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Understanding Guests' Revisit Intention towards Smart Hotels: The Moderating Role of Technology Readiness across Generational Cohorts

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ABSTRACT

This conceptual paper proposes a framework that integrates guests' attitudes and technology readiness to explain revisit intention towards smart hotels across generational cohorts. Drawing on the Theory of Planned Behaviour and the Technology Readiness Index, the framework proposes that guests' attitudes towards smart hotel technologies influence revisit intention, while technology readiness moderates this relationship. The framework recognises that guests with similarly favourable attitudes towards smart hotel technologies may differ in their intention to revisit because of variations in their psychological readiness to use technology-enabled services. Generational cohort is included as an exploratory segmentation variable rather than as a proxy for technological capability or technology readiness. The paper advances two theoretical propositions concerning the attitude–revisit intention relationship and the moderating role of technology readiness, as well as a research question concerning potential differences across generational cohorts. A potential empirical validation approach involving purposive screening, generational quotas, and quantitative analysis is outlined. The framework contributes to smart hospitality research by integrating guests' attitudes, technology readiness, and revisit intention while identifying the conditions under which the attitude–intention relationship may vary.

1. INTRODUCTION

The hospitality industry has undergone rapid digital transformation driven by advancements in artificial intelligence (AI), the Internet of Things (IoT), robotics, automation systems, and data-driven personalisation technologies. These innovations have led to the emergence of smart hotels that enhance service efficiency, operational performance, and personalised guest experiences (Kim et al., 2021; Pizam et al., 2024; Sthapit et al., 2024). Malaysia is relevant for the study of this subject as this country's tourism and hospitality industry is set in a digitalised world and has a significant domestic and global clientele.

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Digital connectivity and domestic tourism are important topics of relevance when considering technology adoption in the hospitality industry. But if the hotel industry is going to leverage digital technologies to transform the way the industry experiences, then it is important to note that not all guests have the same psychological buy-in. The technology readiness can thus be used as a single “microscope” to assess how individual guests might react differently to technology-facilitated experiences at hotels in Malaysia.

However, technological implementation alone does not guarantee customer loyalty. Attitudes toward the smart hotel technologies can affect customers' revisit intention, which means that more positive attitudes can lead to higher revisit intentions. Nevertheless, this relationship may vary depending on individuals' technology readiness (TR), which reflects their psychological predisposition to embrace new technologies, including optimism, innovativeness, discomfort, and insecurity (Parasuraman, 2000; Parasuraman & Colby, 2015). Moreover, generational cohorts can be used as a segmentation view that can help determine if the relationship between technology-related constructs varies by cohort. Individual differences in digital literacy, previous technological exposure, life stage and experience should also influence technology-related responses, however, and thus generational membership should not be assumed as a proxy for technological capability or technology readiness. Therefore, the proposed framework examines how attitude and technology readiness may relate to revisit intention while treating generational cohort as an exploratory segmentation variable in the Malaysian smart hotel context.

The success of smart hotels depends not only on the implementation of advanced technological systems but also on customer acceptance and their intention to revisit. Customer revisit intention is a key determinant of long-term business sustainability and competitiveness in the hospitality industry (Han et al., 2019; Kim et al., 2021). The likelihood of customers returning to the same hotel is influenced by how individuals from different age groups perceive and evaluate smart technologies. Technology readiness (TR), introduced by Parasuraman (2000), serves as a useful framework for understanding individuals' propensity to adopt new technologies. TR comprises four dimensions: optimism and innovativeness (enablers), and discomfort and insecurity (inhibitors) (Parasuraman & Colby, 2015). As such, TR plays a crucial role in determining the extent to which customer attitudes toward smart hotel technologies translate into actual behavioural outcomes.

Existing smart hotel studies generally assume that favourable customer attitudes naturally translate into revisit intention. However, empirical findings remain inconsistent because Positive evaluations of smart hotel technologies do not necessarily translate into revisit intention, as guests may differ in how their attitudes relate to their future behavioural intentions but provide limited explanation of why positive attitudes fail to become actual revisit behaviour among certain guests. This conceptual study proposes Technology Readiness as a potential moderator of the attitude–revisit intention relationship, which may help explain variations in revisit intention among guests with similarly favourable attitudes, subject to future empirical validation.

