Original Research

FACTORS INFLUENCING EXPECTANT MOTHERS' CONTINUED USE OF DIGITAL HEALTH INFORMATION

Faktor-Faktor yang Mempengaruhi Kelanjutan Penggunaan Informasi Kesehatan Digital oleh Ibu Hamil

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Abstract

Background: Expectant women receive healthcare education at antenatal care (ANC) clinics, but it is noteworthy that expectant mothers tend to seek information from various sources beyond their primary healthcare providers.
Aims: The study aims to investigate determinants influencing expectant mothers' continuous use of digital media for pregnancy information.
Methods: The study involves participants of expectant women who attend ANC clinics in five municipal hospitals. The hypotheses were tested with 580 responses using Structural Equation Modeling (SEM) via SmartPLS version 4.
Results: The findings revealed that social media healthcare information usage, perceived severity, and emotional support on social media influence expectant mothers' decisions to continue using digital media for healthcare purposes. However, the effect of perceived vulnerability on social media healthcare information usage was insignificant.
Conclusion: This study concludes that expectant mothers will continue to adopt digital platforms to access healthcare information. The findings provide recommendations to help healthcare providers advance antenatal care.

Keywords: emotional support, healthcare, expectant women, SMHIC, social media

Abstrak

Latar Belakang: Wanita hamil menerima pendidikan kesehatan di klinik perawatan antenatal (ANC), namun perlu diperhatikan bahwa ibu hamil cenderung mencari informasi dari berbagai sumber di luar penyedia layanan kesehatan utama mereka.
Tujuan: Tujuan dari penelitian ini adalah untuk menyelidiki faktor-faktor penentu yang mempengaruhi penggunaan media digital secara terus-menerus untuk informasi kehamilan oleh ibu hamil.
Metode: Penelitian ini melibatkan partisipasi wanita hamil yang mengunjungi klinik ANC di lima rumah sakit kota. Hipotesis diuji dengan 580 tanggapan menggunakan Structural Equation Modeling (SEM) melalui SmartPLS versi 4.
Hasil: Temuan ini mengungkapkan bahwa penggunaan informasi layanan kesehatan di media sosial, persepsi tingkat keparahan, dan dukungan emosional di media sosial memengaruhi keputusan ibu hamil untuk terus menggunakan media digital untuk tujuan layanan kesehatan. Namun, pengaruh persepsi kerentanan terhadap penggunaan informasi layanan kesehatan di media sosial tidak signifikan.
Kesimpulan: Studi ini menyimpulkan bahwa ibu hamil akan terus mengadopsi platform digital untuk mengakses informasi kesehatan. Temuan ini memberikan rekomendasi untuk membantu penyedia layanan kesehatan meningkatkan layanan antenatal.

Kata kunci: dukungan emosional, ibu hamil, kesehatan, media sosial, SMHIC

Introduction

Pregnancy is a moment of transformation that may be both gratifying and stressful (Downe *et al.,* 2018). It is a period of change that brings physical and emotional challenges to expectant women (Smith *et al.,* 2020).

In order to increase the likelihood of a good pregnancy and delivery, it is imperative that expectant women have access to relevant health information (Ngozi, Anasi, and Allison, 2018). Expectant women have a lot of responsibilities since their mental and physical situations are unique (Hamzehei *et al.* 2018). Per the nature of their condition, they require a lot of information about pregnancy and childcare. Expectant women experience a period of profound change on all fronts, including physical, social, and psychological changes (Özkan, Şengül and Sözbir, 2021). Expectant women attach great importance to the timely availability of information, as they often experience an urgent need to obtain knowledge, especially concerning the well-being of their developing fetus (Jaks *et al.* 2019). Given the multifaceted physiological transformations that transpire during pregnancy, it is essential that expectant mothers receive adequate care from healthcare professionals in an accredited health facility. One of the facilities that has been designated for healthcare education for expectant women is the Antenatal Care [ANC] Clinic.

Notwithstanding, there are other means, including digital sources, that expectant mothers use to obtain healthcare information. The new digital media available has provided new avenues for the dissemination of healthcare information (Ofori, Antwi, and Owusu-Ansah, 2021; Ofori and Wang, 2022). A recent study shows that digital sources are among the most popular types of information sources utilized by expectant women (Harpel, 2018; Broeke *et al.*, 2022). Investigations revealed that diverse determinants significantly impact users' decisions to adopt social media platforms (Ofori and Oduro-Asante, 2022; Ofori, 2023a).

