# Intention to Visit Tourist Destinations: The Effect of Mobile Tourism Recommender System on Visit Intention

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## Abstract

*This study aims to determine whether the use of the Mobile Tourism Recommender System (MTRS) application can affect the intention to visit tourist destinations and the level of influence of the factors that can influence it. The model in this study involves the Task-Technology Fit model and aspects, technological features, social motivation, visit intention, and use intention to identify visit intention. The method used to collect data in this research is a web-based online survey using Google Forms distributed through social media. The target respondents were individuals who had used the mobile tourism recommender system. Data from 213 valid respondents were processed and analyzed using Structural Equation Modeling with the help of the SmartPLS application. The conclusion is that the use of the MTRS application can affect the intention to visit tourist destinations.*

**Keywords:** mobile tourism recommender system, task-technology fit, technological features, social motivation, use intention, visit intention

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## Introduction

By 2025, smartphone users in Indonesia are estimated to reach 89% of the Indonesian population (Yosepha 2020). The number is very high compared to smartphone users in 2015, only 28.6% (Yosepha 2020). The increase occurs due to the changes in the behavior of Indonesian people. There are several differences in information dissemination media due to technology amid society (Ratnaya 2011). Information can be conveniently received or disseminated by one individual to another. However, it also brings adverse effects, such as people can receive information overload.

Information overload occurs when the number of inputs entered the system exceeds the capacity to digest information (Eppler and Mengis 2004). As a result, an individual can have difficulty making the right choice. A study explores how consumption decisions' quality depends on the information load. The study concluded that the higher the information received by a consumer, the lower the consumer's ability to choose the best (Jacoby et al. 1973).

Furthermore, humans as social beings need time off from the daily grind. They often carry out tourism activities by visiting various tourist destinations, attractions, cultural events, and others. Tourism is one of the drivers of the Indonesian economy, where Indonesian tourism was ranked 20th in the overall world tourism industry in 2017 (The Jakarta Post 2018). In addition, every year, the tourism industry in Indonesia continues to increase, ranking 9th in tourist growth in the world, ranking 3rd in Asia and ranking first in Southeast Asia (The Jakarta Post 2018). It shows that the tourism industry in Indonesia is highly relevant to the lives of Indonesian people.

Due to technological advances, a technology that can assist human social activities in making personalized choices has emerged; it is called a recommender system or recommendation system (Resnick and Varian 1997). The technology will provide information on recommendations for tourist destinations, places to visit, attractions to see, events to attend, and accommodation options in the tourism sector (Loh et al. 2003). Based on these facts, recommendation technology in the tourism sector is a profitable business and an exciting and relevant topic for further research.

The mobile tourism recommender system or MTRS is an application that can recommend a choice of tourist destinations to its users. Recommendations are personalized according to the user, providing the best choice according to the user's taste. Most studies only discuss MTRS in technical side such as extending the technology travel recommender systems by utilizing collaborative filtering techniques for deriving improved recommendations (Kenteris et al. 2010), providing review and insights on the MTRS's services (Gavalas et al. 2014) and discussing major techniques in mobile recommender systems and illustrate its computational model (Ricci 2010). No research has been conducted regarding the effect of MTRS on users' behavior, precisely intention to visit tourist destinations. As mentioned before, the demand for tourism in Indonesia increases from time to time, so the factors that influence people to visit tourist destinations are an exciting topic to be explored more. In this study, the authors will examine effect of MTRS on visit intention. Based on previous research, it is known that several aspects can determine the continuance intention or the intention to reuse an application or system (Wu and Chen 2017). Some of them are Task-Technology Fit (TTF), technological features, and social motivation. These aspects were chosen because they are proven to influence the continuance intention to use an application (Hu et al., 2016; Wu and Chen 2017).

The task-technology fit aspect measures the degree of compatibility between technology and the tasks performed by its users (Goodhue and Thompson 1995). If technology is suitable for completing a particular task, the technology will likely contribute to the performance of its users (Goodhue et al. 2000; Jarvenpaa 1989; Vessey 1991). In the context of MTRS, task-technology fit means the level of suitability of the MTRS application used by the user to the user's needs in completing their task, which is getting recommendations for tourist destinations. If the users are satisfied with their recommendations, they will likely continue to use the MTRS application. Customers' experiences and feelings when using applications are influenced by their perceptions of technological features (Parboteeah et al. 2009). Aspects of technological features, which can be described as a system's functional and non-functional characteristics, are needed to identify several related features. The authors want to know how features such as information about tourist destinations or sending messages can impact the visiting intentions of MTRS users. The last aspect is social motivation, which means the

motivation of an individual to get involved or interact with other people. If we look at the context of MTRS, social motivation refers to the influence of the environment on the individual's decision whether to use MTRS.

The buying decision process consists of five stages, namely knowing needs, seeking information, evaluating alternatives, purchasing decisions, and repurchasing behaviour (Kotler and Armstrong 2012). If someone has used the MTRS application, then it is very likely that he has gone through these decision processes. After going through the process, the user will determine whether he has the desire to visit the tourist destinations he sees in the MTRS application. Based on the adaptation and implications of these stages, we would like to examine whether the intention to visit tourist destinations will also increase if the users intend to use the MTRS application to get recommendations for tourist destinations. Usage intention can affect destination visit intention (Chung et al. 2015).

