مجلة تنمية الرافدين

اسم المقال: تأثير كثرة المعلومات والإرهاق التكنولوجي في القلق المعلوماتي للمتسوقين
اسم الكاتب: رشا دريد حنا، بسام عبدالرحمن يوسف اليوزبكي، عامر عبد الرزاق الناصر
رابط ثابت: https://political-encyclopedia.org/index.php/library/10197
تاريخ الاسترداد: 2026/11/01 06:56 +03

الموسوعة السياسيّة هي مبادرة أكاديمية غير هادفة للربح، تساعد الباحثين والطلاب على الوصول واستخدام وبناء مجموعات أوسع من المحتوى العلمي العربي في مجال علم السياسة واستخدامها في الأرشيف الرقمي الموثوق به لإغناء المحتوى العربي على الإنترنت.
لمزيد من المعلومات حول الموسوعة السياسيّة – Encyclopedia Political، يرجى التواصل على info@political-encyclopedia.org

استخدامكم لأرشيف مكتبة الموسوعة السياسيّة – Encyclopedia Political يعني موافقتك على شروط وأحكام الاستخدام المتاحة على الموقع https://political-encyclopedia.org/terms-of-use

تم الحصول على هذا المقال من موقع مجلة تنمية الرافدين كلية الإدارة والاقتصاد / جامعة الموصل ورفده في مكتبة الموسوعة السياسيّة مستوفياً شروط حقوق الملكية الفكريّة ومتطلبات رخصة المشاع الإبداعي التي ينضوي المقال تحتها.

Journal of
TANMIYAT AL-RAFIDAIN
(TANRA)
A scientific, quarterly, international, open access, and peer-reviewed journal

Vol. 44, No. 146
June. 2025

© University of Mosul | College of Administration and Economics, *Mosul, Iraq.*

TANRA retain the copyright of published articles, which is released under a "Creative Commons Attribution License for CC-BY-4.0" enabling the unrestricted use, distribution, and reproduction of an article in any medium, provided that the original work is properly cited.

Citation: Hanna, Rasha D., Alyouzbaky, Bassam A. & Abdulmuhsin , Amir A. (2025). The effect of too much information and technology exhaustion on shoppers' information anxiety. *TANMIYAT AL-RAFIDAIN*, *44* (146), 199 - 213.https://doi.org/10.33899/tanra.2025.156231.1440

P-ISSN: 1609-591X
e-ISSN: 2664-276X
tanmiyat.uomosul.edu.iq

Research Paper

The Effect of Too Much Information and Technology Exhaustion on Shoppers' Information Anxiety

Rasha Duraid Hanna[1], Bassam A. Alyouzbaky[2], Amir A. Abdulmuhsin[3]

[1,2,3]Department of Management Information Systems, College of Administration & Economics, University of Mosul, Mosul, Iraq.

Corresponding author: Rasha Duraid Hanna
rasha_duriad@uomosul.edu.iq

DOI: https://doi.org/10.33899/tanra.2025.156231.1440

Article History: *Received*: 15/12/2024; *Revised*: 30/1/2025; *Accepted*: 23/2/2025 ; *Published*: 1/6/2025

Abstract

The phenomenon of too much information is one of the phenomena accompanying the spread of information technology and the Internet, which made users face amounts of information that exceed their needs and their ability to deal with it, which led to a number of negative effects, perhaps the most prominent of which is the state of information fatigue and anxiety. The main problem that the current research seeks to address is the state of anxiety facing online shoppers resulting from the abundance of information related to products in a way that exceeds the shoppers' ability to deal with it. Therefore, the research aims to identify the impact of too much information and exhaustion resulting from the use of information technology on the occurrence of information anxiety among online shoppers. To achieve this, the quantitative approach was adopted by designing an electronic questionnaire distributed to a sample of online shoppers with a size of 326 participants, and the data were analyzed using structural equation modeling using SmartPLS 4. The study reached a set of results, the most prominent of which is the presence of a direct impact of too much information on the occurrence of anxiety among online shoppers.

Keywords
Too much information, Information anxiety, Technology exhaustion, Online shopping

ورقة بحثي

تأثير كثرة المعلومات والإرهاق التكنولوجي في القلق المعلوماتي للمتسوقين

رشا دريد حنا[1]، بسام عبدالرحمن يوسف اليوزبكي[2]، عامر عبد الرزاق الناصر[3]

[1,2,3] قسم نظم المعلومات الادارية، كلية الإدارة والاقتصاد، جامعة الموصل، الموصل، العراق.

المؤلف المراسل: رشا دريد حنا (rasha_duriad@uomosul.edu.iq)

DOI: https://doi.org/10.33899/tanra.2025.156231.1440

تاريخ المقالة: *الاستلام:* 2024/12/15؛ *التعديل والتنقيح:*2025/1/30؛ *القبول:*2025/2/23؛ *النشر:* 2025/6/1.

