



Mediating Role of Flow Experience Between System Quality and Users' Intention to Reuse Dating Applications in Malaysia

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Abstract:

Introduction: This empirical study highlights the association between system quality and users' intention to reuse dating applications in Malaysia, mediated by the flow experience. The stimulus–organism–response (S-O-R) model is used to conceptualise system quality as the stimulus, flow experience as the organism, and intention to reuse as the behavioural response.

Methodology: The data were gathered using an online survey from 386 Malaysian dating application users who had used at least one dating application in the last 12 months. Partial least squares structural equation modelling (PLS-SEM) was employed for data analysis.

Results: The results show that the quality of the system significantly positively influences intention to reuse and flow experience. The flow experience is also found to have a significant positive impact on intention to reuse. Furthermore, flow experience is found to be a significant mediator between system quality and intention to reuse.

Conclusion: The findings indicate that Malaysian users will likely sustain their purchase of dating applications if they believe that the platform is reliable, user-friendly, responsive, secure, and well-integrated. Most of all, dating software that's technically sound will promote re-use because it will offer a fun experience and immerse the user. This research extends the S-O-R theory to the Malaysian context of dating apps and provides a new psychological mechanism: the flow experience, between system quality and the intentions to reuse online dating and digital platform services.

Keywords: System quality, flow experience, intention to reuse, dating applications, Malaysia, S-O-R model, SmartPLS.

1. INTRODUCTION

Mobile internet dating apps now play an integral role in the modern social life, changing how people start relationships that

are romantic, social, and interpersonal. Unlike traditional dating, which typically takes place in a person's social or geographic circles, online dating platforms provide opportunities for individuals to connect with potential partners

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outside of their immediate social and geo-graphic spheres (Bandinelli & Gandini, 2022; Castro & Barrada, 2020; Sumter *et al.*, 2017). Tinder, Bumble, Coffee Meets Bagel, OkCupid, Tantan and MalaysianCupid are examples of platforms that have incorporated profile-browsing, algorithmic matching, mobile communication, location-based interaction, and gamified interface elements to facilitate novel forms of relationship-seeking behaviours (Chan, 2021; Timmermans & De Caluwé, 2017).

The dating applications are used in Malaysia in a multicultural and socially diverse environment. Ethnicity, religion, family expectations, language, education, lifestyle, privacy and urbanisation can influence the formation of relationships. With the increasing number of people dating via their smartphones and a growing digital lifestyle, dating applications are now giving Malaysian users more and more opportunities to find friendship, a friend, a casual encounter or a serious romance, all conveniently and privately. Online dating sites, however, have other privacy and security related concerns, such as fake profiles, scams, misrepresentation, safety, harassment, and trust (Bonilla-Zorita *et al.*, 2021; Farnden *et al.*, 2015; Gibbs *et al.*, 2011). Therefore, users' engagement relies highly on the technical and experiential quality of the platform, which is a concern here as well.

One of the challenges of dating application providers is user retention. It's not enough to attract users to install an application. There is a need for frequent interaction and engagement in dating apps. After a brief amount of time, if users opt to leave the application, it sacrifices its social value and commercial viability. Hence, it is important to understand reuse intention both for academic research and platform management.

Continuance behaviour in the digital platforms is one of the most critical factors impacted by system quality. In information systems research, system quality is linked to the technical quality of a system, such as reliability, usability, responsiveness, accessibility, flexibility, security, and ease of navigation (Dangiso *et al.*, 2023; DeLone & McLean, 2003; Petter *et al.*, 2008). With mobile applications, users have higher expectations that their applications load quickly, operate without any errors, deliver valuable information, are easy to use, and offer seamless services (Islam, 2012; Zhou *et al.*, 2010). System quality influences the way users navigate through profiles, swipe, match, chat, get notifications, and control their personal information in a dating app.