This study aims to determine whether using the MTRS application to get recommendations for tourist destinations influences users' intentions to visit tourist destinations. MTRS use is described using the aspects mentioned above TTF, technological features, and social motivation. In addition, to assess these aspects, the dependent variables, perceived usefulness, perceived enjoyment, and use intention, were chosen to explain the intention to use the application (Hu et al. 2016; Wu and Chen 2017) and finally explain the visit intention. MTRS developers and future researchers can feel the benefits of this research to find out an overview of MTRS use and its effect on users' intentions to visit tourist destinations.

## Literature Review

### *Mobile Tourism Recommender System*

A recommendation system is a platform or system that assists human social activities in determining whether the available options suit a particular individual (Resnick and Varian 1997). In the context of tourism, the recommendation system is a system that can provide information on recommendations for tourist destinations, places to visit, attractions to see, events to attend, accommodation options (Loh et al. 2003). Therefore, MTRS is a system that can provide recommendations for tourist destinations that can be accessed by users easily through mobile media, such as smartphones.

Several studies explore MTRS only in technical view. Previous research extends the technology travel recommender systems by utilizing collaborative filtering techniques for deriving improved recommendations (Kenteris et al. 2010) and provides review and insights on the MTRS's services (Gavalas et al. 2014). In addition, another research overview major techniques in mobile recommender systems and illustrate its computational model (Ricci 2010). However, no research has been found regarding the implementation of MTRS application on users' behavior, precisely intention to visit tourist destinations.

In Indonesia, MTRS can already be used using mobile applications, such as Google Maps, TripAdvisor, Airbnb, Traveloka, Tiket.com, and Instagram. The penetration of MTRS usage is also known from travel ticket purchase applications that provide tourist destination recommendation features, such as Traveloka and Tiket.com. It is known that Traveloka and Tiket.com are the two most frequently used travel agent applications, with Traveloka at 86% and Tiket.com at 57% (Statista Research Department 2021). With the high level of domestic tourism, these MTRS applications certainly help provide better tourist destination recommendations (Hapsari 2016). It shows that the level of use of the MTRS is already high in Indonesia and deserves further research.

### *Task-Technology Fit (TTF)*

TTF is a theory that explains the degree of compatibility between technology and the tasks of its users (Goodhue and Thompson 1995). TTF is also defined as a reference to how well a particular technology completes or assists in completing the tasks of its users (Teo and Men 2008). In an optimistic scenario, the more technology appropriate to a particular task, the higher the likelihood that technology will contribute to better job performance (Goodhue et al. 2000; Jarvenpaa 1989; Vessey 1991). Therefore, the technology and the task should be highly compatible to complete the individual's task.

In the context of MTRS, TTF means the level of suitability of the system to the needs of its users to seek recommendations for tourist destinations. The author sees that several features in the MTRS, such as travel recommendations and reviews provided by users, can be analyzed using this model. This feature can complete users' tasks, such as finding tourist attractions that match their preferences. A relationship between aspects of TTF, task-technology fit, and individual-technology fit influence perceived usefulness and perceived ease of use (Wu and Chen 2017). In this study, identifying the task-technology fit aspect of the MTRS application was carried out by assessing two variables: task-technology fit and individual-technology fit

### *Technological Features*

The experience and feelings of customers in using an application can be influenced by their perception of the technological features of the application (Parboteeah et al. 2009). Previous research discusses the features of the massive open online course (MOOC) application and use these features as a research construct (Wu and Chen 2017). They use it to see the relationship between the TAM model, the MOOC application's perceived ease of use, and perceived usefulness. The study found that the features in an application can be used as constructs that can describe the use of the application and are proven to influence perceived ease of use and usefulness.

In the context of MTRS, the example of technological features available is a recommendation feature that can provide suggestions based on detailed explanations of tourist destinations, ratings, or messaging. These features already exist in MTRS applications often used in Indonesia, such as Google Maps, TripAdvisor, Airbnb, Traveloka, Tiket.com, Instagram. In this study, identifying the technological features of the MTRS application was carried out by assessing two variables, namely support for recommendation and support for social interaction. These two constructs or variables were chosen because the recommendation and social interaction features are essential elements in developing the MTRS application to provide personalized recommendations. In addition, previous research also found that support for recommendation and support for social interaction affect perceived utilitarian value (Hu et al. 2016). Therefore, these two features are suitable for further research to describe MTRS use.

### *Social Motivation*

Several studies explain the definition of social motivation. Social motivation as a human motivation to interact with other humans (Baumeister and Leary 1995). It is also a form of motivation for an individual to conduct social interaction with other individuals (Pluymen et al. 2021). This motivation is needed because humans cannot live without other humans as social beings.

In MTRS, social motivation can be defined as environmental encouragement to use the MTRS application. It is supported by study that finds the surrounding environment dramatically influences the use and adoption of an application (Wu and Chen 2017). The use of MTRS is influenced by external factors, such as family and relatives who have used the MTRS before. The study also discusses that social motivation, such as social recognition and social influence, influences perceived usefulness and perceived ease of use from using the application (Wu and Chen 2017). Therefore, the identification of social motivation as social recognition and social influence refers to studies mention above.