The question remains not just whether customer attitude is related to revisit intention, but when a positive attitude is more likely to lead to revisit intention. In addition to proposing technology readiness as potential boundary condition, this conceptual paper also suggests that the degree of psychological readiness to use a technology-intensive service may vary between individuals, even if they have an equally positive attitude toward smart hotel technologies. Moderating technology readiness enables the framework to incorporate the strength of the attitude–intention relationship instead of only considering readiness as another direct antecedent.

While generational cohorts might differ in their exposure to and familiarity with technology, this should not be assumed to imply a difference in technology readiness (Parasuraman, 2000; Parasuraman & Colby, 2015). The technology readiness and intention to interact with smart hotel technologies has been studied previously (Kim et al., 2021), and there are also a few studies that focus on the difference in the acceptance of smart hotel technologies between generations (Guo et al., 2025). To further conceptualise the relationship between customer attitude and revisit intention, however, it is important to examine some of the other factors in play, such as technology readiness, especially when viewing the relationship across generational

cohorts. Thus, the purpose of the study is to provide a conceptual framework which will treat Technology Readiness (TR) as a moderating effect between customer attitude and revisit intention while taking into account Baby Boomers, Generation X, Generation Y (also known as the Millennial Generation) and Generation Z in the Malaysian smart hotel industry. The study is a valuable addition to smart hospitality literature by including the customer attitude, technology readiness and revisit intention in a unified conceptual framework and by proposing generational cohort as a basis for exploring potential differences in the future via multi-group analysis (MGA).

2. LITERATURE REVIEW

2.1 Customer Attitude toward Smart Hotel Technologies

Customer attitude is a customer's general opinion of the use of smart hotel technologies (Ajzen, 1991; Davis, 1989). The proposed conceptual model places “Customer Attitude” as an independent variable, which is related to guests' attitudes towards the technology-enhanced hotel services, and not to the technology features or benefits from these services. The constructs of perceived usefulness and perceived ease of use are among the most important constructs in the Technology Acceptance Model (TAM), which is used to understand technology acceptance based on users' perceptions of how a technology relates to their attitudes and intentions to use it (Davis, 1989). Other technologies like mobile check-in, automated services, digital room controls and contactless systems can also be seen as efficient, convenient, personal and safe by guests in smart hotel environments (Han et al., 2021; Kim et al., 2021; Chang et al., 2023). These factors are not part of the “construct” of Customer Attitude, but rather are factors that may have been antecedents of it.

The present conceptual paper does not aim to test TAM, although it offers a theoretical framework of the technology acceptance phenomenon. Rather, it adopts the wider technology acceptance view to study how the attitudes of visitors to smart hotel technology relate to their willingness to return to a hotel. Return Intention is a guest's desire or probability to come back to a hotel in the future. According to the Theory of Planned Behaviour (TPB), attitude towards a behaviour is a relevant predictor of behavioural intention, so there is a theoretical basis to suggest there is a relationship between Customer Attitude and Revisit Intention (Ajzen, 1991). If guests who have positive experiences with technology-based services are more likely to return to a smart hotel, they expect that to be a positive and convenient experience as well. But positive attitudes do not always result in revisit intentions, since users may have a positive attitude towards the technology, but assess other aspects of a hotel's service. Therefore, this conceptual paper suggests that there was a positive relationship between Customer Attitude towards smart hotel technologies and Revisit Intention. This correlation forms the basis for the first theoretical proposition, which is then explored as a possible moderation factor in the following exploration of Technology Readiness as a possible moderation factor.