Studies show that expectant women adopt digital health for various purposes (Hamzehei *et al.*, 2018; Harpel, 2018; Broeke *et al.*, 2022; Damayanti *et al.*, 2022). However, little has been done when it comes to combining the use behavior construct of the Unified Theory of Acceptance and Use of Technology (UTAUT) model, emotional support of the Social Support Model, and threat appraisal of the Protection Motivation Theory (PMT) to study expectant women's health.

The overarching aim of this study is to determine the factors that influence expectant women's continued usage of digital healthcare information, especially with regard to social media platforms. This research assesses expectant women's persistence in using social media healthcare information through emotional support on social media, social media healthcare information usage, perceived vulnerability, and perceived severity. Considering the above review, we hypothesized the following:

H1: Emotional support received on digital platforms has a significant effect on the continued usage of digital platforms.
H2: Social media healthcare information usage influences expectant women's decision to continue digital platform usage.
H3: Perceived vulnerability relates positively to the continuance usage of social media for healthcare information.
H4: Perceived severity has a significant influence on the continuance of usage of ocial media healthcare information

Method

This study utilized the quantitative research method, employing a questionnaire as the primary instrument for data collection. Convenience sampling was used to select participants for the study and the data collection period spanned from May to August 2022. To validate the social media healthcare information continuance (SMHIC) usage model, the study targeted participants from five hospitals located in the Greater Accra region of Ghana. These facilities include Lekma Hospital, Police Hospital, Pentecost Hospital Madina, St.

John's Hospital and Fertility Centre, and Trust Mother and Child Hospital.

The participants selected for this study consisted of expectant women who were receiving prenatal care and possessed the ability to read and write. To ensure compliance with ethical standards, the researchers obtained approval from both the Ghana Health Service Ethics Review Committee (GHSERC:001/01/22) and the hospital authorities. The survey was initiated by providing expectant women with information regarding the purpose and scope of the study. Subsequently, those who expressed their willingness to participate were provided with a consent sheet for endorsement. The questionnaire was either administered by the principal investigator or the field agents. Upon completion, participants were presented with a token package of three pieces of bar soap.

The questionnaire was divided into two sections. The initial part consisted of demographic data, while the subsequent section comprised questions pertaining to the constructs used in this research. The study used a model consisting of five variables, comprising four exogenous constructs and one endogenous construct. The model was assessed using 18 measurement items, excluding all demographic variables. The ESPSM items were adapted from the work of Lin, Wang and Hajli (2019), the SMHIU items were from Venkatesh *et al.* (2003) and Puspitasari and Firdauzy (2019). Additionally, the SMHIC items were developed based on items from Chiu, Cho and Chi (2020), while the PS and PV were adapted from Jun, Park and Cho (2019) and Shatta *et al.* (2020). The question from the second section used a five-point Likert scale, where one (1) indicated strongly disagree and five (5) represented strongly agree.

The concepts of the study were explained as follows: Emotional support on social media refers to the extent to which expectant women regard digital platforms as providing a valuable chance to receive care and attention from other users. Social media healthcare information usage is explained as the utilization of digital platforms by expectant women to manage their pregnancy through accessing healthcare-related information. Perceived vulnerability is explained as the expectant woman's assessment of the likelihood of encountering a possible risk during the course of her pregnancy. Meanwhile, perceived severity refers to the degree of intensity associated with the potential risks of pregnancy for the overall well-being of expectant women. The continued use of healthcare information on social media is explained as expectant women's persistent use of digital health information.

Hypotheses were formulated, proposing that ESPSM, SMHIU, PS, and PV would exert an influence on SMHIC. This implies that the variables ESPSM, SMHIU, PS, and PV are expected to have a statistically significant positive impact on the dependent variable SMHIC.