### *Visit Motivation*

Visit intention refers to the desire of a tourist to visit a specific destination (Ahn et al. 2013; Baker and Crompton 2000). Visit intention combines several internal and external factors, but the most important is the combination of a person's interest and the possibility to visit a place. Several studies have shown that one's attitudes and preferences towards tourist destinations affect visit intention (Beerli and Martin 2004; Chen et al. 2014). In Indonesia, the intention to visit tourist destinations is increasing as the tourism industry in Indonesia continues to increase, by being ranked 9th in tourist growth in the world, ranked 3rd in Asia, and ranked first in Southeast Asia (The Jakarta Post 2018).

In the context of MTRS, visit intention is a person's intention to visit a tourist destination after receiving a recommendation from the MTRS. Factors that can influence a user's final intention are to use indicators such as perceived utilitarian value and perceived social value (Hu et al. 2016). Perceived usefulness, perceived enjoyment, and use intention are assessed as indicators of describing visit

intention (Beerli and Martin 2004; Chen et al. 2014). Therefore, it can be concluded that visit intention is a person's intention or desire to visit a place, in the context of this study, a tourist destination (Luo and Ye 2020).

## Conceptual Model and Hypothesis

### *Task-Technology Fit and its influence on perceived usefulness and perceived enjoyment*

As explained in the literature review, the level of task-technology fit is defined as the extent to which the capabilities of a system can match the tasks that the user must perform (Goodhue and Thompson 1995). Meanwhile, the perceived usefulness indicator assesses the level of confidence of an individual in a system that can affect its performance (Davis et al. 1989). The more technology fulfils the characteristics of a particular work task, the higher the likelihood that technology will contribute to improving job performance (Goodhue et al. 2000; Jarvenpaa 1989; Vessey 1991). Based on these explanations**,** if the task-technology fit is experienced by users, users will find it easier to use MTRS to get recommendations for tourist destinations. Research indicates a positive relationship between task-technology fit and perceived usefulness (Larsen et al. 2009). It is consistent with the findings of another research which states that task-technology fit is proven to affect the perceived usefulness of using MTRS (Wu and Chen 2017).

Perceived enjoyment is defined as the extent to which the activity of using a particular system is considered enjoyable, apart from the performance consequences resulting from the usage of the system (Venkatesh and Davis 2000). Furthermore, perceived enjoyment is similar to intrinsic motivation that drives the performance of an activity (Davis et al. 1992). In the context of MTRS, task-technology fit can be defined as the suitability of using technology in MTRS. Then, task-technology fit is assumed to affect the user's perceived enjoyment or pleasure when using MTRS to obtain recommendations for tourist destinations. It can also be interpreted that user will feel happy when using features of MTRS. This is consistent with the findings of a research which states that with a task-technology fit, users will find it easier and happier to use a system (Wu and Chen 2017). The higher the task-technology fit of technology, the higher the perceived enjoyment of the technology.

The effective use of a system by users depends on factors related to the suitability of individual technologies (Wu and Chen 2017). Thus, individual interactions with information systems are often related to their individual technology adaptation behaviour (Yu and Yu 2010). If the user has more experience in using technology, it means that there is a compatibility between the technology and the individual, then the user understands better the usefulness of a technology. Based on these studies, we predict that if users feel the compatibility when using the existing technology in the MTRS, users will also find it easier to get recommendations for the tourist destinations they want.

The suitability of technology with individual users is obtained through the process of adapting the individual to adapt his daily activities to the use of a technology (Yu and Yu 2010). If the users feel there is a match between their habits and the use of technology, then it can affect the pleasure they feel when using the technology (Wu and Chen 2017). Based on the findings of these studies, we predict that if there is individual technology fit when users use MTRS, users will also feel perceived enjoyment. Therefore, the following hypothesis are proposed.

H1: The level of Task-Technology Fit on the MTRS application has a positive effect on the user's Perceived Usefulness level

H2: The level of Task-Technology Fit on the MTRS application has a positive effect on the user's Perceived Enjoyment level

H3: The level of Individual-Technology Fit on the MTRS application has a positive effect on the user's Perceived Usefulness level

H4: The level of Individual-Technology Fit on the MTRS application has a positive effect on the user's Perceived Enjoyment level

### *Technological Feature and its influence on perceived usefulness and perceived enjoyment*

Technological features can be described as a system's functional and non-functional characteristics. In this study we examine two technological features of MTRS, support for social interaction and support for recommendation. Support for social interaction is a model that describes the ability of technology to provide services where users can interact with each other (Hu et al. 2016). The MTRS application offers various methods to support communication between users, such as a review system and features for sending messages. Through these, users can increase their social presence and strengthen their relationships with each other (Zhang et al. 2014). In addition, users also get social support, both in the context of information and emotional (Liang et al. 2011). This support makes them feel more confident about the perceived usefulness of the MTRS application (Hu et al. 2016). Based on the explanations of these studies, it can be assumed that if MTRS can provide features that allow users to interact with other users, users will find it easier to use MTRS. Research indicates a positive relationship between support for social interaction and perceived usefulness (Larsen et al. 2009).

The existence of social interaction between one individual and another in an application can increase the perceived enjoyment of the application. In the context of MTRS, support for social interaction is the ability of MTRS to provide interaction features between users (Zhao and Lu 2012; Chen et al. 2016). If the MTRS application can provide this feature, it is assumed that the perceived enjoyment can also increase. These results are in accordance with the findings of research which remarks that support for social interaction has an influence on perceived utilitarianism (Hu et al. 2016). Based on these studies, it can be assumed that if MTRS can provide features that allow users to interact with other users, users will feel happier to use MTRS.