2.2 Revisit Intention in Smart Hotels

Revisit intention refers to a customer's likelihood of returning to the same hotel and is widely recognized as a key indicator of customer loyalty in the hospitality industry. In the context of smart hotels, revisit intention reflects customers' post-consumption evaluation of their experience with technology-enabled services. Empirical evidence shows that customer attitude is a strong predictor of revisit intention (Han et al., 2019; Kim et al., 2021). Positive attitudes toward smart hotel technologies increase the likelihood that customers will return, as they associate the hotel with efficiency, convenience, and enhanced service quality. Compared to initial visit intention, revisit intention provides a more reliable measure of long-term loyalty, as it is based on actual experience rather than expectations. However, the relationship between attitude and revisit intention is not always direct or uniform across individuals. While some customers readily translate positive attitudes into revisit behaviour, others may hesitate despite favourable evaluations. This suggests that additional factors, particularly individual psychological differences, may influence the strength of this relationship. Revisit intention is selected because smart hotel technologies are already implemented in practice. Unlike adoption intention, which reflects pre-usage expectations, revisit intention

captures post-experience behavioural commitment and therefore provides a stronger indicator of customer loyalty.

2.3 Technology Readiness as a Moderating Variable (The “Readiness Catalyst”)

Parasuraman (2000) has proposed technology readiness as the tendency of users to accept and apply new technologies to achieve personal and professional objectives. This proclivity is captured by the Technology Readiness Index (TRI) in two technology enablers (optimism and innovativeness) and two technology inhibitors (discomfort and insecurity) (Parasuraman, 2000). The revised TRI 2.0 adds further elaboration to the measurements of these dimensions (Parasuraman & Colby, 2015). In the context of smart hotels, TR serves as a theoretical framework for understanding differences among individual guests in their psychological preparedness to interact with technology-based service such as mobile check-in, automated service systems, digital room control and contactless facilities. Importantly, TR is separate from Customer Attitude, as the latter reflects the individual's favorable or unfavorable rating of smart hotel technologies with the former representing the individual's general attitude towards smart technologies.

TR is proposed as a potential moderator in the proposed conceptual model between Customer Attitude and Revisit Intention. The basis of this proposition is the assumption that a positive attitude towards the smart hotel technology does not necessarily translate into revisit intention for all visitors. Higher scores on the technology disposition items might lead to greater disposition to act on positive assessments and the likelihood of revisiting a hotel with technology. In contrast, guests who feel more uneasy or uneasy about technology might be less likely to convert the positive perceptions into revisit intention. These possibilities suggest that the strength of the attitude–revisit intention relationship may vary according to guests' levels of technology readiness. The Technology Readiness Index (TRI) is used to track this theoretical argument by categorising technology dispositions into enabling/disabling categories and does not claim to indicate the moderation effect of TR on the attitude–revisit intention relationship. The proposed moderating effect would be a theoretical extension that needs to be explored in empirical studies in the future rather than a fact.

The conceptualization of TR as a moderator differs from the conceptualisation of TR as a direct predictor of Revisit Intention. A direct-effect would look to see if there would be a difference between guests' attitudes and revisit intentions if technology readiness levels were high or low. The moderating perspective, however, investigates whether the relationship between Customer Attitude and Revisit Intention gets stronger or weaker depending on the level of TR. The focus is therefore not just on the relationship between technology readiness and revisit intention but on whether technology readiness accounts for any variation in extent to which favourable attitudes are related to revisit intention. This is at the heart of the suggested framework which aims to account for situations in which Customer Attitude might have stronger or weaker links with Revisit Intention in smart hotels.

Moreover, a generational cohort is used as a grouping variable to examine potential differential patterns of proposed relationships in multi-group analyses instead of as a technology readiness group. The experiences of generational cohorts will vary with technology but should not be equated to individual TR levels. In this regard, the suggested framework takes into account the possible moderating effect of TR on the three generations of Baby Boomers, Generation X, Millennials and Generation Z in the smart hotel industry in Malaysia. This method connects the conceptualisation of concept of technology acceptance and revisit intention and presents a model that includes Customer Attitude, TR and generational comparison, which needs to be validated empirically.

2.4 Generational Cohorts as a Segmentation Perspective

Generational cohorts have been studied in the context of technology adoption, attitudes, technology usage behaviour, and other contexts. But that should not be equated with the fact that the younger people are more technologically capable and that the older people less prepared. The experiences and behaviours around technology may be influenced by a range of factors such as prior experience of digital technologies, digital

literacy, individual experience, life-stage factors and socioeconomic factors. Thus, generational membership and/or chronological age might not be enough to reveal individual differences in TR.