The data was analyzed employing the SmartPLS. To evaluate the measurement and structural models, the researchers conducted an analysis of convergent validity (CV), internal consistency reliability, and discriminant validity (DV). The assessment of the CV was conducted by utilizing the outer loadings and average variance extracted (AVE). According to the recommendations put forward by Hair *et al.* (2013), it is advised that the outer loadings values should be equal to or more than 0.70. Additionally, Hair *et al.* (2017) indicate that the average variance extracted (AVE) should be at least 0.50. Once again, the researchers employed composite reliability and Cronbach's alpha as measures of internal consistency reliability, with a recommended threshold value of > 0.70.

In addition, the assessment of discriminant validity (DV) was conducted by utilizing the heterotrait-monotrait ratio test (HTMT), with a recommended threshold of less than 0.9, as suggested by Henseler, Ringle and Sarstedt, (2015).

Table 1. Results of demographic characteristics

Variables	Category	Frequency	Percentage (%)
Age Group	18-25 year	107	18
	26-30 year	260	45
	31-40 year	207	36
	41 year and above	6	1
	Total	580	100
Educational Level	High School	246	42.4
	Diploma	119	30.5
	Degree	177	20.5
	Postgraduate	19	3.3
	Other	19	3.3
	Total	580	100
Pregnancy Stage	1st Trimester	151	26
	2nd Trimester	224	39
	3rd Trimester	205	35
	Total	580	100
Number of Pregnancy	First Pregnancy	256	44.1
	Second Pregnancy	231	39.8
	Third Pregnancy	37	6.4
	Fourth Pregnancy or More	56	9.7
	Total	580	100

Source: Authors' Report

Result and Discussion

Results of Demographic variables

As illustrated in Table 1, the age distribution of the respondents reveals several noteworthy findings: 1) A total of 107 respondents, constituting 18% of the sample, fell within the age range of 18–25 years. The largest segment of participants, 260 individuals, or 45% of the sample, belonged to the 26–30 age group. Additionally, 207 respondents, accounting for 36% of the sample, were situated within the age bracket of 31–40 years. 2) A smaller fraction of the respondents, precisely six individuals, representing 1.0% of the sample, were found to be over 40 years of age.

These findings provide a comprehensive overview of the age distribution among the expectant women who participated in the study, offering valuable demographic insights that prove relevant to the research objective. The age composition of the sample population and other demographic information indicate that expectant women of all ages and different stages are interested in knowing more about pregnancy, which significantly informs the subsequent analyses and interpretations of the study's outcomes.

The Measurement Model

This model consists of five variables, namely ESPSM, PS, PV, SMHIU, and SMHIC, which had 18 items. The outer loadings of the items ESPSM to SMHIU were greater than 0.6, which indicates good validity. Again, average variance extracted (AVE) values for all the constructs were greater than 0.50, showing adequate validity. Cronbach's alpha and composite reliability had values > 0.78. Discriminant validity was also assessed using HTMT, and the values obtained were < 0.9, as recommended (Henseler, Ringle and Sarstedt, 2015). All the results are presented in Table 2.

Table 2. Results of the measurement model

Constructs	Items	Convergent validity		Internal Reliability		Discriminant Validity
		Outer loadings	AVE	Cronbach's alpha	CR	HTMT Less than 1
Emotional support on social media	ESPSM1	0.771				
	ESPSM2	0.884	0.648	0.844	0.846	Yes
	ESPSM3	0.753				
Perceived severity	PS1	0.863				
	PS2	0.804				
	PS3	0.760	0.625	0.894	0.892	Yes
	PS4	0.722				
	PS5	0.796				
Perceived vulnerability	PV1	0.657				
	PV2	0.682	0.559	0.786	0.789	Yes
	PV3	0.884				
Social media healthcare information continuance usage	SMHIC1	0.826				
	SMHIC2	0.629	0.593	0.803	0.805	Yes
	SMHIC3	0.819				
Social media healthcare information usage	SMHIU2	0.821				
	SMHIU3	0.819	0.673	0.892	0.891	Yes
	SMHIU4	0.780				
	SMHIU5	0.858				

Coefficients of determination and predictive relevance

	R-square		Q^2	Model	SRMR
SMHIC	0.737	SMHIC	0.546	Saturated Model	0.037

Abbreviations: AVE = average variance extracted, CR = Composite reliability: HTMT= heterotrait-monotrait ratio test