Support for recommendation explains the ability of a system to provide recommendations according to preferences taken from user data, making it easier for users to find relevant information (Arazy et al. 2010). Information overload from a website can cause users to find it difficult to find relevant information. Therefore, recommendations are needed to help users make their choices. It was found that users tend to accept the recommendations given by the system in making their choices (Smith et al. 2005). Based on the research findings, it can be assumed that if the MTRS has good and sophisticated recommendation features, users will also find it easier to get recommendations for the tourist destinations they want. Research indicates support for recommendation has a positive effect on perceived usefulness (Hu et al. 2016).

When users enjoy the use of the system due to reduced cognitive load, they may find the recommendation system useful to complete their tasks (Kumar and Benbasat 2006). It can be assumed that if the MTRS has a qualified recommendation feature, users will feel happier when they get recommendations for the tourist destinations they want. The recommendation feature is assumed to affect the user's enjoyment when using MTRS in getting recommendations (Hu et al. 2016). In the context of MTRS, it shows that there is a strong relationship and influence in the ability of an MTRS to provide recommendations on user comfort and pleasure in using the technology. Therefore, the following hypothesis are proposed.

H5: The level of Support for Social Interaction on the MTRS application has a positive effect on the user's Perceived Usefulness level

H6: The level of Support for Social Interaction on the MTRS application has a positive effect on the level of user's perceived enjoyment

H7: The level of Support for Social Recommendation on the MTRS application has a positive effect on the level of user’s Perceived Usefulness

H8: The level of Support for Social Recommendation on the MTRS application has a positive effect on the user's Perceived Enjoyment level

### *Social Motivation and its influence on perceived usefulness and perceived enjoyment*

Social recognition is a model that explains the degree of recognition of the identity and self-esteem of someone or something by others (Basumallick 2019). In fact, acknowledgement plays an important role, not only in realizing the person's own abilities and skills but also in facilitating social interaction (Wu and Chen 2017). With social interaction, users can develop a deep understanding, not only about self-confidence and self-esteem but also relationships with other people in society (Wu and Chen 2017). The level of perceived usefulness of users towards an application will increase when they know that other people who have a relationship with them also feel the same value and benefits for the application (Wu and Chen 2017). Based on the explanations of these studies, it can be assumed that if users get recognition from their environment for using MTRS, users will feel that MTRS can make it easier for them to obtain recommendations for tourist destinations.

The interaction between one individual and another requires the recognition of the identity of an individual to another individual (Chen et al. 2016). The study also states that the recognition of identity has a positive effect on the perceived enjoyment of the system. Based on the explanations, it can be assumed that if users get recognition from their environment for using MTRS, users will feel that MTRS can provide pleasure and enjoyment for them when getting recommendations for tourist destinations.

Social influence is an individual's ability to make a real change based on feelings and behaviors because of interactions with other people who have the same characteristics, desired people, or people who are experts in a field (Ogara et al. 2014). Social influence is assessed as a condition in which a person weighs the opinions of those closest to him to do something. In addition, it was also found that social influence is one of the variables that have a positive impact on perceived usefulness (Yang et al. 2009). Based on the findings of these studies, it can be assumed that if there are social influences that encourage users to use MTRS, users will also feel the perceived usefulness of using MTRS to get recommendations for tourist destinations.

Social urges can lead to enjoyment of the use of technology (Junglas et al. 2013). From a socialization perspective, technologies such as websites (Wang et al. 2007; Wakefield et al. 2011), instant messaging (Li et al. 2005), virtual communities (Brown and Bell 2006; Bailenson and Beall 2006), or computer-supported collaborative learning environments (Kreijns et al. 2007) are experienced differently depending on existing technological capabilities. Based on these findings, it can be assumed that if social influence encourages users to use MTRS, users will feel happiness and pleasure in using MTRS to get recommendations for tourist destinations. Therefore, the following hypothesis are proposed.

H9: The level of Social Recognition on the MTRS application has a positive effect on the level of Perceived Usefulness of users

H10: The level of social recognition in the MTRS application has a positive effect on the level of user's perceived enjoyment

H11: The level of Social Influence on the MTRS application has a positive effect on the user's Perceived Usefulness level

H12: The level of Social Influence on the MTRS application has a positive effect on the user's Perceived Enjoyment level

### *The influence of perceived Usefulness and perceived enjoyment on use intention and visit intention*

Use intention is a strength of a person's desire to do a specific behaviour (Fishbein and Ajzen 1975). The perceived usefulness of the MTRS application can be described as the extent to which a person believes that the application can be a driving force to achieve his goal, which is to get tourist recommendations. Perceived usefulness is a direct determinant of sustainable use intentions (Lee et al. 2013). For example, in the MOOC literature written it is stated that the intention to continue using the MOOC system is significantly influenced by a person's perceived usefulness of the system (Alraimi et al. 2015). In this study, it is assumed that someone may want to use the MTRS application if he believes that the MTRS application can help him to achieve his goal. Therefore, we predict that perceived usefulness affects use intention.

