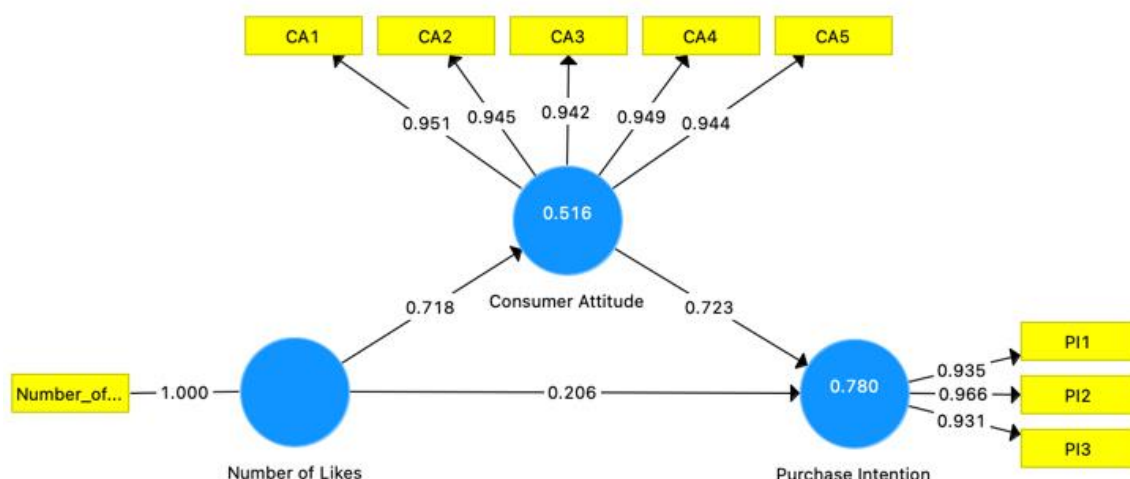
Figure 5.1 *Loadings of Items per Factors in SmartPLS 3*

Source: Authors' own work.

5.2 Empirical Findings

All empirical findings are summarized in Table 5.4 below.

Table 5.4 *SmartPLS 3 Hypotheses Testing*

Hypothesis	Path in the Model	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypothesis Status
H1	NL -> CA	0.718	0.719	0.028	25.694	0.000	Supported
H2	CA -> PI	0.723	0.725	0.048	15.008	0.000	Supported
H3	NL -> PI	0.206	0.205	0.050	4.146	0.000	Supported
H4	NL -> CA -> PI	0.519	0.521	0.041	12.776	0.000	Supported

Source: Authors' own work.

H1: *The number of likes for a product advertised on Instagram has a statistically significant effect on consumer attitude towards the product on Instagram.*
Hypothesis 1 was supported with the following indicators: (1) p value of 0.000; (2) t value of 25.694. Both indicators suggest a strong and direct relationship between the number of likes on Instagram and consumer attitude.

H2: *Consumers' attitude towards the product on Instagram has a statistically significant effect on the likelihood of purchasing the product on a linked e-commerce site.*
In the case of H2, the following indicator values were extracted: (1) p value of 0.000; (2) t value of 15.008, both of which demonstrate a significant effect of CA on PI.

H3: *The number of likes for a product advertised on Instagram affects the purchase intention of customers to buy the product on a linked e-commerce site.*
According to p value of 0.000 and t value of 4.146, it can be concluded that the number of likes for a product on Instagram has a statistically significant effect on PI.

H4: *Consumer attitude on Instagram plays a mediating role between Instagram likes and Purchase Intention.*
Based on the values of p = 0.000 and t = 12.776, we can conclude that consumer attitude plays a mediating role between Instagram likes and PI.

This is a case of partial mediation, since, in addition to the mediating role played by CA, there is a direct connection between the number of likes and PI, as demonstrated by H3.

6. Discussion

The use of social media for business is rapidly growing in popularity. The primary objective of this article is to show the impact of Instagram popularity of a product expressed in likes on consumer attitude and subsequent purchase intent in consumers in BiH. Literature review has yielded a relatively small amount of research conducted and published in this area thus far, therefore, the theoretical contribution of this article is to provide further insight into the impact and usefulness of Instagram marketing for e-commerce. The hypotheses were confirmed, and the article provides data which indicates a significant and direct relationship between the quantity of likes on Instagram, consumer attitude, and purchase intention.

The results reveal that the number of likes influences consumers' attitude towards a product advertised on Instagram. According to these results, it may be concluded that the higher the number of likes for a product, the more positive consumer attitude is going to be. This may be attributed to the fact that likes are perceived as a favorable response from the audience and the higher quantity of likes might be associated with the perception of positive feedback from the followers. The popularity of the post on Instagram positively affects trust in the post, and consequently has a positive impact on consumer attitude.

Furthermore, these results have managerial implications, since it is evident that Instagram provides a viable marketing route for e-commerce. The data showed that a positive consumer attitude has a direct impact on purchase intent. This means that the trust instilled into Instagram users through the post popularity expressed in the number of likes will directly and indirectly, through consumer attitude, have a positive impact on purchase intent. Lee *et al.* (2016) go as far as to claim that the number of likes is positively related to sales volume. Consequently, due to its rapid growth and massive popularity, it has become imperative for businesses to leverage Instagram for the purpose of placing and promoting their brands and products, and facilitating commercial transactions by boosting s-commerce.

7. Conclusion

The main objective of this study was to investigate the relationship between Instagram popularity expressed by the quantity of likes, consumer attitude, and purchase intention. After thorough literature review, four hypotheses were proposed and tested using SPSS and SmartPLS 3.

The population for the study consisted of Instagram and e-commerce users in BiH. The survey comprised of two scenarios with 12 questions each, both of which were filled out randomly by 166 subjects yielding a total of 332 responses. The sample comprised 63.3% women and the majority of subjects were in the age categories between 20 and 30 (42.2%) and 30 and 40 (41.6%).

Prior to hypothesis testing, data analysis was conducted in order to assure the validity and reliability through item loadings and Cronbach's Alpha values. The hypotheses were tested using SmartPLS 3 software. The results indicated that Number of Likes has a significant and positive effect on Consumer Attitude and Purchase Intention. A partial mediating role of Consumer Attitude between the Number of Likes and Purchase Intention was also confirmed.

It is recommended for future research to investigate the impact of other social media cues such as comments, reviews, and recommendations in combination with likes on consumer attitude and subsequent purchase intent.

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