The Structural model

The structural model was assessed using structural equation modeling (SEM). The findings show that SMHIC was predicted by ESPSM (β=0.215; t=4.174; p<0.000), SMHIU (β=0.659; t=12.446; p<0.000), and PS (β=0.151; t=2.920; p<0.005). However, PV was not influential on SMHIC (β=-0.039; t=0.664; p>0.50), which did not support the hypothesis (H3). The findings of the analysis are presented in Table 3. The results show that the variance inflation factor (VIF) was greater than 1.508, which indicates there was no collinearity (Diamantopoulos and Siguaw, 2006). The R^2 for SMHIC was 0.737, which indicates a substantial value (Hair, Ringle and Sarstedt, 2011), while the Q^2 was 0.546, demonstrating the model has predictive relevance (Geisser, 1974). Meanwhile, the model fit was 0.037, which indicates that the data were suitable for the analysis. The results are presented in Figure 1 and Table 3.

The present study investigated the determinants that contribute to the persistent use of social media for health-related information among expectant mothers. The proposed model was based on social media health information usage, emotional support on social media, perceived vulnerability, perceived severity, and social media. According to the outcome of the study, continued usage of social media for healthcare information is impacted by the emotional support provided on social media. The findings revealed that the hypothesis (H1), emotional support on social media (ESPSM), has a significant effect on social media healthcare information continuance (SMHIC) usage, and it is therefore supported (Table 3).

Table 3. Hypothesis testing results.

Hypo-thesis	Path relations	Beta	Standard Error	t-value	p-values	Decision
H1	ESPSM -> SMHIC	0.215	0.051	4.174	0.000	Supported
H2	SMHIU -> SMHIC	0.659	0.053	12.446	0.000	Supported
H3	PV -> SMHIC	-0.039	0.059	0.664	0.507	Not Supported
H4	PS -> SMHIC	0.151	0.052	2.920	0.004	Supported

Abbreviations: ESPSM = emotional support on social media PV = perceived vulnerability, and PS = perceived severity, SMHIU = social media healthcare information usage, SMHIC = social media healthcare information continuance usage
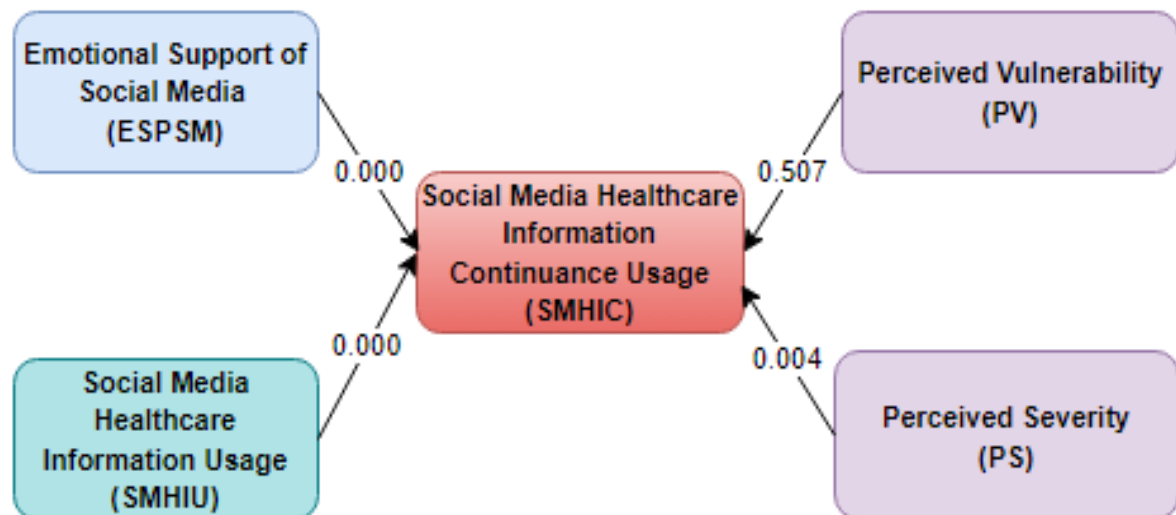