The association between system quality and reuse intentions, however, is not necessarily direct. There are many psychological mechanisms by which technique quality translates into continued use, some of which are very significant and explained by flow experience. Flow is the state of deep concentration, enjoyment, immersion, control, curiosity and absorption in an activity (Csikszentmihalyi, 1990; Hoffman & Novak, 2009). Flow has been found to have an impact on satisfaction, loyalty, continuance intention, and repeated usage behaviour (Hsu & Lu, 2004; Koufaris, 2002; Ozkan *et al.*, 2024). Dating apps are appropriate to review flow due to users can get lost in looking at other profiles, swiping, accepting matches, and communicating with others via instant messaging.

This study is based on the stimulus–organism–response model. The S-O-R model offers an explanation of how external stimuli can affect users' internal psychological reactions and thus their external behavioural reactions (Mehrabian & Russell, 1974). Previous research has used S-O-R to explore the relationship between system characteristics, website ambiance, mobile app design, service quality, and technological cues to user emotions, experiences, and behaviour intentions (Chen & VG, 2023; Eroglu *et al.*, 2003; Jacoby, 2002; Kühn & Petzer, 2018; Vieira, 2013). In this study, System Quality is the stimulus, the flow experience is the organism and intention to reuse is the behavioural response.

While there had been some prior research on motivations to use dating apps, psychosocial consequences, privacy concerns, and problematic uses, fewer studies investigated the information systems and flow perspective of reuse intention (Bonilla-Zorita *et al.*, 2021; Castro & Barrada, 2020; Sumter *et al.*, 2017; Thomas *et al.*, 2025). In addition, the relationship in the dating application context in Malaysia has not been explored by limited studies. This study aims to fill this gap by conducting an empirical test between system quality, flow, and intention to reuse the dating application among Malaysian users.

The research goals are: RO1: To investigate the relationship between system quality and intention to reuse dating application among Malaysian users. RO2: To analyse the relationship between System Quality with flow experience of Malaysian dating application users. RO3: To discuss the influence of flow experience on intention to reuse dating apps in Malaysian. RO4: To study the mediation effect of flow in between system quality and intention to reuse dating applications in Malaysia.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Stimulus–Organism–Response Model

S-O-R model is the theory that shows the relationship between external stimuli in the environment and the internal psychological state and behavior of the individual (Mehrabian & Russell, 1974). In the original environmental psychology model, stimuli are external cues that impact the organism, whereas the organism is in a state of either affect or cognition that results in a behavioural response. The S-O-R model has been employed to study the effects of website features, mobile application quality, online store atmosphere, service quality and technological cues on users' emotions, engagement, satisfaction and behavioural intentions in digital platform research (Eroglu *et al.*, 2003; Jacoby, 2002; Kühn & Petzer, 2018; Vieira, 2013).

In this study, the S-O-R model is applied in the context of dating websites in Malaysia. System quality is the stimulus as it represents technical and functional features of the platform. Flow experience is the organism itself, since it is a state that involves users in their internal psychological processes of being immersed, enjoying, being curious, concentrating, and being absorbed (Kong *et al.*, 2026). Because it emulates users' intention to use the dating application again, the response is considered as intention to reuse (Liew *et al.*, 2023).

The S-O-R view is appropriate as dating app reuse relies not only on the technical operating but additionally also the psychological experience created throughout the use of the platform. While a dating application can work, it will not be sustainable if it is not fun and engaging. On the other hand, when the quality of the system is such that the interaction is smooth, safe and enjoyable, the user could be persuaded to form a stronger intention to use the application again.

2.2. System Quality and Intention to Reuse

User satisfaction, system use, continuance intention and reuse behaviour have been widely acknowledged as being greatly affected by system quality. The DeLone and McLean Information system success model states that the quality of system is one of the key determinants of information system success as it is related to the technical efficiency and functional performance of a digital platform (DeLone & McLean, 2003). Previous research on e-learning, mobile learning, e-commerce and e-tourism, and mobile services has shown that system quality has an impact on user satisfaction, perceived usefulness, loyalty, and continuance intention (Alkhawaja *et al.*, 2022; Bhattacharjee, 2001; Islam, 2012; Masri *et al.*, 2020; Ramayah *et al.*, 2010).