المستخلص

تعد ظاهرة كثرة المعلومات من الظواهر المصاحبة لانتشار تقنيات المعلومات والإنترنت والتي جعلت المستخدمين يواجهون كميات من المعلومات تفوق احتياجاتهم وقدرتهم للتعامل معها، والتي أدت إلى عدد من التأثيرات السلبية ولعل من أبرزها حالة الإرهاق التكنولوجي والقلق المعلوماتي. تتمثل المشكلة الرئيسة التي يسعى البحث الحالي لمعالجتها بحالة القلق التي تواجه المتسوقين عبر الإنترنت والناجمة عن كثرة المعلومات المتعلقة بالمنتجات على نحو يفوق قدرات المتسوقين للتعامل معها. لذا يهدف البحث للتعرف على تأثير كثرة المعلومات والإرهاق الناجم عن استعمال تكنولوجيا المعلومات في حصول حالة القلق المعلوماتي لدى المتسوقين عبر الإنترنت. ولتحقيق ذلك تم اعتماد المنهج الكمي، وجُمعت البيانات عن طريق تصميم استبانة إلكترونية وزعت على عينة من المتسوقين عبر الإنترنت بلغ حجمها 326 مشاركًا، وحُللت البيانات عن طريق النمذجة بالمعادلات البنائية باستعمال برمجية (SmartPLS 4). توصلت البحث إلى وجود تأثير مباشر لكثرة المعلومات في حدوث حالتي الإرهاق التكنولوجي والقلق المعلوماتي لدى المتسوقين عبر الإنترنت.

الكلمات المفتاحية:

كثرة المعلومات، قلق المعلومات، الإرهاق التكنولوجي، التسوق عبر الإنترنت

مجلة

تنمية الرافدين

***(TANRA):* مجلة علمية، فصلية، دولية، مفتوحة الوصول، محكمة.**

المجلد (44)، العدد (146)، حزيران 2025

© جامعة الموصل | كلية الإدارة والاقتصاد، *الموصل، العراق.*

تحتفظ (**TANRA**) بحقوق الطبع والنشر للمقالات المنشورة، والتي يتم إصدارها بموجب ترخيص Creative Commons Attribution) (CC-BY-4.0) الذي يتيح الاستخدام، والتوزيع، والاستنساخ غير المقيد وتوزيع للمقالة في أي وسيط نقل، بشرط اقتباس العمل الأصلي بشكل صحيح.

الاقتباس: حنا، رشا دريد، اليوزبكي، بسام عبدالرحمن يوسف، الناصر، عامر عبد الرزاق (2025). تأثير كثرة المعلومات والإرهاق التكنولوجي في القلق المعلوماتي للمتسوقين. *تنمية الرافدين*، *44*(146)، 199 – 213.
https://doi.org/10.33899/tanra.2025.156231.1440

P-ISSN: 1609-591X
e-ISSN: 2664-276X
tanmiyat.uomosul.edu.iq

1. Introduction

New fundamental concepts for administrations worldwide have emerged with the various developments in management science and their increasing connection with information technology. The idea of information anxiety is modern and essential nowadays. (Allison, 2008). Information anxiety is associated with a person's feeling of ambiguity and uncertainty. Too much information often leads to a negative state in individuals called information anxiety (Eppler & Mengis, 2004; Gouws & Tarp, 2017). In the Internet age, users have to deal with a large amount of information (Fu et al., 2020).

Too much information negatively affects people's perceptions because of the large amounts of information (Shrivastav & Hiltz, 2013). Behavioral economics has focused on subjective decisions that consumers can make in the presence of significant influences surrounding them (Reyes-Menendez et al., 2019).

Too much information has become one of the biggest challenges of the modern era (Roetzel & Fehrenbacher, 2020). The problem of too much information is not something new, but the emergence of the Internet has increased this phenomenon. (Al-Kumaim, 2020). Based on the above, the following research questions can be formulated:

- Does an increase in too much information contribute to higher levels of information anxiety?
- Is there a relationship between increased technology exhaustion and information anxiety?

2. Theoretical background

The current section aims to introduce the terms related to article variables, as well as to review some relevant studies.

2.1 Too much information

The phenomenon of too much information is one of the problems currently facing most users of social networks (Umeozor, 2017) because these users obtain information that exceeds their ability to deal with it (Islam et al., 2018; Mustapar et al., 2016).

When the amount of information individuals receive exceeds their cognitive ability to process it, a state of too information occurs (Rufeng et al., 2023). This means that limitations related to individuals' mental abilities, such as memory, lead to this state (Gunaratne et al., 2020). Individuals may not feel this state until symptoms appear (Mustapar et al., 2016).

The reasons for too much information include the presence of large amounts of heterogeneous information on the Internet, which makes it difficult to evaluate and select the appropriate information (Schmitt et al., 2018). The limited time available to users to obtain appropriate information, and its low quality, can also lead to this situation (Özkan & Tolon, 2015), in addition to the provision of information in a non-sequential manner (Yu et al., 2019).

One of the negative effects of too much information is on the shopping process, which refers to the amount of information that online shoppers encounter when purchasing

products (Huang & Zhou, 2019). It is likely that shoppers' purchasing decisions will be affected when online shopping stores increase, resulting in obtaining massive amounts of information about products (Ding et al., 2017).

