

The Effect of Information Overload, and Social Media Fatigue on Online Consumers Purchasing Decisions: The Mediating Role of Technostress and Information Anxiety

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Abstract. Despite the benefits of information technology and social media in providing online shoppers with product information, their negative effects on online purchasing decisions persist. Therefore, this study aims at testing the effect of information overload, information anxiety and social media on online purchasing decisions. To achieve this, a research model was designed which was prepared through a review of several literatures. Data were collected from a random sample of 326 online shoppers, by preparing an electronic questionnaire consisting of a set of ready-made scales used in previous studies. Structural equation modeling was used to test the study hypotheses using the Amos program 26. The study found a set of results, the most important of which is that information overload negatively affects information anxiety, and social media fatigue affects online purchasing decisions, in addition to its effect on the occurrence of information anxiety.

Keywords: Information overload, online purchase, information anxiety, technostress

1. Introduction

Information technology and e-commerce have changed the way consumers purchase products. These technologies have provided shoppers with many benefits, such as saving the costs of moving between stores in traditional shopping, and the availability of information that helps to choose the most appropriate products (Sarkar, 2011). Social media is one of the most important contemporary technologies used in electronic shopping (Komodromos, Papaioannou and Adamu, 2018).

Despite these benefits, the use of information technology led to the shopper obtaining a very large amount of information. In the era of mobile Internet, users are forced to handle too much information (Fu et al., 2020). This reflected negatively on Internet users in general in the so-called phenomenon of information overload. Some studies have indicated that consumer behavior may be affected by information overload due to the amount of information on the Internet (Chang Lee et al., 2013).

Information overload is a serious problem that affects individuals' perception of a topic due to the availability of a large amount of information (Shrivastav and Hiltz, 2013).

The phenomenon of information overload is one of the main challenges of the information age (Roetzel and Fehrenbacher, 2020), it has faced all groups of individuals in the information society, including consumers who practice online shopping so that purchasing decisions have become more difficult due to the phenomenon of information overload. Information overload is not new, but what is new is the exacerbation of this phenomenon with the existence of the Internet and the information technology revolution (Al-Kumaim, 2020). The mental abilities of individuals such as perception and memory contribute greatly to the occurrence of the phenomenon of information overload (Gunaratne et al., 2020).

The process of online shopping is characterized by that there is less direct interaction than it is in traditional shopping, which is reflected in the difficulties that buyers face when information on products is vague and complex (Li, 2017).

Many studies have addressed the issue of information overload in many areas, including decisions in general (Hwang and Lin, 1999; Phillips-Wren and Adya, 2020), but few of them have examined the effect of this phenomenon on online purchasing decisions. On the other hand few studies have examined the characteristics of social media network services and their role in information overload (Lee, Son and Kim, 2016).

Despite the literature results, the mediating role of information anxiety between information overload and purchasing decisions remains unclear.

The literature review indicated that the mediating role of information anxiety between media fatigue and purchasing decisions was not studied by researchers.

The main purpose of this study is to find the best way to reduce the negative effects of information overload. This study aims to determine whether the online purchase decision is affected by the amount of information available to the shopper, in addition to identify the role of social media fatigue and technostress on product selection.

The current study assumes the existence of many factors that reduce the ability of online shoppers to purchase products, such as information overload, information anxiety, and stress resulting from the use of social media and technostress.

This study contributes to identifying the effect of information overload on the method used by shoppers when purchasing products over the Internet.

Research question:

- Does increasing information overload reduce consumers' ability to make online product purchase decisions?
- Does the increased information overload lead to information anxiety for internet shoppers?

The current study consists of seven main sections, the first is the introduction, which aims to define the research problem, the second is concerned with reviewing the literature, the third part includes the development of the research model and its hypotheses, the fourth includes the research methodology, the fifth is for data analysis, the sixth is devoted to discussing the results, and finally it includes the section Seventh, future studies.

2. Theoretical background and literature review

This section presents the most important theoretical aspects related to the study variables and the most important findings of previous studies.

2.1. Information Overload

Information overload has been studied in the information systems literature as a negative phenomenon (Umeozor, 2017), according to which individuals receive information that exceeds their capabilities to deal with (Mustapar, Abdullah and Noor, 2016; Islam, Whelan and Brooks, 2018).

The information load is generally divided into two parts: overload and underload (Hwang and Lin, 1999), in the current study, the second type will be dealt with, which is the information overload due to the abundance of information available on the Internet. There are several terms synonymous with information overload infobesity, infoxication (Gouws and Tarp, 2017; Renjith, 2017), the authors will adopt the term information overload as one of the most common terms.