Visit intention, which explains a person's willingness or desire to visit a tourist destination after seeing interesting information (Chen et al. 2014), has a positive relationship with perceived usefulness. This is due to the information overload phenomenon that has been discussed previously. Information overload can lead to reduced quality of decisions, lack of confidence in the choices chosen, and the time needed to reach a decision becomes longer (Chervany and Dickson 1974). We predict that the existence of information overload can reduce the visit intention indicator from users. On the other hand, perceived usefulness will help users make their choices in the midst of information overload, thereby reducing the effects of information overload itself. Therefore, we predict that perceived usefulness affects visit intention.

Perceived enjoyment has a significant effect on the frequency of use or the frequency of using technology (Teo et al. 1999). This is consistent with the findings of research which explain that perceived enjoyment of internet use has a positive relationship with use intention (Moon and Kim 2001). Then, other studies also found that perceived enjoyment can significantly affect the intention of use of a technology (Teo and Noyes 2011). We predict that in the context of MTRS use, perceived enjoyment also affects use intention.

Perceived enjoyment can be interpreted as the user's feeling of pleasure when using MTRS. Previous research has found that perceived enjoyment has a significant effect on the behavioural intentions of users (Van der Heijden 2003; Hsu and Lin 2008). In this study context, the behavioural intention of the user is the intention to visit a tourist destination or visit intention. Thus, we predict that perceived enjoyment or pleasure can have a significant influence on user intentions in the context of MTRS, namely the intention to visit tourism.

The buying decision process consists of five stages, namely knowing needs, seeking information, evaluating alternatives, purchasing decisions, and repurchasing behaviour (Kotler and Armstrong 2012). This process can also be adapted to the context of tourist visits. As explained in the previous section, many factors are assumed and proven to influence a person's intention to use the MTRS application. If someone has used the MTRS application, then it is very likely that he has gone through these decision processes. After going through the process, the user will determine whether he has the desire to visit the tourist destinations he sees in the MTRS application. Based on the adaptation and implications of these stages, we predict that if the user already has the intention to use the MTRS application to get recommendations for tourist destinations, it is very likely that the intention to visit tourist destinations will also increase. Usage intention can affect destination visit intention (Chung et al. 2015). Therefore, the following hypothesis are proposed.

H13: The level of Perceived Usefulness on the MTRS application has a positive effect on the level of user's Use Intention

H14: The level of Social Influence on the MTRS application has a positive effect on the level of user’s Perceived Usefulness

H15: The level of Perceived Enjoyment on the MTRS application has a positive effect on the level of user's Use Intention

H16: The level of Perceived Enjoyment on the MTRS application has a positive effect on the user's Visit Intention level

H17: The Use Intention level in the MTRS application has a positive effect on the user's Visit Intention level

Figure 1 describes the proposed model.