In online shopping, too much information denotes the abundance of information a shopper encounters while attempting to make a purchase decision (Melinat et al., 2014)(Huang & Zhou, 2019).

2.2 Information Anxiety

Information anxiety is a negative phenomenon that hinders many members of society from achieving their goals (Eklof, 2013).

Anxiety is commonly described as an emotional state of discomfort resulting from the expectation of negative outcomes (Van Kampen, 2003).

Information anxiety is the stress caused by the inability to access, use, or understand necessary information, resulting from disorganization, too much, or too little information (Shrivastav & Hiltz, 2013). It occurs when individuals attempt to absorb large amounts of information, become overwhelmed by its volume, and are unable to effectively process it (Eklof, 2013). Individuals with information anxiety feel unable to filter out all relevant information, unable to evaluate it, and anxious about its danger. (Papić et al., 2012). Users' anxiety about new information systems does not negatively affect the system unless they believe the new system is complex or challenging to use (Donmez-Turan, 2019).

Information anxiety relates to the amount of information, its reception, processing, and application (Hartog, 2017).

Information anxiety is highly prevalent in the online shopping environment due to the numerous risks that may arise, including credit card fraud and the violation of users' privacy (Celik, 2016).

2.3 Technology exhaustion

The information systems literature has used the term "exhaustion" to express an individual's psychological response to stressful situations (Yu et al., 2018). Exhaustion is the user's weariness related to their activities due to overwork or stress (Maier et al., 2015). It represents the depletion of mental resources related to prolonged engagement in situations that require significant effort (Schaufeli et al., 1995). People become overly overwhelmed when using new information technology (Hessari & Nategh, 2022). IT users in general and social media users in particular feel exhausted when overwhelmed with activities that require them to interact with many contacts and read a large amount of content (Fu et al., 2020).

One of the reasons for technology exhaustion among users is technostress. (Cao & Sun, 2018), which is a feeling of anxiety and a negative impact on technology users' thoughts and behaviors, often leading to poor performance (Tagurum YO, Okonoda KM, Miner CA, 2017). Singh et al. (2022) Found that forced remote work through personal digital platforms leads to technology exhaustion.

The results of the study by Ragu-Nathan & Tarafdar (2008) Revealed that technology exhaustion has serious consequences, including job exhaustion.

Resilient individuals can cope with technology exhaustion through practical methods. (Li & Nishikawa, 2012), such as by seeking technical support or developing their technical skills (Tarafdar et al., 2019).

3. Research model

Figure 1 illustrates the research model, which was developed based on a large literature on too much information, as an independent variable, affects both information anxiety and technology exhaustion of online shoppers as dependent variables, on the one hand, and to investigate the effect of technology exhaustion on information anxiety, on the other hand.

3.1 Too much information and information anxiety

Anxiety is an excessive emotional response to fear characterized by heightened physiological activity accompanied by tension (Atanasoff & Venable, 2017).
When people feel anxious about technology, they tend to overestimate the effort required to use it and underestimate the benefits they can get from it. (Celik, 2016). Too much information leads to anxiety and stress, as well as a lack of concentration. (Renjith, 2017). Long-term exposure to too much information can cause stress, anxiety, sadness, and depression in individuals. (Bawden & Robinson, 2009). There are several reasons for information anxiety: the individual's inability to understand information, the amount of information, and not knowing where the information is located. (Girard & Allison, 2008). Based on the above, the following hypothesis can be formulated:
H1: Too much information (TMI) has a positive effect on the information anxiety (IA)
H2: Too much information (TMI) has a positive effect on the Technology exhaustion (TE)

3.2 Technology exhaustion and information anxiety

Although information technology brings significant benefits to users, it can also negatively affect them by causing technological stress. (Ayyagari et al., 2011). Technological stress causes physical and psychological problems for users. (Tagurum YO, Okonoda KM, Miner CA, 2017).
(Estrada-Muñoz et al., 2022) The study found that technostress can lead to increased levels of anxiety and stress in individuals. The study showed that constant interaction with technology without adequate breaks can cause psychological stress, which increases anxiety levels.
Consequently, the following hypothesis is suggested:
H2: Technology exhaustion (TE) has positive effects on information anxiety (IA)