In the context of dating apps, the quality of the system can be especially significant since user interaction relies on timely and continuous functionality of the platform (Kong *et al.*, 2026). Users want a seamless profile browsing experience, consistent messaging, profile matching that is accurate, load times that are quick, secure logins, and reliable notifications. Users might move to other dating apps if they crash often, take too long to send messages, offer less user-friendly ways to navigate or do not keep their privacy (Liew *et al.*, 2023). Previous mobile platform research indicates that the mobile platform should be reliable, responsive, easy to use and technically stable to facilitate other platform reusability factors (Cheng, 2014; Hsu & Lu, 2004; Zhou *et al.*, 2010).

The quality of the system is perhaps more critical in Malaysia as dating app users share personal data, engage in interpersonal communication and in a private manner. If they feel unsafe, technologically unstable, or that it cannot protect their information, users may be hesitant to use the same platform again. Thus, it is expected that system quality will have a positive influence on users' intention to reuse dating applications in Malaysia.

H1: System quality has a positive relationship with users' intention to reuse dating applications in Malaysia.

2.3. System Quality and Flow Experience

The quality of the system could also affect users' experience while navigating through the system. In flow, users feel totally involved in an activity and enjoy it, concentrate on it, feel in control of it and time is distorted (Csikszentmihalyi, 1990; Hoffman & Novak, 2009; Xie *et al.*, 2024). In digital environments, flow can be more readily experienced when the interface is easy to navigate, responsive, clear, stable, and not interrupted by technical issues (Bartholomeyczik *et al.*, 2023; Koufaris, 2002; Novak *et al.*, 2000; Zhou *et al.*, 2010).

Dating sites are communication-driven websites. Users are always browsing, swiping, matching and chatting. Slow or unreliable system may disrupt concentration and enjoyment for users. But, if the system runs smoothly, the users can concentrate on the dating experience rather than technical issues. Previous research on mobile services and online systems has shown that system usability, responsiveness, and design quality can positively affect user's immersion and flow (Cheng, 2014; Xie *et al.*, 2024; Ozkara *et al.*, 2017).

In Malaysia, system quality could help decrease uncertainty and enhance comfort of using dating apps. A stable and secure platform enables users to concentrate on exploring profiles, communicating with potential matches and take pleasure in the procedure of interaction. Hence, the quality of systems would be expected to have a positive effect on flow experience with Malaysian dating application users.

H2: System quality has a positive relationship with flow experience among dating application users in Malaysia.

2.4. Flow Experience and Intention to Reuse

Flow is one of the factors that contribute to users' continuance behavior. Enjoyment, absorption, and concentration lead to the likelihood of engaging in the activity again because the activity is intrinsically rewarding (Csikszentmihalyi, 1990; Novak *et al.*, 2000; Yang, 2024). In digital environments, flow has been shown to be related to loyalty, satisfaction, continuance intention, and reuse intention (Wu & Xie, 2024; Koufaris, 2002; Ozkara *et al.*, 2017; Zhou *et al.*, 2010).

Flow can happen in dating apps when users are lost in the experience of viewing profiles, swiping, getting matches, and chatting. The lack of certainty on matching, the interest created by the profiles and the fun of communicating can possibly improve individuals' need to stay using the application. The existing research indicates that online dating is not only a functional system, but also an emotional and experiential space that can shape self-presentation, interpersonal exploration and psychosocial results (Bandinelli & Gandini, 2022; Bonilla-Zorita *et al.*, 2021; Castro & Barrada, 2020).