There is no single universally agreed definition of information overload (Bandyopadhyay and Zafar, 2017), despite this, the literature agrees that overload occurs when information is of an uncertain, complex, or ambiguous nature (Hu and Krishen, 2019). The term overload is one of the terms that include many fields and

which generally represents the increase in a phenomenon that exceeds the ability of individuals to deal with it (Zhang et al., 2016).

From a technological perspective, information overload is one of the three dimensions of technological overload, system feature overload, and communication overload (Karr-Wisniewski and Lu, 2010).

The term information overload was first used by Bertram Gross in his book entitled *The Managing of Organization* which was published in 1964 (Renjith, 2017), the term was later used by Alvin Toffler in his 1970 book *Future Shock* (Kliwer, Phillips and Massanelli, 2017). The problem of information overload is one of the problems facing individuals in contemporary societies (Renjith, 2017).

The decision-making process is influenced by the way individuals perceive the environment around them, and perception affects the way individuals deal with information (Chen et al., 2018). Processing information from an administrative perspective means the amount of information that the decision-maker can use in the decision-making process during a specific period (Eppler and Mengis, 2004).

In the context of organizations, Hwang & Lin (1999) founds that there is a relationship between information overload and the ability of managers to process information for the decision making, it reduces decision makers ability to make the best possible decision (Roetzel and Fehrenbacher, 2020), and reducing the quality of decisions (Letsholo and Pretorius, 2016). Zou & Webster, (2014) found information overload has a negative effect on performance. On the other hand, information anxiety is considered the negative consequences of information overload (Eppler and Mengis, 2004; Gouws and Tarp, 2017). Information overload results in many negative states such as loss of time, frustration, and stress (Umeozor, 2017), information loss, forgetting, or distortion (Heylighen, 2002).

Information overload in the context of the shopping process means the amount of information that a consumer receives before making a purchase decision (Huang and Zhou, 2019). One of the reasons that encourage Internet shoppers to expand their access to product information is the ease of obtaining information and the low costs of obtaining it (Su, 2008). Ding, Zhang, & Wang (2017) have indicated that an information overload leads to decreased purchase decision making.

Although the Internet provides vast amounts of information, much of it is not homogeneous, which causes information overload (Schmitt, Debbelt and Schneider, 2018), this means that this phenomenon does not occur only because of the large number of information, but because of the content of the information.

One of the reasons that lead to the phenomenon of information overload is that the time available for the decision-maker to deal with the information is less than the time required to process this information (Letsholo and Pretorius, 2016). From a cognitive perspective, an overload occurs when the information received by an individual exceeds cognitive limits (Zhang, Ding and Ma, 2020).

Based on previous studies, the causes leading to the information overload can be

classified into personal (Sasaki, Kawai and Kitamura, 2015), informational (Eppler and Mengis, 2004), functional (Roetzel and Fehrenbacher, 2020) and technical factors, the present study relies on the subjective perspective of being more compatible with consumer behavior.

As for personal factors, it is that which is associated with the abilities of individuals to assimilate and process information and depend greatly on mental abilities, as well as the psychological state, so it is relative, meaning that it differs from one person to another.

As for informational factors, it is related to the information itself and depends on two elements: the amount of information and the degree of clarity.

Technological factors, most researchers agree that information technology played two roles at the same time, as it contributed to increasing the information overload and at the same time reducing it (Bock et al., 2008). For example, using search engines retrieves far more information than a person can handle with the returned results. Functional factors are those that are associated with work characteristics such as job stress (Roetzel and Fehrenbacher, 2020).

A traditional way to address information overload is to filter the information by excluding information of little importance (Mahdi et al., 2020). In the context of dealing with internet shoppers, the information overload is countered by identifying the products by reading a few reviews that suit their needs (Kwon et al., 2015).

Depending on the previous ideas, researchers believe that information overload is several inputs that becomes much greater than the ability to process, which makes decision-makers have a limited ability to cognitive processing and therefore when an overload of information occurs, it is possible that a decrease in the quality of the decision.

The quality of information contributes to positive decision-making (Hu and Krishen, 2019). Eppler & Mengis (2003) and Roetzel & Fehrenbacher (2020) found that the quality of decisions increases when the amount of information available to the decision-maker increases to a certain level, and then after increasing information about that level information overload.

2.2. Information anxiety

Information anxiety is the tension that occurs due to the inability of individuals to access the necessary information, or the inability to understand it, and is a consequence of information overload (Shrivastav and Hiltz, 2013). It is a state of tension that results in individuals' inability to access required information, or the inability to understand it (Bawden and Robinson, 2009).