Figure 1. Results of Structural Model

The beneficial importance of this association is demonstrated by the effect that is presented in this study. This suggests that expectant women will continue to utilize digital healthcare platforms to receive emotional support from other users of these platforms. A significant conclusion that emerges from the investigation is that the majority of the women, 256 (44.1%), had conceived for the first time, which shows that this group is desperate for support. The fact that these women have chosen to be active on digital media demonstrates that the assistance they are receiving is beneficial to them; hence, they have decide to continue utilizing these platforms for the optimum impact. The results imply that emotional support on social media helps expectant mothers feel more at peace and happier, both of which have favorable effects on the unborn baby. The findings suggest that receiving emotional support confers a sense of significance and direction in the life of the expectant woman (Ngai *et al.*, 2021). This study gives a new insight into social media usage and emotional support. The current study used emotional support as an independent variable to assess social media health information continuance usage, which is different from the study by Shensa *et al.* (2016), which used emotional support as a dependent variable in another study. The area of focus in this study makes it unique from previous studies (Pourfallahi *et al.*, 2019; Wu *et al.*, 2019).

Furthermore, the research findings indicate that the utilization of healthcare information on social media has a favorable impact on the continuous use of social media for healthcare purposes. The results supported hypothesis two (H2), that healthcare information on social media will influence the continuance of the usage of such information (Table 3). The outcome clearly shows that expectant women who use digital platforms will persist in their usage. The findings indicate that the

importance of the information obtained from digital media platforms makes it very difficult for them to decline its usage. The findings of the current study presented new dimensions of previous studies (Deng, Liu and Hinz, 2015; Zahedul *et al.*, 2020; Gu *et al.*, 2021). These studies have used behavior as a dependent variable; however, the current studies have this variable as an independent variable, which examines continued use. The outcome of this research is unique in that it presents a different approach to the use of the UTAUT and expectation confirmation models.

Additionally, the effect of perceived vulnerability on the continued use of social media healthcare information was assessed. The results revealed that the perceived vulnerability of a woman's pregnancy has no significant effect on the person's decision to continue using social media for health information. This result did not support the proposed hypothesis three (H3). It is counterintuitive that perceived vulnerability does not result in sustained use. The aforementioned findings can be rationalized by the notion that expectant women initially resort to digital sources due to their susceptibility. Yet, they exercise discerning judgment in regard to the knowledge they obtain. Based on this notion, it is assumed expectant mothers will not persist in utilizing digital information. Furthermore, their decision to discontinue using digital health information may be because the knowledge they have already obtained will prompt them to seek advice from their healthcare providers. The results bring new findings, as most previous studies that employed perceived vulnerability assessed issues such as security protection intention (Hassandoust and Techatassanasoontorn, 2020) or a moderator for behavioral intention in health monitoring (Beh *et al.*, 2019). In as much as other studies in health adopted threat appraisal, its dependent variables were problem and emotion-focused coping (Marakhimov and Joo, 2017) but not continuance use of the health system.

Finally, the study examined the impact of the perceived severity of pregnancy on the continued usage of social media for healthcare information. The findings indicate that the level of danger is positively associated with the sustained utilization of digital media for health-related information. The result corroborated the hypothesis (H4) that the perceived severity factor will have a noteworthy effect on the sustained usage of digital media in healthcare (Table 3). The observation that perceived severity did impact expectant women's continuance usage of digital health information suggests that the absence of information-seeking behavior in a particular instance does not preclude its manifestation in a critical condition. The findings suggest that expectant women are unable to forego the acquisition of knowledge, regardless of the situation. Jacobs, Steijn, and Pampus (2019) reported that approximately 90% of the female respondents acknowledged the authenticity of the information obtained and relied on it to make decisions regarding their pregnancies. However, the focus of the study was not on the continued use of health information. Even studies (Beh *et al.*, 2019; Hassandoust and Techatassanasoontorn, 2020; Silver, Subramaniam and Stylianou, 2020) that used perceived severity in their study utilize it as a moderator or used it to assess different dependent variables. This study is novel as it combined constructs from social support, UTAUT, and PMT to examine expectant mothers' continued utilization of digital health information. It is also significantly distinct from previous works in continuance intention (Alsyouf, Ishak and Abdullah, 2018; Imlawi and Gregg, 2020; Yang and Jong, 2021; Tian and Wu, 2022).