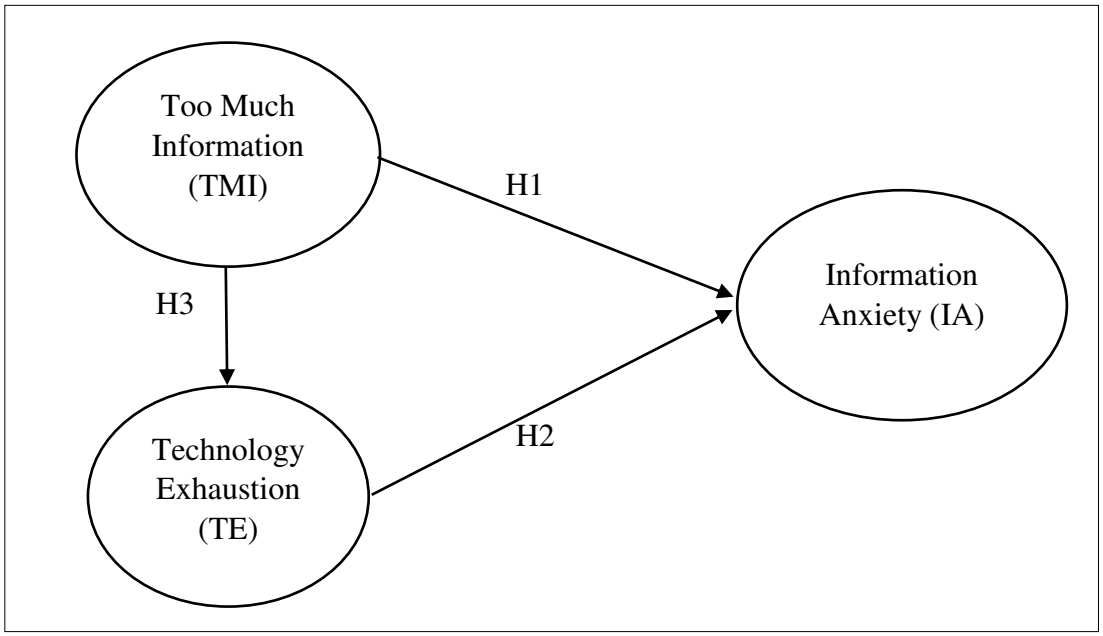


Figure (1.) Research Model

4. Research methodology

4.1 Construct measurement

The current research used ready-made scales prepared in the literature, as shown in Table 1. The scales were translated into Arabic to be compatible with the respondents in the research environment, and a five-point Likert scale was used. Appendix A shows the research questionnaire.

Table (1). Research measurement

Constructs	Items	Sources
Too Much Information (TMI)	5	(Zhang et al., 2016) (Karr-Wisniewski & Lu, 2010)(Ayyagari, 2012)
Technology Exhaustion (TE)	5	(Ayyagari et al., 2011) (Mette et al., 2014)
Information Anxiety (IA)	5	(Girard & Allison, 2008) (Wurman, 1989)

4.2 Data gathering and sample demographic

Data from the research field were collected using an electronic questionnaire, and 326 valid responses were obtained for statistical analysis.

The results of Table 2 reveal that the participants of the age group 15-35 have obtained the highest rate of 75%, which indicates that the youth category is the most oriented towards online shopping. As for the gender of the respondents, it turns out that the percentage of males was approximately 32%, while 68% were females, which

means that females are more oriented towards electronic shopping compared to males. Finally, it is clear from the sample description results that most of the participants hold an undergraduate degree 56.1%.

Table (2). Sample demographic

Category	Item	Counts	%
Age	15-35	245	75.2
	36-55	72	22.1
	56-75	9	2.8
Gender	Male	103	31.6
	Female	223	68.4
Educational level	High school	64	19.6
	Undergraduate	183	56.2
	Postgraduate	79	24.2

5. Data analysis

Structural equation modeling (SEM) was performed using SmartPLS 4 software to analyze the data and test the hypotheses. The analysis was conducted in two stages. The standard model represented the first stage to verify its quality, while the structural model represented the second stage to test the hypotheses.

5.1 Measurement model

The PLS-SEM algorithm method was used to verify the quality of the model, depending on the consistency indicators.

Table 3 shows the convergent validity based on the loadings of the indicators on the latent constructs, which ranged between 0.62 and 0.81, which is higher than the recommended cut-off score of 0.60 (Awang, 2012). The TMI 4 indicator was excluded because it did not meet the required standard.

It is also evident that there is no multicollinearity between the variables, depending on the values of the variance inflation factor VIF, which ranged between 1.2 and 2.4, which are less than the threshold of five recommended by (Hair et al., 2011).

The results show that composite reliability is achieved in the latent variables based on CR values that exceed the recommended threshold of 0.70 (Nunnally, 1978).

Table (3). Convergent validity and reliability

Variables	Items	Outer loadings	VIF	Cronbach's alpha	CR (rho_a)	AVE
IA	IA1	0.777	1.755	0.847	0.849	0.619
	IA2	0.766	1.686			
	IA3	0.797	1.92			
	IA4	0.788	2.382			
	IA5	0.806	2.366			

TE	TE1	0.646	1.321	0.821	0.823	0.586
	TE2	0.792	1.733			
	TE3	0.81	2.077			
	TE4	0.814	2.151			
	TE5	0.752	1.786			
TMI	TMI1	0.615	1.21	0.684	0.70	0.513
	TMI2	0.757	1.316			
	TMI3	0.775	1.44			
	TMI5	0.709	1.241			

Table 4 demonstrates that the research model satisfies discriminant validity, with the square root of each construct's AVE (on the diagonal) exceeding the inter-construct correlations in the same row and column.