As generational grouping variables, Baby Boomers, Generation X, Millennials and Generation Z are included in the proposed conceptual framework to investigate potential differences in the relationships among Customer Attitude, TR and Revisit Intention. No definition of technological ability or TR is given, and no particular level of TR is assumed for a specific generation. On the contrary, the framework acknowledges that people in the same generational cohort can be different in terms of readiness to accept and utilise smart hotel technologies. This separation allows TR to stay at the individual-level, and generational cohort gives grounds for exploring the possibility of differences between groups in the proposed relationships.

However, caution is advised when making inferences about generational differences. Since the characteristics and experiences of the cohorts may overlap with age-related ones, it is important to note that observed differences between generations in a cross-sectional study do not necessarily reflect only differences between cohorts. These restrictions underscore the need to separate generational comparisons from accounts of the technological readiness of individuals. This conceptual paper therefore treats generational cohort as an exploratory grouping variable for future multi-group analysis (MGA) to explore whether there is any difference in the proposed relationships without assuming that one generation is more technologically ready than the other.

2.5 Underpinning Theories

This study is grounded in the Technology Readiness Index (TRI) (Parasuraman, 2000; Parasuraman & Colby, 2015), which explains individuals' predisposition toward adopting new technologies. TRI is suitable for this study as smart hotel environments require active user interaction, making psychological readiness a key factor. Prior studies show that individuals with higher optimism and innovativeness are more likely to form positive evaluations and behavioural intentions, while discomfort and insecurity hinder technology usage (Kim et al., 2020; Han et al., 2021). In addition, the Theory of Planned Behaviour (TPB) (Ajzen, 1991) explains the relationship between attitude and behavioural intention. TPB suggests that positive attitudes lead to stronger intentions, and this relationship has been widely supported in smart hospitality research (Han et al., 2019; Chang et al., 2023). The integration of TRI and TPB is appropriate as TPB explains how attitudes influence revisit intention, while TRI explains why this relationship differs across individuals. Prior research indicates that technology readiness can strengthen or weaken the attitude–behaviour link (Kim et al., 2020; Han et al., 2021). Therefore, TRI is positioned as a moderating variable to provide a more comprehensive explanation of customer behaviour in smart hotels.

A difference between the Technology Readiness construct and the Technology Readiness Index should also be noted. Technology readiness is the psychological tendency of a person to accept and adopt new technology; whereas the Technology Readiness Index is a series of dimensions that quantifies technology readiness such as optimism, innovativeness, discomfort and insecurity. In this conceptualization, technology readiness is not just a direct predictor, but also a moderator as it is part of the theoretical interest of whether technology readiness actually alters the strength of the relationship between customer attitude and revisit intention.

Attitude is a component of the evaluative component of TPB, which is involved in the behavioural intention. But having a positive assessment doesn't mean the same kind of intent will come through for everyone. Technology readiness offers a complementary explanation: It involves an individual level state that could affect how well positive evaluations are converted into intentions in technology-intensive services settings. As such, TPB helps to explain the proposed attitude–intention pathway and TRI help to explain the potential for variation in the strength of the pathway.

2.6 Proposition Development

According to the conceptual framework, the relationship between customer attitude toward the smart hotel technologies and revisit intention can be assumed. Positive evaluations of the technology intensified hotel experiences can help to increase the intention to return, since favourable attitudes are an important evaluative aspect of behavioural intention. The association can, however, be different based on the individual technology readiness.

Thus, technology readiness is suggested as a moderation variable as well as a direct predictor. Psychological preparedness to interact with technology-intensive services may lead to revisiting intentions at various levels among guests with similar positive attitudes. This proposition does not state that attitude–revisit intention is necessarily stronger when readiness is greater, but rather that whether or not the strength of the relationship between attitude and revisit intention changes as a result of the changes in readiness.

This includes the inclusion of an exploratory grouping variable known as generational cohort. The framework is not technology readiness level (TRL) dependent, meaning, it does not assume that one cohort is more technology ready than the other. Rather, future empirical studies could explore the possible differences in proposed relationships between the Baby Boomers, Generation X, Millennials, and Generation Z.

Thus, the following hypotheses are proposed:

P1: Customer attitude toward smart hotel technologies is conceptually associated with revisit intention.