The online shopping environment is a fertile area for the phenomenon of anxiety among shoppers due to the risks that they are likely to face, which may be a breach of privacy or credit card fraud (Celik, 2016). One of the reasons that lead to a state of information anxiety is information overload (Bawden and Robinson, 2009).

Increased use of technology leads to increased informational anxiety (Eklof, 2013).

2.3. Social media fatigue

Social media is an online service that aims to establish social relationships between individuals who have common interests (Luqman et al., 2017).

There are two types of fatigue that individuals can experience: psychological and physiological (Ravindran, Yeow Kuan and Hoe Lian, 2014). The Yao, Phang, & Ling (2015) study found that psychological fatigue negatively affects individuals' behavior. Social media fatigue is the negative emotional impact of social media use (Zhang et al., 2016). Sometimes called "social media burnout" (Han, 2018). This phenomenon is characterized by a lack of desire to use these platforms (Liu and Ma, 2018).

Marketers realized that the use of social media has become an important part of their marketing strategies to reach the largest possible number of buyers (Akar and Topçu, 2011). Social media marketing is defined as the use of social media platforms to promote a company's products (Akar and Topçu, 2011). There are many symptoms related to technical fatigue, the most prominent of which is the individual's inability to focus attention, irritability, and a feeling of losing control over work (Ibrahim, Bakar and Nor, 2007). Some studies have found that media fatigue occurs for a variety of reasons, including information overload (Luqman et al., 2017).

Consumers obtain information about products from various sources, including the interaction between them through social media (Clemons, 2009).

2.4. Technostress

The term technostress was first used by the psychologist Craig Brod in 1984, describing it as a disease that occurs due to the inability of individuals to deal with information and communication technologies (Ayyagari et al., 2011). Stress is commonly known as the perceptual state that individuals face when the demands on their environment exceed the limits of their ability to satisfy them (Tarafdar, Tu and Ragu-Nathan, 2010). Liu & Ma (2018) argue that social media addiction is a source of overload.

There are many types of stress that individuals can be exposed to, and one of these types is ICT stress, which is called the term technostress (Qi, 2019). Stress is generally defined as a condition that individuals face when the volume of requests is greater than the number of available resources (Phillips-Wren and Adya, 2020). Maier, Laumer, Weinert, & Weitzel (2015) show that social media use contributes to stress. Technostress is defined as the psychological state related to the fear or unwillingness to use information technologies (Hartog, 2017). It is stress caused by the use of information technologies (Tarafdar, Cooper and Stich, 2017). It is the pressure resulting from the inability of individuals to deal with the changes taking place in information technology, due to negative attitudes (Zainun, Johari and

Adnan, 2019).

2.5. Purchase decision

From an administrative point of view, the decision is intended to select an alternative from a group of alternatives. Clients make purchasing decisions in order to satisfy their needs (Shah, Zahoor and Qureshi, 2019). The quality of information influences decisions to purchase products online (Lin et al., 2019).

3. Research model and hypothesis development

The research model shown in Figure 1 was developed depending on a number of previous literature to study the effect of a group of factors on decisions to purchase products over the Internet, as a dependent variable. The information overload has been chosen because it is one of the factors that most Internet users are exposed to, which is expected to lead to a state of information anxiety, and since electronic shopping operations occur through information technology and social media, the variables related to their negative states have been chosen, namely technostress and social media fatigue as two independent variables that influence purchasing decisions.

3.1. Information overload and purchase decision

The stress caused by information overload negatively affects the quality of decisions (Marsden, Pakath and Wibowo, 2006). Because the information overload exceeds the capacity of decision-makers, some information is selected and processed at the expense of other information that may be more important (Phillips-Wren and Adya, 2020). The results of the studies have shown an inverse relationship between information overload and purchasing decisions, so the more information is loaded, this leads to a decrease in the quality of decisions to buy products from online stores (Chen, Shang and Kao, 2009). In the study of Huang & Zhou (2019) concluded that perceptual information overload is negatively related to the quality of consumers' decisions. Depending on the above, the following hypothesis can be formulated:

H1: Information overload (IO) positively related to purchase decision (PD)