Table (4). Discriminant validity

Construct	IA	TE	TMI
IA	0.787		
TE	0.518	0.765	
TMI	0.426	0.516	0.716

Note: The diagonal is the square root of AVE

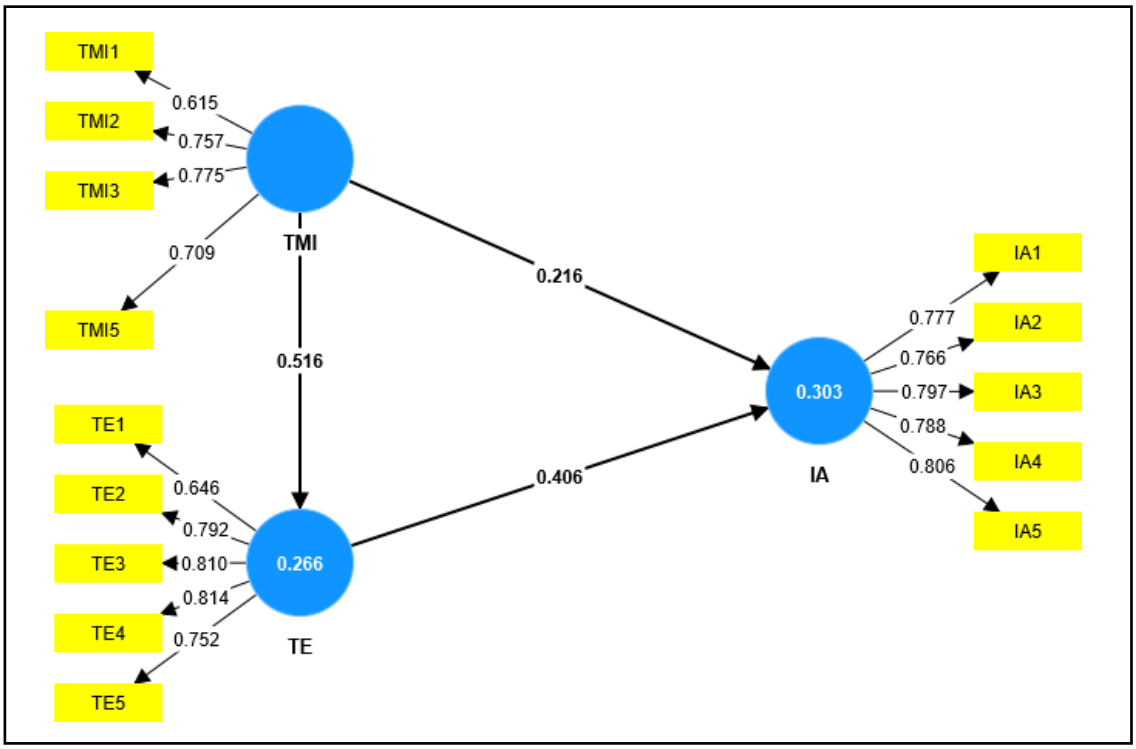


Figure (3). Algorithm method

5.2 Hypothesis Testing

The Bootstrapping method was used in SmartPLS software to test the hypotheses. It is clear from Table 5 and Figure 3 that there is an effect of too much information on information anxiety (β = 0.216, t = 3.865), which supports H1, and it is clear that too much information affects techno exhaustion (β = 0.516, t = 11.947), which supports H3. Finally, techno exhaustion has an effect on information anxiety (β = 0.406, t = 7.322), which means that H2 is acceptable.

Table (5). Hypothesis Test Results

Path	Beta	T statistics	P values	Decision
H1: TMI ➔ IA	0.216	3.865	0.000	Accepted
H2: TMI ➔TE	0.516	11.947	0.000	Accepted
H3: TE ➔ IA	0.406	7.322	0.000	Accepted