P2: Technology readiness is proposed to moderate the relationship between customer attitude toward smart hotel technologies and revisit intention.

RQ1: How may the proposed relationships between customer attitude, technology readiness and revisit intention vary across generational cohorts?

2.7 Proposed Theoretical Framework

The study establishes a modified behavioural framework which combines Customer Attitude, Technology Readiness, and Generational Differences to predict smart hotel customers' return visits. The framework uses behavioural intention theory (Ajzen, 1991) together with the Technology Readiness Index (Parasuraman, 2000; Parasuraman & Colby, 2015) to establish psychological predisposition as a determining factor for customer loyalty development. The proposed model uses Customer Attitude to predict Revisit Intention. Attitude reflects guests' overall evaluative judgment of their experience with smart hotel technologies, encompassing perceptions of convenience, efficiency, personalization, and safety. According to behavioural theory positive evaluations lead customers to visit again. The relationship between these two factors shows different effects according to different people.

The moderating construct of Technology Readiness operates to determine how strongly Customer Attitude and Revisit Intention relate to each other. TR functions as a behavioural amplifier instead of serving as a direct predictor of behavioural intention. Guests with high optimism and innovativeness who experience low discomfort and insecurity will develop strong intentions to revisit when they use smart technologies. The positive attitude of guests will not lead to behavioural commitment when they show lower readiness through technological anxiety or distrust. Technology-intensive service environments use this moderation perspective to show how loyalty develops through different processes.

Generational cohort is not used as an indicator of technology readiness but rather as an exploratory grouping variable. The framework does not, therefore, make an a priori prediction about the technology readiness of the younger or older cohorts. Future empirical studies should consider cross-generational differences (Baby Boomers, Gen X, Millennials, and Gen Z) in the proposed attitude-revisit intention relationship, and the moderating effect of Technology Readiness, while taking into account individual attributes like prior technology exposure and digital literacy and life-stage characteristics. This way, the

system can address the aspect of generational difference without making an a priori assumption of technological capacity.

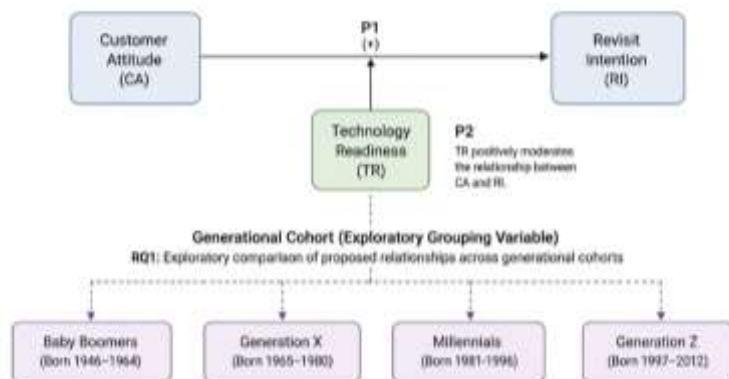


Figure 1. Proposed theoretical framework of customer attitude, technology readiness, and revisit intention across generational cohorts

The framework identifies Customer Attitude as the independent variable and Revisit Intention as the dependent variable. Technology Readiness is introduced as a moderator that is expected to strengthen the connection between a positive attitude and the intent to return. The entire model is nested within a Multi-Group Analysis (MGA) structure to observe how these paths fluctuate across the four generational cohorts (Baby Boomers, Gen X, Millennials, and Gen Z).

3. CONCEPTUAL APPROACH AND FUTURE EMPIRICAL VALIDATION

3.1 Conceptual Approach

This paper follows a conceptual strategy to establish an integrated framework to explain the proposed relationship between Customer Attitude and Revisit Intention of smart hotels, based on the possible moderation of Technology Readiness (TR) and the possible exploratory classification of the generational cohort. The framework is based on Ajzen (1991) Theory of Planned Behaviour (TPB) and Parasuraman (2000) Technology Readiness Index (TRI), Parasuraman and Colby (2015). TPB offers a theoretical framework for understanding the relationship between attitudes and behavioural intentions, and TRI provides a view of individual differences in willingness to adopt and utilise technology.