3.2. Information overload and Information anxiety

Although some researchers regard information anxiety as a synonym for information overload (Vinet and Zhedanov, 2011), the findings of Girard (2005) indicate that they are two different things, and this is what the current study adopts. One of the previous studies showed that individuals who suffer from social anxiety related to internet use ignore information when exposed to information overload (Hwang et al., 2020). Eklof (2013) mentioned that information anxiety arises from multiple factors, including information overload. Swar, Hameed, & Reychar (2017)

have found an association between information overload and the occurrence of negative psychological states such as stress and anxiety. Depending on the above, the following hypothesis can be formulated:

H2: Information overload (IO) positively related to information anxiety (IA)

3.3. Technostress and information anxiety

The use of information technology sometimes leads to problems for users, which are Technostress (Ayyagari et al., 2011). Technostress causes anxiety for users of information technology (Yang and Lin, 2018). Technostress causes two types of physical problems, such as eye strain and back pain, psychological problems, depression, depression, and anxiety (Tagurum YO, Okonoda KM, Miner CA, 2017). Some studies, including the study (Gudur et al., 2013), indicated that technical complexity contributes to the occurrence of anxiety in individuals. From this discussion, we propose the following hypothesis:

H3: Technostress (TS) effect positively on information anxiety (IA)

3.4. Social media fatigue and information anxiety

The results of Dhir, Yossatorn, Kaur, & Chen (2018) showed that fatigue caused by the use of social media leads to a higher level of anxiety among users of these applications. The results of a study Dhir et al. (2018) conducted on a group of social media users in India indicated that the compulsive use of these technologies leads to increased anxiety.

Social media provides access to large amounts of information, which can lead to the information overload phenomenon (Islam, Whelan and Brooks, 2018). Social media is often characterized by people communicating asynchronously, and this method has led to the accumulation of conversations. Consequently, it leads which leads to an information overload (Gunaratne et al., 2020). The results of a study Yu, Cao, Liu, & Wang (2018) conducted on a group of workers in some Chinese organizations showed that individuals are subjected to fatigue caused by the excessive use of social media because of their exposure to an information overload. Social media has caused negative emotions for many users of these technologies due to the boredom and exhaustion of dealing with large amounts of useless information (Guo et al., 2020). Social media provides online shoppers with various information about products, and because of the limited cognitive capabilities of individuals, it is expected that shoppers will suffer from technical stress due to the abundance of information, Some studies have confirmed a relationship between information overload and technical stress (Ayyagari, 2012). Results conducted by (Shi et al., 2020) on a group of Chinese students who use social media showed that information overload led to a state of technical stress.

Based on the results of the studies referred to, it can be said that excessive use leads to an increase in information in a way that exceeds the ability of social media users to deal with it, which leads to a state of information anxiety, so the following

hypothesis can be presented:

H4: Social media fatigue (SMF) associated positively with information anxiety (IA)

3.5. Social media fatigue and purchase decision

The study conducted by Munir, Shafi, Khan, & Ahmed (2018) showed that the use of social media has an impact on participation in making a purchase decision. Jha (2019) showed that communication between individuals through social media has an important role in forming a positive perception towards online purchases.

The decisions to buy online are affected by multiple factors, including promoting it via the Internet using viral marketing (Artanti, Hari Prasetyo and Sulistyowati, 2019). Findings of a study by Chou, Picazo-Vela, & Pearson (2013) revealed that the buying decisions of online buyers are affected by the number of reviews written on social media and others by buyers of high-priced products. Consumer buying behavior is influenced by social media availability (Shah, Zahoor and Qureshi, 2019). Based on the previous arguments, the following hypothesis can be proposed:

H5: Social Media Fatigue (SMF) related positively with purchase decisions (PD)

3.6. Information anxiety and purchase decision

Researchers have found that the overload that online shoppers are subjected to leads to stress and anxiety, which negatively affects the purchasing decision (Ding, Zhang and Wang, 2017). Some studies have found that shoppers with technical anxiety are less likely to use self-service technology when making purchases (Meuter et al., 2003). Some studies, including the study (Soto-Acosta, Molina-Castillo, et al., 2014), found that information overload affects customers' intentions to buy online, so we suggest the following hypothesis:

H6: Information anxiety (IA) related positively with purchase decision (PD)

H7: Information Anxiety (IA) mediates the effect of Information Overload on Purchase Decision.