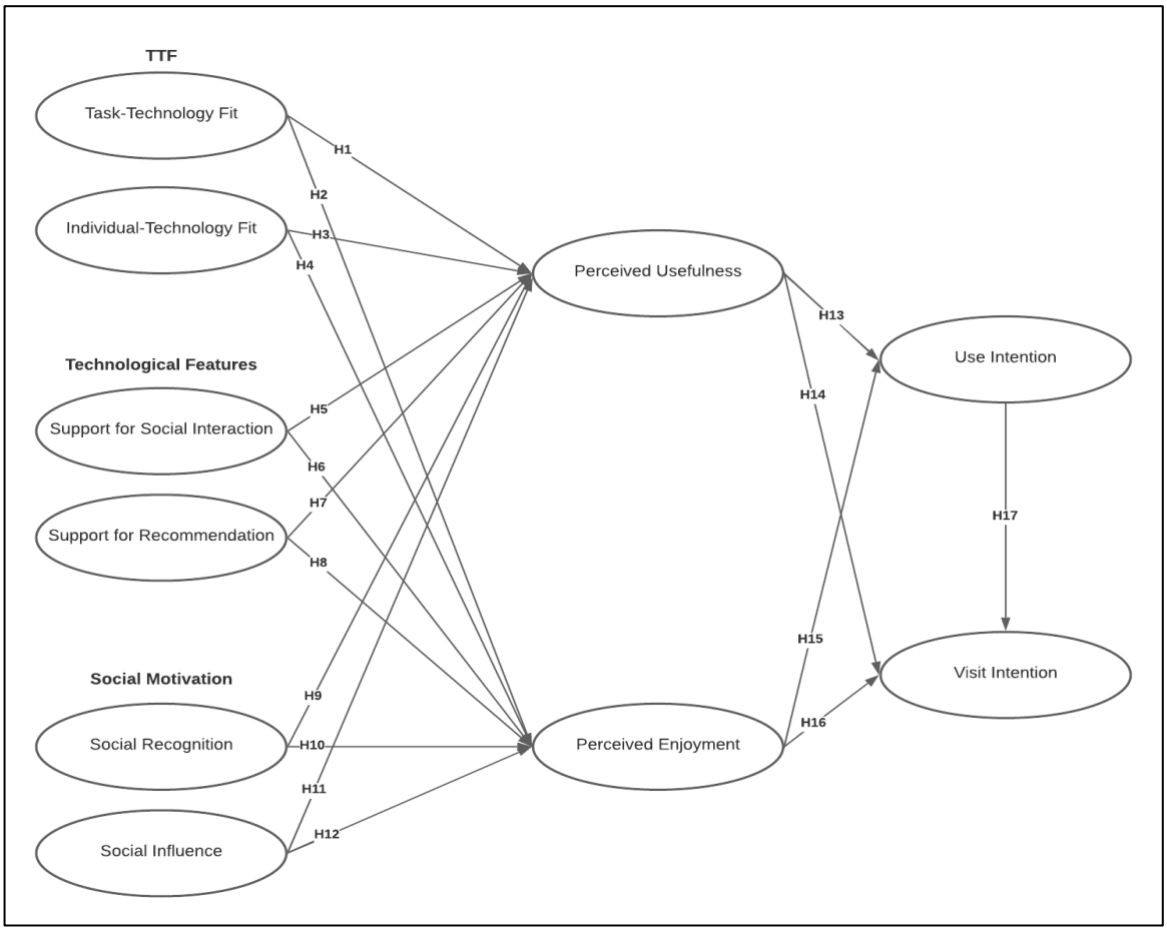


**Figure 1. Proposed Research Model**

## Research Methodology

### *Sampling and data collection*

The questionnaire is distributed online through social media for one month, from May 5, 2021, to June 5, 2021. The author uses social media such as Twitter, Facebook, Instagram, LINE to facilitate the distribution of the questionnaire. The criteria of respondents are individuals who have used MTRS application. Finally, the amount of valid data to be analyzed is 213 data. Table 1 summarizes the demographic characteristics of the respondents.

**Table 1. Respondent Demographics**

| Demographic Types | Options | Percentage |
|---|---|---|
| Gender | Men | 39% |
| | Women | 61% |
| Age | 17 - 25 years | 32.1% |
| | 26 - 35 years | 6.7% |
| | 36 - 45 years | 8.1% |
| | > 45 years | 53.1% |
| Education Level | High School | 6.6% |
| | Diploma | 7.5% |
| | Bachelor | 71.4% |
| | Master | 12.7% |
| | PhD | 1.9% |
| Frequency of MTRS use | < 2 | 40.4% |
| | 2 - 3 | 31.9% |
| | 4 - 5 | 10.3% |
| | > 5 | 17.4% |

Then, for the discriminant validity testing, this study employs Fornell-Larcker Criterion test. The loading factor of an indicator must be higher than other constructs' cross loading and each of indicator must have AVE value higher than another constructs' AVE (Hair et al. 2011). For the last evaluation, this study puts on the composite reliability test and Cronbach Alpha test. The results of those two tests must be more than 0.7 for each of the indicators. As shown in Table 2, the model passes all the tests.

**Table 2. Result of Measurement Model Evaluation**

| | ITF | PE | PU | SI | SR | SFR | SSI | TTF | UI | VI | CA | CR | AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ITF** | **0.871** | | | | | | | | | | 0.842 | 0.904 | 0.759 |
| **PE** | 0.610 | **0.885** | | | | | | | | | 0.908 | 0.935 | 0.783 |
| **PU** | 0.519 | 0.703 | **0.877** | | | | | | | | 0.850 | 0.909 | 0.769 |
| **SI** | 0.516 | 0.518 | 0.518 | **0.920** | | | | | | | 0.909 | 0.943 | 0.846 |
| **SR** | 0.546 | 0.538 | 0.416 | 0.589 | **0.881** | | | | | | 0.857 | 0.912 | 0.776 |
| **SFR** | 0.614 | 0.630 | 0.659 | 0.506 | 0.429 | **0.842** | | | | | 0.794 | 0.879 | 0.709 |
| **SSI** | 0.516 | 0.310 | 0.301 | 0.344 | 0.382 | 0.464 | **0.890** | | | | 0.913 | 0.938 | 0.791 |
| **TTF** | 0.634 | 0.641 | 0.594 | 0.430 | 0.375 | 0.548 | 0.272 | **0.847** | | | 0.868 | 0.910 | 0.717 |
| **UI** | 0.572 | 0.812 | 0.714 | 0.551 | 0.511 | 0.624 | 0.302 | 0.647 | **0.894** | | 0.874 | 0.923 | 0.799 |
| **VI** | 0.673 | 0.748 | 0.623 | 0.549 | 0.587 | 0.596 | 0.391 | 0.615 | 0.792 | **0.885** | 0.907 | 0.935 | 0.782 |

### *Structural Model Evaluation*

This study uses a one-tailed test with a significance level of 0.05. This can be a reference to accept or reject H0 by looking at the p-values. If the p-values are greater than 0.05, then hypothesis is not significant or fails to reject H0. As shown in Table 3 and Figure 2, of the 17 hypotheses proposed, ten were accepted, and seven were rejected.

The coefficient of determination test results as shown in Table 4. The value of the coefficient of determination or R Square can measure how far the model can explain the variation of the dependent variable. The value of the coefficient of determination is in the range of zero (0) and one (1). Based on the test results, it can be concluded that the existing statistical model can explain 58.8% of the variance of perceived enjoyment, 54% of the variance of perceived usefulness, 70% of the variance of use intention, and 66.1% of the variance of visit intention. It shows that the coefficient of determination for these variables are large enough to provide almost all the information needed to predict the variation of the dependent variable (Ghozali 2009).