Limitations

This study has a few limitations: for example, it only looks at expectant women in a few hospitals in the nation's capital; hence, the results cannot be extrapolated to the whole population. Nevertheless, the data collected for this study were deemed satisfactory in relation to the objectives and scope of the report. Moreover, the participants freely engaged in the study, and their voluntary involvement did not exert any detrimental influence on the outcomes. To compile a comprehensive report, subsequent research might

approach the topic from a longitudinal perspective. This continuing study has room for improvement, and future authors can advance this work by introducing trust and satisfaction to improve the study.

Conclusion

The utilization of this model demonstrates that expectant women have embraced the use of social media platforms for health-related purposes, and their continued usage is impacted by ESPSM, SMHIU, and PS. Since expectant mothers are using digital media for health-related purposes, health delivery facilities providing services to expectant mothers may consider creating social media groups and platforms aimed at supporting expectant women so that they will not gather false information that will endanger their lives and the unborn child. The findings of this study offer empirical and scientific insights that contribute to a better understanding of the behaviors exhibited by expectant women in relation to their continued use of social media for accessing healthcare information during pregnancy. Moreover, the findings will contribute to the existing body of knowledge in the field of digital health and foster a greater understanding, hence stimulating additional research in this emerging area.

Abbreviations

ESPSM: emotional support on social media; SMHIU: social media healthcare information usage, SMHIC: social media healthcare information continuance usage; PV: perceived vulnerability; PS: perceived severity; ANC: antenatal care (ANC), UTAUT: the unified theory of acceptance and use of technology model, PMT: protection motivation theory, HTMT: heterotrait-monotrait ratio test, AVE: average variance extracted, CV: convergent validity, DV: discriminant validity, VIF: variance inflation factor, SEM: structural equation modeling.

Declarations

Ethics Approval and Consent Participant

This research was approved by the Ghana Health Service Ethics Review Committee (GHSERC:001/01/22), and all five hospital authorities approved this study.

References

Alsyouf, A., Ishak, A.K. and Abdullah, O.Y. (2018) 'Understanding EHRs continuance intention to use from the perspectives of UTAUT: Practice environment moderating effect and top management support as predictor variables', *International Journal of Electronic Healthcare*, 10(1–2), pp. 24–59. Available at: https://doi.org/10.1504/IJEH.2018.092175.

Beh, P.K. *et al.* (2019) 'Using smartwatches for fitness and health monitoring: the UTAUT2 combined with threat appraisal as moderators', *Behaviour and Information Technology*, 0(0), pp. 1–18. Available at: https://doi.org/10.1080/0144929X.2019.1685597.

Broeke, M.V. *et al.* (2022) 'Sources of information used by women during pregnancy and the perceived quality', *BMC Pregnancy and Childbirth*, pp. 1–12. Available at: https://doi.org/10.1186/s12884-022-

04422-7.

Chiu, W., Cho, H. and Chi, C.G. (2020) 'Consumers' continuance intention to use fitness and health apps: an integration of the expectation–confirmation model and investment model', *Information Technology and People*, 34(3), pp. 978–998. Available at: https://doi.org/10.1108/ITP-09-2019-0463.

Damayanti, N.A. *et al.* (2022) 'the Internet As a Health Information in Decision Making of Pregnant Women', *Indonesian Journal of Health Administration*, 10(1), pp. 79–88. Available at: https://doi.org/10.20473/jaki.v10i1.2022.79-88.

Deng, Z., Liu, S. and Hinz, O. (2015) 'The health information seeking and usage behavior intention of Chinese consumers through mobile phones', *Information Technology and People*, 28(2), pp. 405–423. Available at: https://doi.org/10.1108/ITP-03-2014-0053.

Downe, S. *et al.* (2018) 'What matters to women during childbirth: A systematic qualitative review', *PLoS ONE*, 13(4), pp. 1–17. Available at: https://doi.org/10.1371/journal.pone.0194906.

Geisser, S. (1974) 'A predictive approach to the random effect model', *Biometrika*, 61(1), pp. 101–107. Available at: https://doi.org/https://doi.org/10.1093/biomet/61.1.101.

Gu, D. *et al.* (2021) 'Assessing the Adoption of e-Health Technology in a Developing Country: An Extension of the UTAUT Model', *SAGE Open*, 11(3), pp. 1–16. Available at: https://doi.org/10.1177/21582440211027565.

Hair, J.F. *et al.* (2013) 'Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance', *Long Range Planning*, 46(1–2), pp. 1–12. Available at: https://doi.org/10.1016/j.lrp.2013.01.001.