Flow experience can become crucial in Malaysia as the degree of comfort and expectation of users during using dating apps may differ. A fun and engaging user experience might help to alleviate hesitation and keep people using the product. Hence, it is anticipated that flow experience will have a positive impact on intention to reuse dating applications in Malaysia.

H3: Flow experience has a positive relationship with users' intention to reuse dating applications in Malaysia.

2.5. Mediating Role of Flow Experience

According to the S-O-R model, external stimuli have an impact on the behavioural response via the internal psychological state (Mehrabian & Russell, 1974). Following this reasoning, the system quality could have a direct effect on reuse intention, and indirect effect via flow experience. A good dating app can have a direct impact on reuse intention due to the users' perception of reliability and convenience of the system. Meanwhile, system quality can provide a fun and immersive experience of flow, enhancing the reuse intention further.

The mediating effect of flow on the relationship between system features and behavioural outcomes has been supported by previous research with digital platforms (Hsu & Lu, 2004; Koufaris, 2002; Ozkara *et al.*, 2017; Zhou *et al.*, 2010). For dating applications, flow can be the same internal experiential mechanism that makes technical quality into continued use. Hence, if Malaysian users feel that a dating application is reliable, secure, easy to use and well-integrated, they can feel more enjoyment and immersion, which will further increase their intention to use the application again.

H4: Flow experience mediates the relationship between system quality and users' intention to reuse dating applications in Malaysia.

3. METHODOLOGY

3.1. Research Design

A quantitative research design was adopted in this study, and primary data were collected using a cross-sectional survey questionnaire. The quantitative approach was appropriate due to the study's aim of testing the relationships between system quality, flow experience, and the intention to reuse. The data were collected at a single time; hence the use of the cross-sectional design. Partial least squares structural equation modelling was employed to evaluate the measurement model, structural model and mediation effect. The study aimed to predict the result and included the evaluation of direct and indirect effects, so the most appropriate modeling framework was PLS-SEM (Hair *et al.*, 2022).

3.2. Population and Sample

The study targeted adult dating application users in Malaysia. Two screening criteria were applied to ensure that respondents were relevant to the study. First, respondents were required to be at least 18 years old because major dating applications such as Tinder and Bumble restrict their services to users aged 18 years and above. No maximum age limit was imposed, as the study aimed to capture the experiences of adult dating application users across different age groups. Second, respondents were required to have used a dating application within the previous 12 months to ensure that they had sufficiently recent experience to evaluate the system quality, flow experience, and reuse intention. The dating applications used by respondents included Tinder, Bumble, Coffee Meets Bagel, OkCupid, Tantan, Malaysian Cupid, and other similar platforms.

420 online questionnaires were sent out. The number of invalid or incomplete responses was eliminated and 386 valid responses were retained for final analysis. This made the valid response 91.9%. The sample size of 100 was deemed sufficient for the PLS-SEM analysis for this study as it surpassed the minimum sample size requirement for a model with three main latent constructs, which is 100 (Hair *et al.*, 2022).

3.3. Sampling Technique and Data Collection

Purposive and convenience sampling techniques were employed in this study. Purposive sampling was used to ensure that only individuals who met the predefined eligibility criteria

were included, namely adults aged 18 years and above who were residing in Malaysia and had used a dating application within the previous 12 months. Screening questions were included at the beginning of the questionnaire, and respondents who did not meet these criteria were excluded from further participation. Convenience sampling was subsequently used because no complete sampling frame of dating application users in Malaysia was available. The survey link was distributed through social media platforms, online communities, university networks, and personal contacts where potential dating application users could be reached. Although this approach cannot guarantee that the sample is fully representative of all dating application users in Malaysia, the use of clear screening criteria and eligibility checks increased confidence that the final respondents belonged to the intended target population.

Respondents were instructed with an informed consent statement prior to answering the questionnaire. The statement was to inform the purpose of the study, voluntariness, anonymity, confidentiality and withdrawal possibilities. No personal identifiable data was gathered. Because using the dating application may be sensitive in Malaysia, anonymity was stressed to ensure that the responses were honest.