**Table 3. Result of Structural Model Evaluation**

| Hypothesis | Parameter | | | T Statistics | P Value | Remarks |
|---|---|---|---|---|---|---|
| H1 | TTF | → | PE | 3.714 | 0.000 | Accepted |
| H2 | TTF | → | PU | 3.585 | 0.000 | Accepted |
| H3 | ITF | → | PE | 1.275 | 0.202 | Rejected |
| H4 | ITF | → | PU | 0.282 | 0.778 | Rejected |
| H5 | SSI | → | PE | 1.356 | 0.175 | Rejected |
| H6 | SSI | → | PU | 0.781 | 0.435 | Rejected |
| H7 | SFR | → | PE | 4.017 | 0.000 | Accepted |
| H8 | SFR | → | PU | 5.810 | 0.000 | Accepted |
| H9 | SR | → | PE | 2.716 | 0.007 | Accepted |
| H10 | SR | → | PU | 0.814 | 0.416 | Rejected |
| H11 | SI | → | PE | 1.064 | 0.287 | Rejected |
| H12 | SI | → | PU | 2.776 | 0.006 | Accepted |
| H13 | PU | → | UI | 3.616 | 0.000 | Accepted |
| H14 | PU | → | VI | 0.720 | 0.472 | Rejected |
| H15 | PE | → | UI | 8.762 | 0.000 | Accepted |
| H16 | PE | → | VI | 2.869 | 0.004 | Accepted |
| H17 | UI | → | VI | 5.731 | 0.000 | Accepted |

**Table 4. R-Square Results**

| Parameter | R Square | R Square Adjusted |
|---|---|---|
| PE | 0.588 | 0.576 |
| PU | 0.540 | 0.526 |
| UI | 0.700 | 0.697 |
| VI | 0.661 | 0.656 |

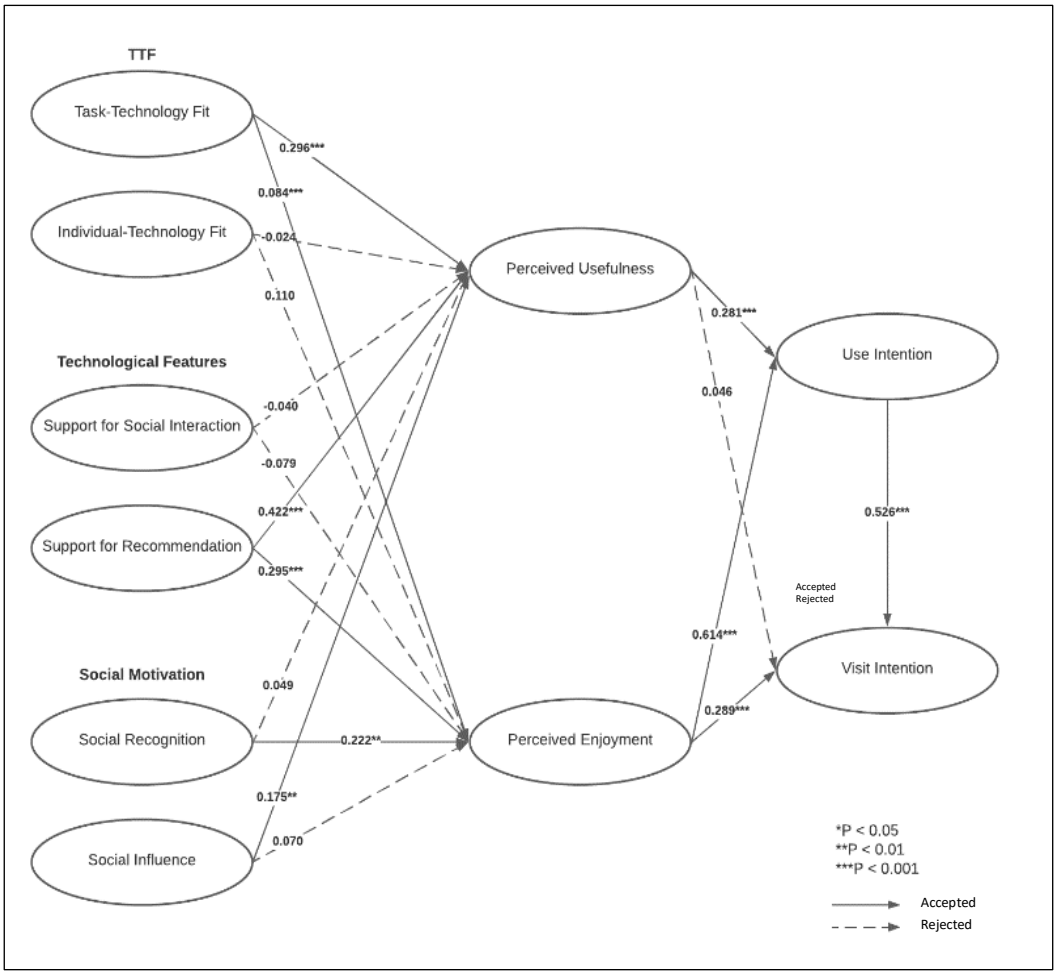


**Figure 2. Hypothesis Testing Result Model**

## Discussion

As predicted, task-technology fit positively affect the perceived usefulness and the perceived enjoyment of using MTRS. These results are in line with research by Wu and Chen (2017), which shows that task-technology fit can affect the perceived usefulness of and perceived ease of use in the context of education, or more precisely, the MOOC digital learning platform.