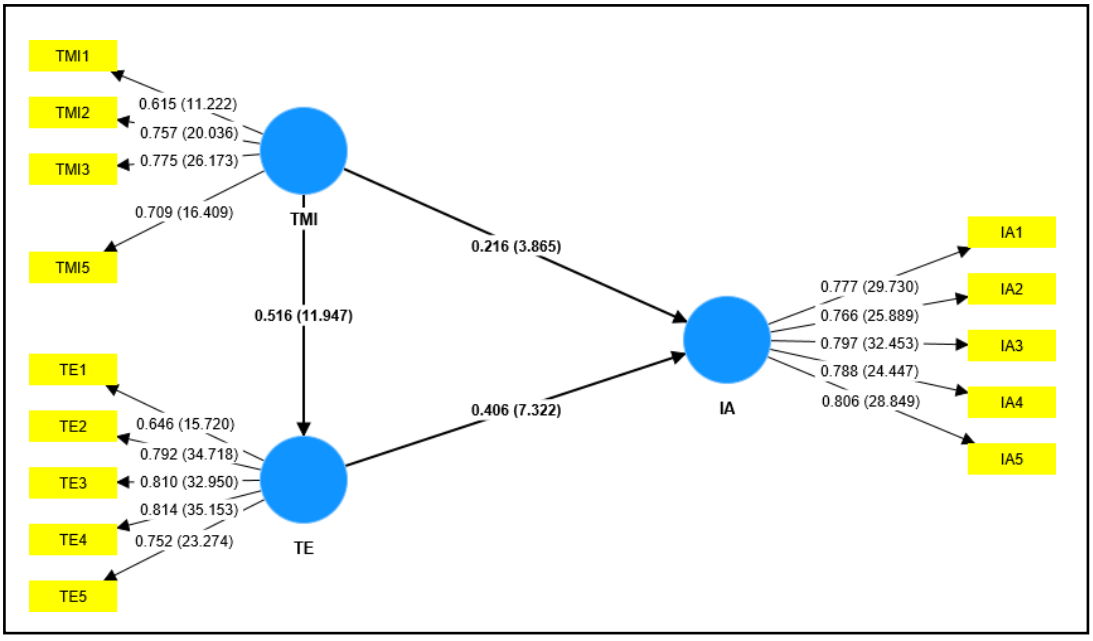


Figure (3). Bootstrapping model

6. Dissection

The results of the current study revealed that too much information leads to anxiety among online shoppers. This occurs due to the large amount of information shoppers receive, as well as the fact that product-related information, such as prices, is sometimes conflicting. This result is consistent with the findings of Swar et al., (2017). The results also showed that tech fatigue leads to anxiety among online shoppers, which causes confusion, impaired concentration, and information overlap. This result is consistent with Yang and Lin's (2018) study.

7. Conclusion

This study examined the effect of too much information and technology exhaustion on information anxiety among online shoppers. The results of the hypothesis testing revealed that the abundance of information related to products that online shoppers encounter leads to information anxiety due to the inability to distinguish the correct information. The exhaustion from using information technologies such as social networks also causes anxiety among them, due to the long time shoppers must spend to obtain the appropriate information. One of the implications of these results is that online shoppers should not expand their knowledge of product specifications on many sites, especially those that are not official, to reduce the distraction that may lead to information anxiety. We suggest relying on the original sites that sell the products, and it is also necessary to participate in communication groups that provide objective reviews of the products to be purchased.

- **Acknowledgements**

The authors thank the College of Administration and Economics for their support.

- **Funding**

The authors didn't receive any financial support from any entity.

- **Author Disclosures**

The authors declare that they have no conflicts of interest or disclosures related to this research.

References

Atanasoff, L., & Venable, M. A. (2017). Technostress: Implications for adults in the workforce. *The career development quarterly*, *65*(4), 326-338. https://doi.org/10.1002/cdq.12111

Awang, Z. (2012). Structual Equation Modeling Using AMOS Graphic. Penerbit UiTM Press. 167 .

Al-Kumaim, N. H., Hassan, S. H., Mahmood, A., Qureshi, M. I., & Khan, N. (2020). Exploring the determinants that control information overload and postgraduate research performance: conceptual model and implications for future research. *International Journal of Psychosocial Rehabilitation*, *24*(01), 918–43. https://doi.org/10.37200/IJPR/V24I1/PR200198

Ayyagari, R. (2012). Impact of Information Overlaod and Task-Technology Fit. *Proceedings of the Southern Association for Information Systems Conference*, Atlanta, GA, USA March 23rd-24th, 2012.https://aisel.aisnet.org/sais2012/4/

Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological antecedents and implications. *MIS quarterly*, 35(4), 831-858. https://doi.org/10.2307/41409963

Bawden, D., & Robinson, L. (2009). The dark side of information: overload, anxiety and other paradoxes and pathologies. *Journal of information science*, *35*(2), 180-191. https://doi.org/10.1177/0165551508095781

Cao, X., & Sun, J. (2018). Exploring the effect of overload on the discontinuous intention of social media users: An SOR perspective. *Computers in human behavior*, *81*, 10-18. https://doi.org/10.1016/j.chb.2017.11.035

Celik, H. (2016). Customer online shopping anxiety within the Unified Theory of Acceptance and Use Technology (UTAUT) framework. *Asia Pacific journal of Marketing and logistics*, *28*(2), 278–307. https://doi.org/10.1108/APJML-05-2015-0077

Ding, X., Zhang, X., & Wang, G. (2017). Do you get tired of shopping online? Exploring the influence of information overload on subjective states towards purchase decision. https://aisel.aisnet.org/whiceb2017/7/

Donmez-Turan, A. (2020). Does unified theory of acceptance and use of technology (UTAUT) reduce resistance and anxiety of individuals towards a new system?. *Kybernetes*, *49*(5), 1381-1405. https://doi.org/10.1108/K-08-2018-0450

Eklof, A. (2013). Understanding information anxiety and how academic librarians can minimize its effects. *Public Services Quarterly*, *9*(3), 246-258. https://doi.org/10.1080/15228959.2013.815529

Eppler, M. J., & Mengis, J. (2004). The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines. *The information society*, *20*(5), 325-344. https://doi.org/10.1080/01972240490507974

Estrada-Munoz, C., Vega-Munoz, A., Boada-Grau, J., Castillo, D., Mueller-Perez, S., & Contreras-Barraza, N. (2022). Impact of techno-creators and techno-inhibitors on techno-stress manifestations in Chilean kindergarten directors in the context of the COVID-19 pandemic and teleworking. *Frontiers in Psychology*, *13*, 865784. https://doi.org/10.3389/fpsyg.2022.865784