3.4. Measurement of Constructs

All constructs were measured using items adapted from previously validated scales and modified to fit the dating application context. Responses were recorded on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

System quality was measured using six items adapted from (DeLone & McLean, 2003; Islam, 2012; and Alkhawaja *et al.*, 2022). The items assessed key dimensions of system quality, including ease of use, reliability, responsiveness, accessibility, security, and functional integration.

Flow experience was measured using five items adapted from (Csikszentmihalyi, 1990; Koufaris, 2002; Novak *et al.*, 2000; and Leung, 2020). These items captured users' enjoyment, absorption, concentration, curiosity, and time distortion while using dating applications.

Intention to reuse was measured using four items adapted from (Bhattacharjee, 2001; Hsu & Lu, 2004; and Masri *et al.*, 2020). The items assessed respondents' intentions to continue using dating applications, use them routinely in the future, prefer their continued use, and recommend their use to others.

3.5. Data Analysis

The data were analysed using SPSS and Smart_PLS. Demographic profiles and descriptive statistics were analyzed using SPSS. Smart_PLS was used to assess the measurement model and structural model. The measurement model was evaluated in terms of the factor loading, Cronbach's alpha, composite reliability, average variance extracted and heterotrait-monotrait ratio. The path coefficients, t-values, p values, R-square, f-square and bootstrapping were used to evaluate the structural model. The mediation effect was tested by performing a bootstrapping with 5000 resamples.

4. RESULTS

4.1. Respondent Profile

A total of 386 valid responses were used in the final analysis. Table 1 presents the demographic profile of the respondents.

4.2. Descriptive Statistics

The descriptive statistics for the key constructs are presented in Table 2. The mean values of the constructs were all above the midpoint of 3.00, signifying the overall positive perceptions of system quality, flow experience, and intention to reuse.

The results indicate that respondents generally perceived Malaysian dating applications as moderately high in system quality. Respondents also reported a positive level of flow experience and intention to reuse.

4.3. Measurement Model Assessment

Indicator loadings, Cronbach's alpha, composite reliability, and average variance extracted were used as indicators to evaluate the measurement model. The results are shown in Table 3.

The loadings of all the items were greater than 0.70, which was the recommended threshold for acceptability of indicator reliability. The Cronbach's alpha values were in the range 0.884–0.903, which is greater than the recommended minimum of 0.70. The internal consistency of the composite reliability was between 0.912–0.932. The value of AVE was ranged from 0.634 to 0.774, which was above the threshold of 0.50. Thus, convergent validity was confirmed.

4.4. Discriminant Validity

Discriminant validity was assessed using the heterotrait–monotrait ratio. Table 4 presents the HTMT results.

All HTMT values were below the recommended threshold of 0.85, indicating that discriminant validity was established.

4.5. Structural Model Assessment

Path coefficient, *t* value, *p* value, *R* square and *f* square were used for assessing the structural model. The significance of the relationships was tested with bootstrapping with 5,000 resamples. The model results of the structure are shown in Table 5.

Table 1. Demographic profile of respondents.

Demographic Variable	Category	Frequency	Percentage
Gender	Male	208	53.9%
	Female	178	46.1%
Age	18–24 years	124	32.1%
	25–34 years	176	45.6%
	35–44 years	62	16.1%
	45 years and above	24	6.2%
Education Level	Diploma/Foundation	76	19.7%
	Bachelor's degree	198	51.3%
	Master's degree	82	21.2%
	PhD/Doctoral degree	30	7.8%
Main Dating App Used	Tinder	116	30.1%
	Bumble	82	21.2%
	Coffee Meets Bagel	56	14.5%
	OkCupid	48	12.4%
	Tantan	42	10.9%
	MalaysianCupid/Others	42	10.9%
Daily Usage	Less than 1 hour	168	43.5%
	1–2 hours	146	37.8%
	2–3 hours	52	13.5%
	More than 3 hours	20	5.2%