Hair, J.F. *et al.* (2017) 'A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks', *Sage*, p. 165.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) 'PLS-SEM: Indeed a silver bullet', *Journal of Marketing Theory and Practice*, 19(2), pp. 139–152. Available at: https://doi.org/10.2753/MTP1069-6679190202.

Hamzehei, R. *et al.* (2018) 'Online Health Information Seeking Behavior among Iranian Pregnant Women : A Case Study', *Library Philosophy and Practice (e-journal)*, pp. 1–17.

Harpel, T. (2018) 'Pregnant women sharing pregnancy-related information on Facebook: Web-based survey study', *Journal of Medical Internet Research*, 20(3), pp. 1–16. Available at: https://doi.org/10.2196/jmir.7753.

Hassandoust, F. and Techatassanasoontorn, A.A. (2020) *Understanding users' information security awareness and intentions: A full nomology of protection motivation theory, Cyber Influence and Cognitive Threats*. Elsevier Inc. Available at: https://doi.org/10.1016/B978-0-12-819204-7.00007-5.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015) 'A new criterion for assessing discriminant validity in variance-based structural equation modeling', *Journal of the Academy of Marketing Science*, 43(1), pp. 115–135. Available at: https://doi.org/10.1007/s11747-014-0403-8.

Imlawi, J. and Gregg, D. (2020) 'Understanding the satisfaction and continuance intention of knowledge contribution by health professionals in online health communities', *Informatics for Health and Social Care*, 45(2), pp. 151–167. Available at: https://doi.org/10.1080/17538157.2019.1625053.

Jacobs, E.J.A., Steijn, M.E. Van and Pampus, M.G. Van (2019) 'Sexual & Reproductive Healthcare Internet usage of women attempting

Original Research

Indonesian Journal of Health Administration
(Jurnal Administrasi Kesehatan Indonesia)
p-ISSN 2303-3592, e-ISSN 2540-9301
10.20473/jaki.v11i2.2023.231-241

pregnancy and pregnant women in the Netherlands', *Sexual & Reproductive Healthcare*, 21(April), pp. 9–14. Available at: https://doi.org/10.1016/j.srhc.2019.04.005.

Jaks, R. *et al.* (2019) 'Parental digital health information seeking behavior in Switzerland : a cross-sectional study', *BMC Public Health*, pp. 1–11.

Jun, J., Park, H. and Cho, I. (2019) 'Study on initial adoption of advanced driver assistance system: integrated model of PMT and UTAUT 2', *Total Quality Management and Business Excellence*, 30(sup1), pp. S83–S97. Available at: https://doi.org/10.1080/14783363.2019.1665820.

Lin, X., Wang, X. and Hajli, N. (2019) 'Building E-Commerce Satisfaction and Boosting Sales : The Role of Social Commerce Trust and Its Antecedents Antecedents', *International Journal of Electronic Commerce*, 23(3), pp. 328–363. Available at: https://doi.org/10.1080/10864415.2019.1619907.

Marakhimov, A. and Joo, J. (2017) 'Consumer adaptation and infusion of wearable devices for healthcare', *Computers in Human Behavior*, 76, pp. 135–148. Available at: https://doi.org/10.1016/j.chb.2017.07.016.

Ngai, S.S. *et al.* (2021) 'Mediating Effects of Emotional Support Reception and Provision on the Relationship between Group Interaction and Psychological Well-Being : A Study of Young Patients', *International Journal of Environmental Research and Public Health* [Preprint]. Available at: https://doi.org/https://doi.org/10.3390/ijerph182212110.

Ngozi, S., Anasi, I. and Allison, G.O. (2018) 'Sociodemographic Determinants of Information Sources Availability and Use Among Pregnant Women in Ilisan-Remo, Ogun State, Nigeria', *Journal of Hospital Librarianship*, 18(1), pp. 47–63. Available at:

https://doi.org/10.1080/15323269.2018.1400833.

Ofori, P.P. (2023a) [Forthcoming] 'Social Media in Pregnancy Care: Exploring Adoption Factors and Digital Healthcare Information Utilization among Expectant Mothers in Ghana', *Ethiopian Journal of Health Sciences*.