The conceptual framework suggests that there is a positive relationship between Customer Attitude towards smart hotel technologies and Revisit Intention, and this relationship can be different based on the different TR levels of the customers. Generational cohort is included as a variable to allow for examination of the possibility of differences in the proposed relationships between generational cohorts—Baby Boomers, Generation X, Millennials, and Generation Z. These relationships are expressed in the form of propositions but not as findings.

No primary data are collected or analysed for the present conceptual paper. Therefore, the following subsections present the research design, sampling strategy, measurement procedures and analytical techniques proposed to be used for future empirical validation. They are not meant to be procedures that were carried out in the present study.

3.2 Future Empirical Validation

A quantitative research approach with a cross-sectional survey design could be used to validate the results of this statement in the future. This will enable researchers to obtain consistent answers at a designated time from the potential respondents (eligible guests at the hotel), and analyse the proposed relationships between

Customer Attitude, TR, and Revisit Intentions. A quantitative approach would also allow for an evaluation of the proposed moderation effect and exploratory comparisons between generational cohorts.

The data would be analysed on an individual hotel guest basis. The target population would be adults who have used the smart hotel technologies in a hotel they have stayed in Malaysia. A structured, self-administered questionnaire, administered via an online survey platform, could be used to gather data. There will be questions in the questionnaire to check eligibility for the participant, demographic questions, and questions to assess the three main constructs.

For an initial investigation of the proposed associations and interaction effects a cross-sectional design would be appropriate. It would not, however, create causal relationships nor be able to separate out age, period, and cohort effects on its own. Thus, it is important to take these limitations into consideration when interpreting results of a future cross-sectional study.

3.3 Target Population and Eligibility Criteria

Adult guests staying at a hotel in Malaysia who have personally utilised at least one of the technology-based services while in the hotel would be the proposed target population. The operational definition for the purpose of this study is for someone to use one or more of the technologies of a smart hotel during a visit to a hotel.

Mobile check-in or check-out, automatic check-in kiosks, mobile room keys, digital concierge, voice-controlled room facilities, smart room controls, contactless payment systems and service robots are among the possible technologies. The respondents will be asked to check the technology or technology they personally used and to confirm that it happened during their Malaysian hotel stay. Even though the technology was seen or knowledge was gained about the technology, but hasn't been actually used, it would not meet the proposed screening criterion.

The participants should be 18 or older at the time of participation, be informed consent, and have technology experience. Those who did not reside in a hotel in Malaysia and those who did not use any of the technologies listed, would be ineligible. These criteria would help ensure that the answers would represent the real-life experience of guests and not their general perception of the smart hotel technologies.

3.4 Sampling Strategy and Sample-Size Determination

It is proposed to use a non-probability sampling strategy that is a combination of generating purposive eligibility screening and generational quotas. The respondents would be identified through purposive screening and quota sampling would ensure representation of the four generational groups. This method would be suitable for a comparison of the relationships proposed for exploration, but would not give each member of the target population a known probability of being selected.

The generational boundaries proposed are consistent with those used by Dimock (2019): Baby Boomers (1946–1964), Generation X (1965–1980), Millennials (1981–1996), and Generation Z (1997 onwards). Only those aged 18 or over at the time of data collection would be eligible. Thus, the "eligible" Generation Z span would only apply to adults who are in the limited age range. The boundaries presented here are suggested study boundaries and do not represent the actual boundaries.

If equal quotas are used, then a total of 96 respondents per generational group can be considered for initial planning with a sample of 384 respondents. This total, however, and the allocation to each of the groups would have to be determined a priori by a statistical power analysis. The moderation effect is expected, there are several predictors, the desired statistical power is considered, the significance level is set, and the planned multi-group comparisons are taken into account. The minimum sample size for the structural model might be different from the minimum sample size needed for meaningful comparisons between groups.

As a result, the number of samples in the proposed sampling should not be calculated by a “rule of thumb” calculation. The power analysis and the minimum group sample size for the proposed design would give a more solid support for the ability of the design to sufficiently test the moderation effect and the exploratory generational comparison. The number of samples and groups is still a proposal for empirical investigation in the future as this is a conceptual paper.