H8: Information Anxiety (IA) mediates the effect of Social Media Fatigue on Purchase Decision

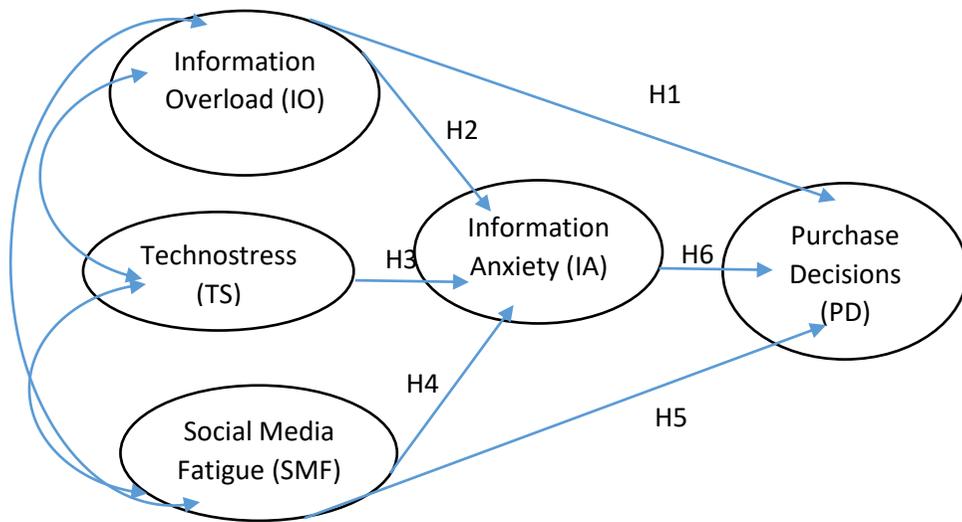


Fig. 1: Research model

4. Research Methodology

4.1. Measurement development

The study adopted a set of ready-made measures included in the previous studies, as shown in Table 1. Since the scales are prepared in the English language, and the respondents are Arabic speakers, the scale has been translated into Arabic. The total number of indicators for the scale reached 25 indicators distributed on five factors.

All survey questions were measured using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)

Table 1: Measurement of variables

Variables	Items	Sources
Information overload (IO)	5	(Zhang et al., 2016) (Karr-Wisniewski and Lu, 2010) (Ayyagari, 2012)
Technostress (TS)	5	(Mette et al., 2014) (Ayyagari et al., 2011)
Social Media Fatigue (SMF)	5	(Zhu and Bao, 2018) (Bright, Bardi and Landreth, 2015)
Information anxiety (IA)	5	(Girard and Allison, 2008)
Purchase decisions (PD)	5	(Gazzola et al., 2017) (Altarifi et al., 2015)
Total	25	

4.2. Sample and data collection

The electronic questionnaire was used as the main tool in collecting data for the current study, and the simple random sample was adopted by distributing the questionnaire on social media sites specialized in online shopping in the Iraqi environment.

4.3. Participant Demographics

Depending on the results of the survey that was conducted in this study, the results of the demographic characteristics of the research sample, which consisted of 326 participants, indicated that most of the individuals surveyed were women 68.4%, while the male form 31.6%. As for age groups, it is evident from Table 2 that the age group 15-25 obtained the highest percentage among the age groups of the research sample, which is 42.9%. The results also showed that the unmarried group had the highest percentage among other social cases 51.5%. As for the educational level, more than half of the research sample have a bachelor's degree 56.1%.

Among the respondents, 52.5% used the Internet daily for a period ranging between one and five hours.

Table 2: Demographics of the research sample

Category	Item	Frequency	Percentage(%)
Gender	Male	103	31.6
	Female	223	68.4
Age	15-25	140	42.9
	26-35	105	32.2
	36-45	56	17.5
	46-55	16	4.6
	56-65	7	2.1
	66-75	2	0.6
Marital status	Single	168	51.5
	Married	150	46.0
	Widower	5	1.5
	Divorced	3	0.9
Educational level	Reads and writes	5	1.5
	High school	59	18.1
	Bachelor	183	56.1
	Diploma	19	5.8
	Master	43	13.2
	PhD	17	5.2
Type of work	Student	131	40.2
	Free work	34	10.4
	Employee	115	35.3
	Out of work	46	14.1
Average daily of Internet usage	1-5	171	52.5
	6-10	118	36.2
	11-15	37	11.3

5. Data analysis and results

To test the hypotheses of the study, Structural Equation Modeling (SEM) was used by AMOS 26 software. To achieve this, the statistical treatments were performed in two stages, the first represented by the measurement model using confirmatory factor analysis (CFA) to verify the quality of the model and its conformity with the data, while the second stage was represented by the integrated structural model to test the hypotheses, and this is what he suggested (Anderson and Gerbing, 1988).

5.1. Measurement model assessment

The confirmatory factor analysis (CFA) was used in the pooled measurement model by linking all the constructs together in one model. The quality of the model was checked using reliability and validity. The measurement model consists of five

latent variables, each of which is measured by five indicators.