Ofori, P.P., Antwi, E.A. and Owusu-Ansah, K.A. (2021) 'The mediating effects of satisfaction and attitude on consumers' intent toward adoption of social media healthcare information', *Journal of Health and Social Sciences*, 6(3), pp. 391–402. Available at: https://doi.org/10.19204/2021/thmd5.

Ofori, P.P. and Oduro-Asante, A. (2022) 'Using Extraversion to Investigate Social Media Purchase Adoption', *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 8(4), pp. 91–104. Available at: https://doi.org/10.32628/cseit22849.

Ofori, P.P. and Wang, W. (2022) 'Emerging technologies adoption in healthcare: A SOHI model', *Information Development*, pp. 1–19. Available at: https://doi.org/10.1177/02666669221113766.

Özkan, S., Şengül, Ş. and Sözbir, Y. (2021) 'Use of Mobile Applications by Pregnant Women and Levels of Pregnancy Distress During the COVID - 19 (Coronavirus) Pandemic', *Maternal and Child Health Journal*, 25(7), pp. 1057–1068. Available at: https://doi.org/10.1007/s10995-021-03162-y.

Pourfallahi, M. *et al.* (2019) 'The effect of informational-emotional support program on illness perceptions and emotional coping of cancer patients undergoing chemotherapy', *Supportive Care in Cancer*, 28(2), pp. 485–495. Available at: https://doi.org/10.1007/s00520-019-04842-w.

Puspitasari, I. and Firdauzy, A. (2019) 'Characterizing consumer behavior in leveraging social media for e-patient

and health-related activities', *International Journal of Environmental Research and Public Health*, 16(18), pp. 3–5. Available at: https://doi.org/10.3390/ijerph161833 48.

Shatta, D.N. *et al.* (2020) 'The Influence of Relative Advantage Towards e-Procurement Adoption Model in Developing Countries: Tanzania Context', *European Scientific Journal ESJ,* 16(28), pp. 130–149. Available at: https://doi.org/10.19044/esj.2020.v1 6n28p130.

Shensa, A. *et al.* (2016) 'Social Media Use and Perceived Emotional Support Among US Young Adults', *Journal of Community Health*, 41(3), pp. 541–549. Available at: https://doi.org/10.1007/s10900-015-0128-8.

Silver, R.A., Subramaniam, C. and Stylianou, A. (2020) 'The impact of portal satisfaction on portal use and health-seeking behavior: Structural equation analysis', *Journal of Medical Internet Research*, 22(3), pp. 1–13. Available at: https://doi.org/10.2196/16260.

Smith, M. *et al.* (2020) 'The relationship between digital media use during pregnancy, maternal psychological wellbeing, and maternal-fetal attachment', *PLoS ONE*, 15(12 December), pp. 1–15. Available at: https://doi.org/10.1371/journal.pone. 0243898.

Tian, X.F. and Wu, R.Z. (2022) 'Determinants of the Mobile Health Continuance Intention of Elders with Chronic Diseases: An Integrated Framework of ECM-ISC and UTAUT', *International Journal of Environmental Research and Public Health*, 19(16). Available at: https://doi.org/10.3390/ijerph191699 80.

Venkatesh, V. *et al.* (2003) 'User acceptance of information technology: Toward a unified view', *MIS Quarterly: Management Information Systems*, 27(3), pp. 425–478. Available at: https://doi.org/10.2307/30036540.

Wu, J. *et al.* (2019) 'Impact of Emotional Support, Informational Support, and Norms of Reciprocity on Trust Toward the Medical Aesthetic Community: The Moderating Effect of Core Self-Evaluations', *Interactive Journal of Medical Research*, 8(1), pp. 1–12. Available at: https://doi.org/10.2196/11750.

Yang, J. and Jong, D. (2021) 'Understanding Continuance Intention Determinants to Adopt Online Health Care Community : An Empirical Study of Food Safety', *International Journal of Environmental Research and Public Health*, 18(6514). Available at: https://doi.org/https://doi.org/10.3390 / ijerph18126514.

Zahedul, M. *et al.* (2020) 'Factors influencing the adoption of mHealth services in a developing country: A patient-centric study', *International Journal of Information Management*, 50(April 2019), pp. 128–143. Available at: https://doi.org/10.1016/j.ijinfomgt.201 9.04.016.