The findings indicate that the quality of the system is positively and significantly related to intention to reuse ($\beta = 0.284$, $t = 5.416$, $p < 0.001$), which supports H1. Moreover, flow experience is positively associated with system quality ($\beta = 0.637$, $t = 16.284$, $p < 0.001$), which supports H2. The results show that flow experience has a significant positive effect on intention to reuse ($\beta = 0.512$, $t = 10.973$, $p < 0.001$), which supports H3.

The R-square value for flow experience was 0.406, which means that 40.6% of flow experience variability could be explained by the quality of the system. The combined contribution of system quality and flow experience to intention to reuse was 0.548, suggesting that they together accounted for 54.8% of the variance in intention to reuse.

4.6. Mediation Analysis

The mediation effect of flow experience was assessed using bootstrapping. Table 6 presents the mediation results.

The indirect effect of system quality on intention to reuse through flow experience was significant ($\beta = 0.326$, $t = 8.947$, $p < 0.001$), supporting H4. The findings indicate partial mediation, as the direct effect of system quality on intention to

reuse remained significant after flow experience was introduced into the model. This result suggests that flow experience explains part of the mechanism through which system quality influences reuse intention, while system quality also retains an independent direct effect on users' intention to reuse dating applications.

Partial mediation is theoretically meaningful in the present study because users may respond directly to technical and functional aspects of a dating application, such as reliability, accessibility, responsiveness, and ease of use, while these system characteristics may simultaneously create a more engaging and immersive flow experience that further strengthens reuse intention. Therefore, flow experience does not replace the role of system quality as an antecedent; rather, it represents an additional psychological mechanism through which system quality affects users' behavioural intentions. This interpretation is consistent with contemporary mediation literature, which recognises that a significant direct effect and a significant indirect effect can coexist within the same model (Zhao *et al.*, 2010; Nitzl *et al.*, 2016). In such circumstances, the mediator remains theoretically relevant because it explains an additional pathway linking the independent and dependent variables.

Table 2. Descriptive statistics.

Construct	Mean	Standard Deviation
System Quality	3.86	0.68
Flow Experience	3.72	0.71
Intention to Reuse	3.79	0.74

Table 3. Measurement model results.

Construct	Item	Loading	Cronbach's Alpha	Composite Reliability	AVE
System Quality	SQ1	0.812	0.884	0.912	0.634
	SQ2	0.798			
	SQ3	0.821			
	SQ4	0.776			
	SQ5	0.803			
	SQ6	0.767			
Flow Experience	FE1	0.846	0.891	0.920	0.697
	FE2	0.832			
	FE3	0.819			
	FE4	0.858			
	FE5	0.820			
Intention to Reuse	IR1	0.872	0.903	0.932	0.774
	IR2	0.887			
	IR3	0.891			
	IR4	0.870			

Table 4. HTMT results.

Construct	System Quality	Flow Experience	Intention to Reuse
System Quality	-	-	-
Flow Experience	0.642	-	-
Intention to Reuse	0.611	0.695	-

Table 5. Structural model results.

Hypothesis	Relationship	Beta	t-value	p-value	f-square	Decision
H1	System Quality → Intention to Reuse	0.284	5.416	<0.001	0.102	Supported
H2	System Quality → Flow Experience	0.637	16.284	<0.001	0.681	Supported
H3	Flow Experience → Intention to Reuse	0.512	10.973	<0.001	0.331	Supported

Table 6. Mediation analysis.

Hypothesis	Indirect Relationship	Beta	t-value	p-value	Decision
H4	System Quality → Flow Experience → Intention to Reuse	0.326	8.947	<0.001	Supported

Table 7. Summary of hypotheses testing.