Reliability means consistency between indicators that measure the same construct (Guo et al., 2020). To assess the reliability of the measurement model, Cronbach's Alpha and Composite Reliability (CR) were used to measure the internal consistency between the indicators and each construct of the measurement model. Some studies indicated that the Cronbach α value and the composite reliability are acceptable if it exceeds 0.6 (Awang, 2014). Table 3 shows that all indicators values are greater than 0.6, which means that internal consistency is achieved in the model.

Converging validity was used to validate the scaling model, which means the degree of affinity between indices that measure specific constructs. This has been verified in two ways. First is represented by standard factor loads, which are considered acceptable when the index load on the factor exceeds a threshold of 0.60 (Awang, 2012), and the second is represented by the average variance extracted (AVE), which must exceed a value of 0.50 (Fornell and Larcker, 1981). Table 3 shows that all the values met the required loading criteria except for the SMF4 indicator, and all the factors met (AVE) except for the information overload.

Table 3: Reliability and Convergent validity

Construct	Item	Mean	SD	Loading	Cronbach α	CR	AVE
Information overload (IO)	IO2	3.75	0.97	0.686	0.615	0.617	0.446
	IO3	3.43	1.07	0.650			
Technostress (TS)	TS2	3.34	1.05	0.660	0.833	0.837	0.564
	TS3	3.32	1.06	0.781			
	TS4	3.27	1.10	0.803			
	TS5	3.56	1.16	0.751			
Social Media Fatigue (SMF)	SMF1	3.59	1.06	0.773	0.829	0.835	0.561
	SMF2	3.52	1.04	0.822			
	SMF3	3.27	1.09	0.774			
	SMF4	3.27	1.10	0.575			
Information Anxiety (IA)	IA1	3.29	1.02	0.668	0.835	0.817	0.528
	IA3	3.22	1.06	0.774			
	IA4	3.39	1.08	0.726			
	IA5	3.37	1.09	0.736			
Purchase decisions (PD)	PD1	3.44	1.03	0.680	0.786	0.788	0.554
	PD4	3.39	1.12	0.740			
	PD5	3.01	1.15	0.807			

The items that did not meet the required loading were removed, so three elements of information overload, two items of purchasing decisions, one item each from technostress, social media fatigue, and information anxiety were deleted.

Discriminant validity refers to how much the constructs differ from one another (Chen et al., 2018), and is achieved when the square root of the average variance extracted (AVE) for each factor is greater than the correlation values between any two factors as illustrated in table 4.

Table 4: Construct correlation matrix and the square roots of AVE

Const ruct	MSV	MaxR(H)	IO	TS	SMF	AI	PD
IO	0.324	0.618	0.668				
TS	0.511	0.845	0.570** *	0.751			
SMF	0.511	0.848	0.428** *	0.715** *	0.749		
IA	0.280	0.821	0.504** *	0.529** *	0.502** *	0.727	
PD	0.062	0.798	0.132	0.212**	0.249** *	0.130	0.744

As for the conformity indicators, it is evident from figure 2 of the total measurement model that all the indicators of conformity quality achieved the thresholds specified in the references, indicating that the measurement model is compatible with the field data to an acceptable degree (chi-square / df = 1.77; RMSEA = 0.049; NFI = 0.921; CFI = 0.963; GFI = 0.933; AGFI = 0.904)

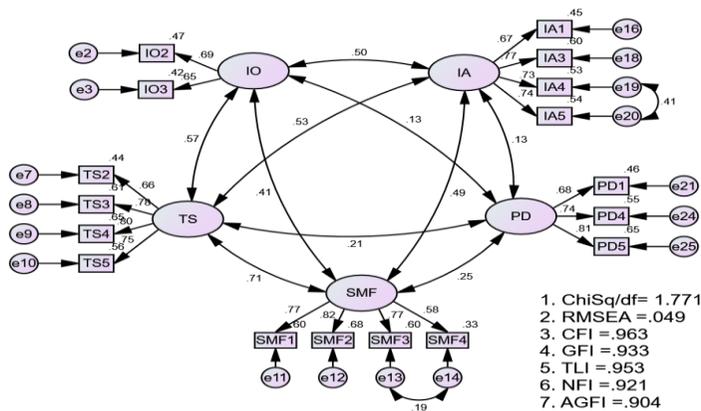


Fig. 2: Measurement model

5.2. Structural model

Structural equations modeling (SEM) was used by Amos 26 software to test the causal relationships in the structural model for the study, and the quality of the structural model was verified using match quality indicators using the maximum likelihood method. The figure 3 shows that the match quality indicators are achieved according to for chi-square value / degrees of freedom = 1.76, CFI = 0.964, GFI = 0.933, AGFI = 0.904, NFI = 0.920, RMSEA = 0.048 and all indicators have exceeded their thresholds.