3.5 Proposed Measurement Instrument

A structured questionnaire that was adapted from the available technology readiness, attitude and behavioural intention measures could be used in future empirical research. Adaptation would consist of picking the items that were appropriate to the smart hotel context, modifying words in the instrument as needed without altering the meaning of each construct and checking the instrument for clarity and context appropriateness. If the measures being used are selected, the responses to the questions on the questionnaire should be consistent (e.g., in the case of the selected measures, the responses to the questions should be on a 7-point Likert scale from strongly disagree to strongly agree).

3.5.1 Customer Attitude

Customer Attitude would be the respondents' overall positive or negative assessment of the use of smart hotel technologies. When developing measurement items, focus should be on the evaluative component of attitude and not its perceived usefulness, perceived ease of use, convenience, or other potential determinants as parts of the attitude construct. The theoretical construct of attitude would be based on Ajzen (1991) and the items would be derived from existing measures and modified to fit the smart hotel environment.

3.5.2 Technology Readiness

The Technology Readiness Index 2.0 (TRI 2.0), built by Parasuraman and Colby (2015) will be used to operationalise TR. The instrument is based on four aspects of optimism, innovativeness, discomfort and insecurity, which indicate the level of readiness of the technology. Optimism and innovativeness are enabling dispositions, while discomforts and insecurities are inhibiting. The proposed instrument should maintain these distinctions, rather than consider TR as a single-dimensional variable. The study in the future should explicitly describe the dimension(s) of TR and the theoretical and statistical support for the choice of dimension(s).

3.5.3 Revisit Intention

Measuring Revisit Intention would be done by using the established items of behavioural-intention adapted for measuring the willingness or the intention of guests to return to a smart technology hotel. Selected items need to be specific to future revisitation and not technology adoption or intention to use one specific digital service.

The adapted questionnaire needs to be checked by the experts before the main survey in terms of content relevance, construct alignment, and wording. A pilot study might then assess item clarity, questionnaire flow and preliminary reliability. Construct reliability and validity testing of measurement-model procedures would be performed in the next empirical study in order to measure the constructs used. These may involve internal consistency, convergent and discriminant validity evaluations, as appropriate. Transparency in making adaptations and decisions about measurement should be recorded.

Application of the framework is dependent on empirical evidence. If future research reveals any significant differences between guest groups in terms of technology readiness or preferences for technology-related elements of the hotel experience, one would expect that hotel managers can tailor the technological support and communication to match those identified by the guest groups. The approaches should be personalised and not age-based.

3.6 Proposed Data Analysis

However, if the framework is looked at empirically, the analysis that follows the framework would be done in a number of stages.

Data screening and descriptive analysis would look at missing responses, incomplete questionnaires, eligibility, potential response quality issues, and the demographic characteristics of the respondents. Descriptive statistics would summarise sample and the distribution of respondents among the four generational groups.

Second, the assessment of the measurement instruments would be conducted for reliability and validity. The procedures would vary depending on the nature of the constructs (reflective versus formative) and the nature of TR (as a multidimensional or higher-order construct). As such, the specification for measurement should be determined prior to performing the analysis.

Thirdly, the proposed relationship between Customer Attitude and Revisit Intention will be tested using a structural model. The analysis would assess the estimated relationship and its uncertainty and the corresponding explanatory and predictive measures based on the chosen PLS-SEM procedures.

Finally, moderation analysis would be conducted to determine if TR influenced the relationship between Customer Attitude and Revisit Intention. This means that it is important to test the relationship between Customer Attitude and TR, rather than simply the relationship between the two constructs and Revisit Intention.

Fifth, a multi-group analysis (MGA) may be used to determine if the proposed structural relationships vary with the Baby Boomers, Generation X, Millennials and Generation Z. Prior to comparing relationships in the structures, it is necessary to determine that the measurement instruments are working comparably within the groups. If available, the Measurement Invariance of Composite Models (MICOM) procedure can be used to assess the measurement invariance of composite models in PLS-SEM. When using the Group comparisons, they should be interpreted with caution, especially in the cases of small group sizes, or when observed differences are attributed to age, life stage, digital literacy or previous technology experience.