Hypothesis	Statement	Result
H1	System quality positively influences intention to reuse.	Supported
H2	System quality positively influences flow experience.	Supported
H3	Flow experience positively influences intention to reuse.	Supported
H4	Flow experience mediates the relationship between system quality and intention to reuse.	Supported

5. DISCUSSION

The results validated all four hypotheses, and empirical evidence was obtained that system quality and flow experience are key factors affecting users' intentions to reuse dating applications in Malaysia. The first result was that there was a significant positive correlation between system quality and intention to reuse. This indicates that Malaysian users tend to stay on dating sites longer when they believe that the site is reliable, convenient, safe, easily accessible and easy to use. This is in line with the information systems success model where one of the factors associated with system use and user satisfaction is system quality (DeLone & McLean, 2003; Petter *et al.*, 2008).

In the case of dating apps, system quality becomes a crucial aspect as users anticipate swift and uninterrupted interactions. Smooth swiping, stable messaging, quick profile loading, accurate notifications, and seamless integration are integral to dating apps. When these features are functioning properly, users are less frustrated and more likely to stay on the platform. System quality may be even more critical in Malaysia due to

privacy and safety issues. If a user feels that the dating application is safe and that his or her data is secure, he or she will be more likely to use it again.

Second, the findings show that the quality of the system is highly positively related to flow experience. This result reveals that technically effective dating apps have a higher chance of inducing pleasant feelings, focus, immersion, and absorption among Malaysian users. A smooth and user-friendly platform allows users to concentrate on their activities, such as browsing profiles, matching and communication without worrying about system issues. This is consistent with previous studies that found that system quality has a positive impact on flow experience in digital environments (Koufaris, 2002; Novak *et al.*, 2000; Zhou *et al.*, 2010).

Thirdly, it was discovered that flow experience significantly positively correlated with intention to reuse. That is to say, Malaysian users will be more likely to continue using dating applications if they feel joy, curiosity, and immersion when using them. This is in line with the flow theory (Csikszentmihalyi, 1990; Hoffman & Novak, 2009) that people

tend to do things repeatedly when they are intrinsically enjoyable and engaging. For online dating, it may be a good thing when users feel engulfed in the process of surfing and swiping and receiving matches and messages from prospective daters.

Fourth, the mediation analysis revealed that flow experience significantly mediated between system quality and intention to reuse. This result is said to confirm the S-O-R model. The internal flow experience that users have while using the system is a stimulus that affects system quality, which in turn affects the behavioral response of the users in the form of the intention to re-use the system. In the partial mediation result, the direct influence of system quality on reuse intention is confirmed, as is the indirect effect of system quality on reuse intention through the mediator variable of the design quality. In other words, Malaysian users are still using dating applications not only because of the system's performance but also because of the enjoyable and immersive experience the system offers to the users.

THEORETICAL IMPLICATIONS

This study makes a number of theoretical contributions. First, it is an extension to the S-O-R model to the context of the Malaysian dating application. The study compares the quality of the system to the experience of the organism and the intent to reuse to the response, allowing for a structured explanation of dating application continuance behaviour. This helps to contribute to the literature on digital platforms by demonstrating the effect of platform characteristics on user behavior from a psychological experience.

Secondly, the study can complement information systems success literature, as it validated the significance of system quality for mobile dating application. The quality of systems has been investigated in many areas of e-learning, e-commerce, and mobile service, but in this study, the relevance of system quality in the context of dating applications is illustrated. The results indicate that the technical quality is an important contributor to user retention.

Third, the study extends the field of flow theory by showing that flow experience plays an essential role in the dating application reuse phenomenon. Dating applications aren't simply a useful service. They are engaging and experiential platforms. The results indicate that the flow experience has a strong influence on explaining users' retention.

Fourth, by studying dating application reuse in the Malaysian context, the current study adds to the existing research of the digital platforms in Malaysia. The results indicate that technical quality and immersive experience influences users' intentions to reuse in Malaysia. This sets the groundwork for future study in online dating, online intimacy, and platform continuance in Malaysia.