The relationships were tested in the structural model by using the coefficient of determination (R2), which shows the amount of the contribution of the independent variables (Exogenous) in explaining the proportion of variance in the dependent variables (Endogenous). Also, standard path factors were used which are called beta values, which indicate the level of strength of the relationship between the independent and dependent variables, and their significance was checked by the critical value represented by the value of the t-test.

The structural model shows that the contribution of information overload, technical stress, and social media fatigue in explaining the variance in information anxiety was 36%.

As for the contribution of information overload, social media fatigue, and information anxiety in explaining the variance in purchasing decisions for the study sample, it was 6%.

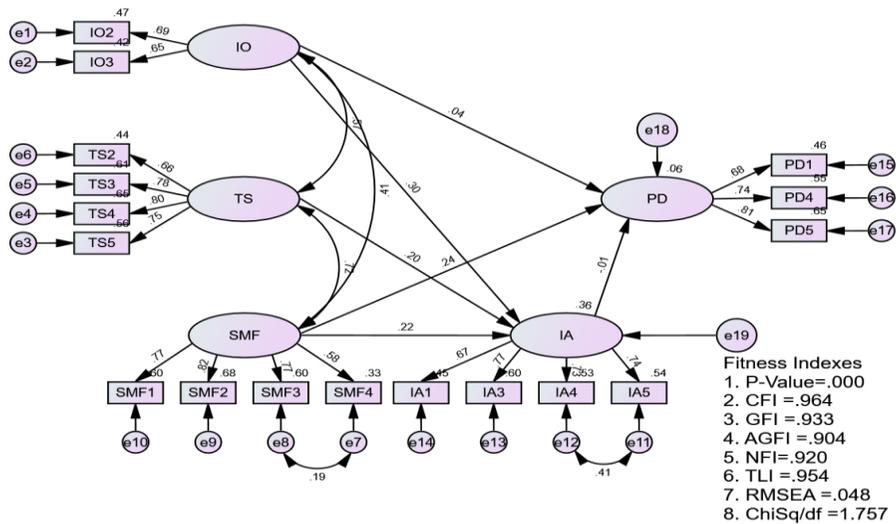


Fig. 3: Structural model

Direct hypotheses were verified, and table 5 of the structural model shows that information overload ($\beta = 0.29, t = 2.94$) and social media fatigue ($\beta = 0.22, t = 2.17$) have a positive and significant effect on information anxiety, which support

hypothesis H2 and H4.

We also found that social media fatigue ($\beta = 0.23, t = 2.72$) has a positive and significant effect on purchasing decisions, which supports hypothesis H5.

However, our findings showed that technostress ($\beta = 20, t = 1.71$) does not affect information anxiety, and information anxiety ($\beta = -0.005, t = -0.05$) and information overload ($\beta = 0.044, t = 0.44$) they do not influence purchasing decisions, so hypotheses H3, H1, and H6 are rejected.

Table 5: Hypothesis testing results

Hypothesis	B	t-value	P-Value	Result
Direct effect				
H1: IO → PD	0.04	0.44	0.660	Unsupported
H2: IO → IA	0.29	2.94	0.003	Supported
H3: TS → IA	0.20	1.71	0.086	Unsupported
H4: SMF → IA	0.22	2.17	0.029	Supported
H5: SMF → PD	0.23	2.71	0.007	Supported
H6: IA → PD	-0.005	-0.056	0.955	Unsupported

Table 6 shows the insignificance of the mediating role of information anxiety between information overload and purchase decisions of buyers, and the insignificance of its mediating role between information anxiety and social media fatigue, thus rejecting hypotheses H7 and H8.

Table 6: Indirect effects

Path (Hypothesis) (relationship)	Standardized Indirect effect	Standardized Direct effect	Bootstrapping Bias-corrected 95		p-value	Mediation type	Results
			Lower	Upper			
H7: IO → IA → PD	-0.002	0.044	-0.059	0.055	0.993	No mediation	Unsupported
H8: SMF → IA → PD	-0.001	0.236	-0.049	0.042	0.945	No mediation	Unsupported

6. Discussion the results

Social media has become an integral part of the daily life of most societies around the world, and the phenomenon of electronic shopping is one of the contemporary phenomena that accompanied technological developments, and it has been widely

used in social media.