Fu, S., Li, H., Liu, Y., Pirkkalainen, H., & Salo, M. (2020). Social media overload, exhaustion, and use discontinuance: Examining the effects of information overload, system feature overload, and social overload. *Information Processing & Management*, *57*(6), 102307. https://doi.org/10.1016/j.ipm.2020.102307

Girard, J., & Allison, M. (2008). Information anxiety: Fact, fable or fallacy. Electronic Journal of Knowledge Management, 6(2), pp37-50. https://academic-publishing.org/index.php/ejkm/article/view/816

Gouws, R. H., & Tarp, S. (2017). Information overload and data overload in lexicography. *International Journal of Lexicography*, *30*(4), 389-415. https://doi.org/10.1093/ijl/ecw030

Gunaratne, C., Baral, N., Rand, W., Garibay, I., Jayalath, C., & Senevirathna, C. (2020). The effects of information overload on online conversation dynamics. *Computational and Mathematical Organization Theory*, *26*(2), 255-276. https://doi.org/10.1007/s10588-020-09314-9

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet.

Journal of Marketing Theory and Practice, 19(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hartog, P. (2017). A generation of information anxiety: Refinements and recommendations. *The Christian Librarian*, *60*(1), 8, 44-55. https://doi.org/10.55221/2572-7478.1007

Hessari, H., & Nategh, T. (2022). Smartphone addiction can maximize or minimize job performance? Assessing the role of life invasion and techno exhaustion. Asian Journal of Business Ethics, 11(1), 159-182. https://doi.org/10.1007/s13520-022-00145-2

Huang, J., & Zhou, L. (2019). The dual roles of web personalization on consumer decision quality in online shopping: The perspective of information load. Internet Research, 29(6), 1280-1300. https://doi.org/10.1108/INTR-11-2017-0421

Islam, A. K. M., Whelan, E., & Brooks, S. (2018). Social media overload and fatigue: The moderating role of multitasking computer self-efficacy. 1–10 *in Americas Conference on Information Systems.*

Van Kampen, D. J. (2003). *Library anxiety, the information search process and doctoral use of the* library, Unpublished doctoral dissertation, University of Central Florida. United States.

Karr-Wisniewski, P., & Lu, Y. (2010). When more is too much: Operationalizing technology overload and exploring its impact on knowledge worker productivity. *Computers in human behavior*, *26*(5), 1061-1072. https://doi.org/10.1016/j.chb.2010.03.008

Li, M. H., & Nishikawa, T. (2012). The relationship between active coping and trait resilience across US and Taiwanese college student samples. *Journal of College Counseling*, *15*(2), 157-171. https://doi.org/10.1002/j.2161-1882.2012.00013.x

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2015). Giving too much social support: social overload on social networking sites. *European Journal of Information Systems*, *24*(5), 447-464.https://doi.org/10.1057/ejis.2014.3

Melinat, P., Kreuzkam, T., & Stamer, D. (2014). Information Overload: A Systematic Literature Review. *Lecture Notes in Business Information Processing* 194:72–86. https://doi.org/10.1007/978-3-319-11370-8_6

Fuglseth, A. M., & Sørebø, Ø. (2014). The effects of technostress within the context of employee use of ICT. Computers in human behavior, 40, 161-170. https://doi.org/10.1016/j.chb.2014.07.040

Mustapar, N. A., Abdullah, N., & Noor, N. L. M. (2016, August). A review towards developing a moment of information overload model. In *2016 4th International Conference on User Science and Engineering (i-USEr)* (pp. 222-226). IEEE. https://doi.org/10.1109/IUSER.2016.7857964

Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical diagnosis of mental disorders: A handbook*, 97-146. https://link.springer.com/chapter/10.1007/978-1-4684-2490-4_4

Özkan, E., & Tolon, M. (2015). The effects of information overload on consumer confusion: An examination on user generated content. *Bogazici Journal: Review of Social, Economic & Administrative Studies*, *29*(1), 27-51.

https://doi.org/10.21773/boun.29.1.2

Papić, A., Hefer, A., & Krstanović, T. (2012, May). Information anxiety: research among students about impact of different media on them. In *2012 Proceedings of the 35th International Convention MIPRO* (pp. 1244-1248). IEEE.https://ieeexplore.ieee.org/abstract/document/6240827

Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations: Conceptual development and empirical validation. Information systems research, 19(4), 417-433. https://doi.org/10.1287/isre.1070.0165

Renjith, R. (2017). The effect of information overload in digital media news content. *Communication and Media Studies*, *6*(1), 73-85.