This is also in line with research by Yu and Yu (2010), which shows the effect of task-technology fit on perceived usefulness and perceived ease of use in the context of e-commerce. In contrast to task-technology fit, this study finds that the component of TTF, individual-technology fit, has no effect on perceived usefulness and perceived enjoyment. These results are almost in line with research by Wu and Chen (2017), which indicates that individual-technology fit does not have a direct influence on perceived usefulness but is mediated through an intermediary relationship of influence with perceived ease of use. This discrepancy may be the result of the context of the MTRS under study. When the individual-technology fit level becomes larger, users will perceive that the MTRS is easier to use to find tourist destination recommendations, which will influence task-technology fit more than individual technology fit. The implication for MTRS developers is they should provide detailed explanations of the features so that users feel suitable and appropriate to use them. By providing travel recommendations through features that are easy and clear to use, users will find it easier to get recommendations for tourist destinations, affecting increasing intentions to visit tourist destinations.

This study also finds that only one of the two technological features constructs, support for recommendation, has an influence on perceived usefulness and perceived enjoyment. It indicates that

the MTRS feature in providing recommendations for tourist destinations is the most useful feature for users to make their choices in determining tourist destinations. In addition, it is very rare that there are MTRS applications that provide support for social interaction features. These features include the ability for users to interact or discuss with other users on MTRS. So, it is assumed that users do not have a basic connection or relationship with these features when using MTRS, so there is no influence between support for social interaction with perceived usefulness and perceived enjoyment. The results obtained are in line with research conducted by Hu et al. (2016), which demonstrates that support for recommendation influences perceived utilitarian value and research by Wu and Chen (2017), which learns that technological features also affect perceived usefulness in the context of MOOC. The implication for MTRS developers is they must improve their tourist destination recommendation features by utilizing users' data and artificial intelligence technology so that the feature would be more personalized and match user preferences.

Social recognition and social influence also influence perceived usefulness and perceived enjoyment. More specifically, social recognition only affects perceived enjoyment, and social influence only affects perceived usefulness. These results are not consistent with research conducted by Wu and Chen (2017) which states that the two constructs on social motivation have an influence on perceived usefulness in the context of e-commerce. In addition, the results of this study are also not consistent with research conducted by Venkatesh and Davis (2000), which reveals that job relevance has a direct effect on perceived usefulness. It can be concluded that the construct of social recognition and social influence can be used to examine visit intention from the use of MTRS. This finding also holds valuable implications for MTRS application developers to be able to continue to develop marketing activities that can increase the social motivation of users.

Finally, perceived usefulness, perceived enjoyment, and use intention were found to have different effects on visit intention. It is known that perceived enjoyment and use intention of MTRS directly affect visit intention. It shows that the pleasure experienced by users and the intention to use MTRS application can increase the users' visit intention to a tourist destination. In contrast, perceived usefulness indirectly affects visit intention through use intention. This finding explains that if users find MTRS is easy to use and can improve their work, they will increase their intention to use MTRS application and eventually lead them to visit a tourist destination. In addition, we found that the use intention of MTRS had the most substantial influence on visit intention.

Based on the explanation described previously, we can conclude that the perceived usefulness and enjoyment of using MTRS affect the user's visit intention. Therefore, MTRS developers should consider usefulness and enjoyment factors when developing MTRS applications.

## Conclusion

This study is conducted to determine the effect of using the MTRS application on the intention to visit tourist destinations. The use of the MTRS application is identified based on factors that are divided into several aspects. To measure the intention to visit a tourist destination, perceived usefulness and perceived enjoyment are used to measure aspects of the use of MTRS; TTF, technological features, and social motivation. Based on the results of data processing and analysis, it is known that there are 10 out of 17 hypotheses that are successfully accepted. The support for recommendation variable has the most influence on perceived enjoyment and perceived usefulness variable. Then perceived enjoyment variable has the most influence on the use intention variable, and the use intention variable has the most influence on the visit intention variable. Finally, this research is expected to be useful to be able to provide a general description of the intention to visit tourist destinations owned by users by using MTRS as a medium for finding recommendations for tourist destinations**.**

This research uses a cross-sectional study to find the relationship between variables to determine the effect of MTRS application on the intention to visit tourist destinations. However, user behavior is dynamic and cannot be measured only once. Aspects such as TTF, technological features, and social motivation of users will always change following changes in the environment and technology owned by MTRS. In addition, force majeure circumstances, such as the current COVID-19 pandemic, can also be considered to determine MTRS use and intentions to visit tourist destinations during the pandemic.

Therefore, future research may use longitudinal study to provide a more accurate picture of the influence of existing constructs on intentions to visit tourist destinations.

Finally, we suggest for future research is to focus more on technological features. It can be helpful for MTRS developers because one of the variables from this aspect, support for recommendation, has a significant effect on the two dependent variables, perceived usefulness, and perceived enjoyment, which are then proven to increase users' intentions to visit tourist destinations. Developers can develop more up-to-date and sophisticated recommendation features by using various user data to create recommendations that match the user. It can be done by utilizing artificial intelligence technology that is more personalized to suit user preferences.

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