PRACTICAL IMPLICATIONS

The findings provide several practical implications for dating application developers and platform managers in

Malaysia. First of all, platform providers should keep the quality of the system in mind. Users will use applications that they can trust, respond quickly, are secure, and are easy to use. The loading speed, messaging stability, profile browsing, search and app navigation need to be improved.

Second, improve privacy and security on platform provider. Dating applications features personal information, so there might be concerns around data security, fake profiles, scams, and unwanted contact. Profile verification, privacy controls, reporting, and secure messaging capabilities can help enhance users' confidence and promote re-use.

Third, designers need to build in features that can help with positive flow experience. Enjoyment and immersion can be boosted through smooth swiping, personalized recommendations, relevant notifications, minimalistic profile design, and quick communication options. But there are some behaviors that are within the designers' control to discourage and these behaviors are harmful or addictive. Flow should be for interaction and not for busyness.

Last but not least, dating apps ought to be culturally mindful in Malaysia. Users should be able to indicate preferences in regard to intention to relationships, language, lifestyle, and compatibility. This can enhance the quality of the matches played and develop more meaningful interactions.

LIMITATIONS AND FUTURE RESEARCH

There are some limitations of the present study. The study design is cross sectional and the study suffers from limitations in causal interpretation. Longitudinal designs could be used in future studies to investigate changes in user perceptions and reuse intention over time. Second, self-reports were used, which could introduce social desirability bias. The use of dating applications may be a sensitive issue in Malaysia, with some respondents providing an answer that is lower than reality.

Third, this study emphasized only system quality and flow experience. Additional model variables such as trust, privacy concern, perceived safety, satisfaction, social influence, perceived usefulness, or relationship success can be added to the model in future research. Fourthly, this study focused on Malaysian dating app users as a whole. Future research can explore comparisons among groups of users by gender, ethnicity, religion, age, or the dating application that is being used.

CONCLUSION

The present empirical study investigates the relationship among the system quality, flow experience, and intention to reuse dating applications for Malaysian users. This study was based on the S-O-R model, and the results showed that system quality has a positive relationship with flow experience and intention to reuse. In addition, flow experience is a significant mediator between system quality and intention to reuse, and it has positive impact on intention to reuse.

The results indicate that Malaysian users tend to stay on dating apps if they feel the app is reliable, safe, easy to use,

responsive and well-integrated. More significantly, it is system quality, partly because it provides an enjoyable and immersive flow experience, that will encourage re-use. This work adds to the body of knowledge on digital platform and online dating by highlighting technical and psychological aspects to explain dating application continuance.

ABBREVIATION

S-O-R = Stimulus–Organism–Response

AUTHORS' CONTRIBUTIONS

All authors have contributed substantially to the conception and design of the study. N.A.B.A. has contributed to methodology and study design. M.H.A. has conducted data collection and investigation. S.D.M.C. has performed data analysis and interpretation. R.M. has contributed to the literature review and data curation. R.R. has contributed to manuscript preparation, review, and editing; and provided supervision, critical review, and overall coordination of the study. All authors critically reviewed and approved the final manuscript and agreed to be accountable for all aspects of the work.

ETHICAL APPROVAL & INFORMED CONSENT

Informed consent was obtained from all respondents before participation in the survey. The respondents were informed that participation was voluntary, responses would remain anonymous and confidential, and they could withdraw from the study at any time without penalty.

AVAILABILITY OF DATA AND MATERIALS

The data will be made available on reasonable request by contacting the corresponding author [S.D.M.C.].

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this article.

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DECLARATION OF AI

The authors declare that generative artificial intelligence tools may be used only for language editing and grammatical improvement. The use of AI does not influence the study design, data analysis, interpretation, results, or conclusions. The authors remain fully responsible for the content of the manuscript.

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