Reyes-Menendez, A., Saura, J. R., & Filipe, F. (2019). The importance of behavioral data to identify online fake reviews for tourism businesses: A systematic review. *PeerJ Computer Science*, *5*, e219. https://doi.org/10.7717/peerj-cs.219

Roetzel, P. G., & Fehrenbacher, D. D. (2019). On the role of information overload in information systems (IS) success: Empirical evidence from decision support systems. In *International Conference on Information Systems 2019: ICIS 2019*.

https://research.monash.edu/en/publications/on-the-role-of-information-overload-in-information-systems-is-suc

Rufeng, L., Nan, Z., & Jianqiang, Z. (2023). Wechat Discontinuation Intention Analysis: How Fatigue Acts as a Moderator between Information Irrelevance, Information Overload, and Communication Overload. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, *7*(3), 61-73. https://doi.org/10.31674/ijrtbt.2021.v07i03.005

Schaufeli, W. B., M. P. Leiter, and R. Kalimo. 1995. The General Burnout Inventory: A Self-Report Questionnaire to Assess Burnout at the Workplace. Pp. 14–16 in Work, Stress and Health. Vol. 95.

Schmitt, Josephine B., Christina A. Debbelt, and Frank M. Schneider. 2018. Too Much Information? Predictors of Information Overload in the Context of Online News Exposure. *Information Communication and Society* 21(8):1151–67. https://doi.org/10.1080/1369118X.2017.1305427

Shrivastav, Harshada, and Starr Roxanne Hiltz. 2013. Information Overload in Technology-Based Education: A Meta-Analysis. *Pp. 1994–2003 in 19th Americas Conference on Information Systems, AMCIS 2013 - Hyperconnected World: Anything, Anywhere*, Anytime. Vol. 3.

https://www.academia.edu/download/56163598/Information_Overload_in_Technology-based_Education__a_Meta-Analys.pdf

Singh, P., Bala, H., Dey, B. L., & Filieri, R. (2022). Enforced remote working: The impact of digital platform-induced stress and remote working experience on technology exhaustion and subjective wellbeing. *Journal of Business Research*, *151*, 269-286. https://doi.org/10.1016/j.jbusres.2022.07.002

Swar, B., Hameed, T., & Reychav, I. (2017). Information overload, psychological ill-being, and behavioral intention to continue online healthcare information search. *Computers in human behavior*, *70*, 416-425.

https://doi.org/10.1016/j.chb.2016.12.068

Tagurum, Y. O., Okonoda, K. M., Miner, C. A., Bello, D. A., & Tagurum, D. J. (2017). Effect of technostress on job performance and coping strategies among academic staff of a tertiary institution in north-central Nigeria. *International Journal of Biomedical Research* 8(06):8. https://doi.org/10.7439/ijbr

Tarafdar, M., Cooper, C. L., & Stich, J. F. (2019). The technostress trifecta-techno eustress, techno distress and design: Theoretical directions and an agenda for research. *Information systems journal*, *29*(1), 6-42. https://doi.org/10.1111/isj.12169

Umeozor, S. N. (2017). Information overload: A case for the developing countries. In *Information and Knowledge Management* (Vol. 7, No. 12, pp. 35-9). https://core.ac.uk/reader/234672570

Wurman, Richard Saul. (1989). *Information Anxiety*. New York: Doubleday https://doi.org/10.15581/003.2.37583

Yang, H. L., & Lin, R. X. (2018). The impacts of SoLoMo services technostress on anxiety. *Journal of Electronic Commerce Research*, *19*(2), 186-200.
http://www.jecr.org/sites/default/files/2018vol19no2_Paper5.pdf

Yu, L., Cao, X., Liu, Z., & Wang, J. (2018). Excessive social media use at work: Exploring the effects of social media overload on job performance. *Information technology & people*, *31*(6), 1091-1112.http://doi:10.1108/ITP-10-2016-0237

Yu, L., Shi, C., & Cao, X. (2019). Understanding the Effect of Social Media Overload on Academic Performance: A Stressor-Strain-Outcome Perspective. *Proceedings of the 52nd Hawaii International Conference on System Sciences* 6:2657–66https://doi.org/10.24251/hicss.2019.320

Zhang, S., Zhao, L., Lu, Y., & Yang, J. (2016). Do you get tired of socializing? An empirical explanation of discontinuous usage behaviour in social network services. *Information & management*, *53*(7), 904-914. https://doi.org/10.1016/j.im.2016.03.006

Appendix A: Research Questionnaire

	Too much information	
1	I am often distracted by the excessive amount of information available to me.	(Zhang et al., 2016) (Karr-Wisniewski & Lu, 2010)
2	I am often distracted by the excessive amount of information for business decision-making.	
3	I am overwhelmed by the amount of information I have to process daily.	
4	The amount of information available due to ICTs is overwhelming.	(Ayyagari, 2012)
5	ICTs create more information than I can cope with.	
	Technology Exhaustion	
1	I feel drained from activities that require me to use ICTs.	(Ayyagari, 2012)
2	I feel tired from my ICT activities.	
3	Working all day with ICTs is a strain for me.	
4	I am forced to change my work habits to adapt to new ICT solutions	(Mette et al., 2014)
5	I have a higher workload because of increased ICT complexity.	
	Information anxiety	
1	I am unable to understand the information required to complete the purchase.	(Girard & Allison, 2008) (Wurman, 1989)
2	I feel overwhelmed by the information I need to understand when purchasing products.	
3	I cannot determine where to find the information I need online.	
4	I am sure that the information I need exists on the internet, but I do not know where to find it.	
5	I know the information I need exists, but I cannot access it.	