The proposed PLS-SEM and MGA procedures could be implemented using the software package SmartPLS, while the data screening and descriptive analysis could be done using the SPSS or other statistical software. The analytical tools and procedures proposed are in the conceptual stage – no statistical results will be reported in the present conceptual paper.

3.7 Ethical Considerations

Primary data collection and human-participant recruitment are not involved in the present paper. Thus, the suggested survey process is offered, not as practice for this conceptual article, but for future research.

Prior to the empirical study proposed, researchers are advised to seek approval from the ethical committee for that research and any necessary institutional permissions. The participation shall be voluntary and the respondents shall be informed about the aim of the study, the proposed degree of participation, how their data will be treated and their rights to refrain from participation according to the approved protocol.

Futuristic research will also need to develop a suitable informed consent process, confidentiality, secure data storage and limited access to research data. Only the information necessary for the study should be collected and be managed according to the institutional requirements and obligations of data-protection in Malaysia. When doing generational comparisons, do not stereotype the participants or assume that technology readiness is defined by age or cohort. Approval and recruitment of participants would only occur after all the relevant approvals.

4. THEORETICAL PROPOSITIONS AND DISCUSSION

4.1 Theoretical Propositions

Drawing on the Theory of Planned Behaviour (Ajzen, 1991), this conceptual paper proposes that favourable attitudes towards smart hotel technologies are positively associated with revisit intention. However, this relationship may vary according to guests' Technology Readiness (TR). Based on the Technology Readiness Index (Parasuraman, 2000; Parasuraman & Colby, 2015), guests may differ in how their attitudes translate into intentions to revisit.

Proposition 1: Customer Attitude is positively associated with Revisit Intention.

Proposition 2: Technology Readiness moderates the relationship between Customer Attitude and Revisit Intention.

4.2 Theoretical and Practical Implications

This framework extends smart hospitality research by integrating Customer Attitude, TR, and Revisit Intention while considering generational cohorts as exploratory grouping variables. It provides a theoretical basis for examining whether the attitude–revisit intention relationship differs across guests with varying levels of TR. For hotel managers, the framework highlights the potential importance of understanding individual guests' technology-related needs rather than making assumptions based on age. These implications remain subject to future empirical validation.

4.3 Future Research

Future research could test the proposed propositions using a quantitative survey and PLS-SEM, followed by multi-group analysis to explore potential differences across Baby Boomers, Generation X, Millennials, and Generation Z. Further studies could also examine other factors, such as trust, perceived risk, and prior technology experience that may help explain revisit intention.

5. CONCLUSION

This conceptual paper suggests a conceptual model of understanding revisit intention of guests toward smart hotels based on the integration of the customer attitude and technology readiness from different generations. The distinction of technology readiness as a potential moderating condition allows the discussion to go beyond the question of its relationship with favourable attitudes to that of whether the attitude–intention relationship can be moderated by technology readiness. Generational cohort is used as an exploratory segmentation variable, not as an assumption of technological ability. The framework thus offers an opportunity to consider differences between generational cohorts, while acknowledging that there are within-group differences and that cross-sectional cohort comparisons may be constrained. Empirical studies are needed in the future to validate the proposed propositions as well as to explore the moderating effect of technology readiness and the differences in the meaningfulness between generations.

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7. CONFLICT OF INTEREST STATEMENT

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

8. AUTHORS' CONTRIBUTIONS

Anas Azhar: conceptualisation, literature review, development of the conceptual framework, and manuscript preparation. **Dian Aszyanti Atirah Mohd. Asri:** supervision, conceptual guidance, and critical revision of the manuscript. **Nur Hidayah Che 'Ahmat:** supervision, methodological guidance, and critical revision of the manuscript. All authors read and approved the final version of the manuscript.

9. DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES

The authors used ChatGPT (OpenAI) to assist with language editing and improving the organisation of the manuscript. All AI-assisted revisions were reviewed and approved by the authors, who remain responsible for the content, accuracy, and integrity of the manuscript.

10. DATA AVAILABILITY/SUPPLEMENTARY MATERIALS

Not applicable. This conceptual paper does not involve the collection or analysis of primary research data.

11. ETHICS STATEMENT

Not applicable.

12. REFERENCES

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