Many previous studies have dealt with issues related to information overload in various fields (Ledzińska and Postek, 2017; Alheneidi, 2019). However, the review that was performed showed that previous studies did not examine the effect of information overload resulting from the use of social media on online purchasing decisions in the Arab environment in general. And in the State of Iraq specifically.

The results support three of eight hypotheses. The current study found many results, first, the effect of information overload clearly on the occurrence of information anxiety H2 in the studied individuals, and this can be justified by the fact that information that exceeds the carrying capacity of shoppers increases the resulting stress. Because some individuals believe that there is important information that they cannot absorb, and this result is consistent with a study (Gouws and Tarp, 2017; Umeozor, 2017) in which he indicated that information overload causes an information anxiety state.

Second, the current study reached an important conclusion, which is that social media fatigue leads to the occurrence of information anxiety in individuals H4, and the reason for this can be attributed to the excessive use of social media, which exposes individuals to obtain different information that they cannot obtain to distinguish between right and wrong. It leads to a state of anxiety over information and this result is consistent with a study Dhir et al. (2018) in which he indicated that the stress of social media led to a state of anxiety and fatigue among a sample of adolescents in India.

Third, the results of the current study showed that social media fatigue affects online purchasing decisions H5, and this can be explained by the fact that pressure from social media use affects consumers' decisions to purchase products, and this result is consistent with.

Contrary to expected, information overload does not affect purchasing decisions H1, this result converges with what Muller (2014) found that information overload does not affect shoppers' buying behavior. The reason for this may be related to the ability of shoppers to avoid this situation because they have some experience and knowledge of electronic stores that provide the products they need.

Contrary to our expectations, technostress does not affect the occurrence of information anxiety among the respondents H3, and it is expected that the reason for this is that technostress has more to do with the physical aspect than it is related to the psychological aspect.

Contrary to what was expected, the results showed that anxiety about information does not affect purchasing decisions on the Internet, which led to the rejection of hypothesis H6, and the reason for this may be that shoppers deal with trusted sellers, and therefore the information they obtain is reliable and not they have a state of anxiety, and one of the possible reasons for this is that shoppers have a high level of awareness, and what confirms this is that most of the research sample have a

bachelor's degree or more, and this result is consistent with the findings of the study Bjelland et al. (2008) that low educational levels are associated with a high degree of anxiety. The other reason is that the respondents' experience in online shopping led to this result, and this is consistent with what some studies have found that anxiety occurs when dealing with new systems (Donmez-Turan, 2019).

The results showed that there is no mediating role for information anxiety between information overload and online purchase decisions, and perhaps the reason for this is the absence of anxiety when purchasing products over the Internet, for shoppers to know the types of products that suit their needs and that they obtain from reliable sources.

Despite the impact of social media fatigue on the occurrence of information anxiety, the latter did not mediate the relationship between media fatigue and purchasing decisions.

7. Conclusion

The development in mobile phone technology and the Internet has led to the expansion of online shopping so that it is no longer limited to local markets (Jin and Lim, 2021).

Based on the results of the current study, it can be concluded that the information anxiety of online shoppers is caused by information overload, meaning that the large number of information available on the Internet regarding the products offered in electronic stores constitutes concern among shoppers due to their low ability to process and perceive the large amount of information, in addition to the conflict of some information and its contradictions. In addition to the above, the state of information anxiety occurs due to the tiredness of using social media, and all of the above affects the decision of shoppers to purchase products, as this makes them face two negative situations: either making a wrong purchase decision, which may consist in buying products at a high price or with low quality. Or not make a purchase decision at all.

8. Implications, Limitations and Future Research

We believe that the beneficiaries of the results of this research are two categories, the first being the internet shoppers, by not searching for information about products more than they should, to prevent the occurrence of information anxiety, because the excess information may confuse the shoppers.

The second category is for marketers, by dividing the market into market segments, then working on designing a promotional program that suits the target group so that this category receives the appropriate information about the product.

The results of the current study have theoretical and practical implications. On the theoretical level, this study examined the influence of a group of factors related

to making an online purchase decision that previous studies did not fully address.

On the practical level, the results of the current study can benefit two categories of beneficiaries, the first being the internet shoppers, by not searching for more information about products than they should, to prevent the occurrence of information anxiety, because the excess information may confuse Minds of individuals.

The second category is for marketers, by dividing the market into market segments, then working on designing a promotional program that suits the target group so that this category receives the appropriate information about the product.

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