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## Article

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## MANAGEMENT | RESEARCH ARTICLE

# Antecedents of Muslim tourist loyalty: The role of Islamic religiosity and tourist value co-creation

Abror Abror<sup>1</sup>, Dina Patrisia<sup>1</sup>, Yunita Engriani<sup>1</sup>, Yunia Wardi<sup>1</sup>, Rahmad Solling Hamid<sup>2</sup>, Mukhamad Najib<sup>3</sup>, Marhana Mohamed Anuar<sup>4</sup>, Mohamed Battour<sup>5</sup> and Ririn Tri Ratnasari<sup>6\*</sup>

**Abstract:** This research investigates the antecedents of tourist loyalty in the Muslim-friendly tourism context. It examines the link between Islamic tourism destination attributes, service quality, customer engagement, value co-creation, and loyalty. It also highlights the moderating roles of Islamic religiosity. This study is survey research using a questionnaire to 450 Muslim tourists as the respondents. The data were collected using purposive sampling as the sampling method. After several preliminary tests, this study only used 375 usable responses in the analysis. It employed Structural Equation Model (SEM) with AMOS 24 as the software data analysis package. This study revealed that Islamic tourism destination attributes have significant impacts on service quality, customer engagement, and tourist loyalty. It found that service quality and tourist engagement are the antecedents of tourist value co-creation. Value co-creation also has a significant influence on tourist loyalty. Surprisingly, it also highlighted significant moderating impacts of religiosity. This research only focused on the Indonesian context; hence, the findings have limited generalization. Therefore, it may extend to other Muslim or non-Muslim



Abror Abror

### ABOUT THE AUTHOR

Marhana binti Mohamed Anuar is an associate professor of marketing at Universiti Malaysia Terengganu, Terengganu, Malaysia. She has been in the academic line since 2001. She received her PhD in Marketing from Universiti Sains Malaysia (USM), Master in Business Administration (MBA) degree from Middlesex University London and Bachelor of Science in Business Administration from Northern Arizona University. She has led several national grants and is member of prestigious academic associations such as British Academy of Management, Academy of Marketing Science, Academy for Global Business Advancement and Eurasian Business and Economics Society. She has published more than 40 articles in refereed journals and has presented papers at both local and international conferences. Her research interests are in the areas of cause-related marketing, social marketing and green marketing. She has been invited as a guest speaker for government bodies and serve as a reviewer for several conferences and journals.

### PUBLIC INTEREST STATEMENT

This research investigates the antecedents of tourist loyalty in the Muslim-friendly tourism context. It examines the link between Islamic tourism destination attributes, service quality, customer engagement, value co-creation, and loyalty. It also highlights the moderating roles of Islamic religiosity. This study revealed that Islamic tourism destination attributes have significant impacts on service quality, customer engagement, and tourist loyalty. It found that service quality and tourist engagement are the antecedents of tourist value co-creation. Value co-creation also has a significant influence on tourist loyalty. It also highlighted significant moderating impacts of religiosity.

countries which concern with Muslim-friendly tourism. Tourist loyalty has several antecedents which are not addressed in this study. Thus, future studies may address other influence factors, such as tourist sociocultural and psychological factors which relate to tourist loyalty. Finally, the managers have to concern with the tourist religiosity in providing their products or services.

**Subjects:** Marketing; Research Methods in Management; Hospitality; Tourism

**Keywords:** Islamic tourism destination attributes; service quality; tourist engagement; religiosity; tourist value co-creation; tourist loyalty; responsible consumption

## 1. Introduction

Halal tourism is Muslim-friendly tourism. There are no travel restrictions in Islam, as long as it follows Sharia. The purpose of traveling in Islam according to Ratnasari (2020), namely: to see and admire Allah's creation, seek knowledge and experience, introduce Islam, strengthen brotherhood, entertainment. Tourist loyalty is a key point in managing tourism destinations (Leo et al., 2021). All tourism destinations will concern about the loyalty of tourists. Tourist destinations have to pay attention to the loyalty of tourists (Rahman et al., 2020). The management of tourist destinations will determine what factors will affect tourist loyalty. According to Patwardhan et al. (2020), tourist loyalty toward a destination has some indicators, such as willingness to revisit, recommend to others and stay for a longer period in the tourist destination. Tourist loyalty is influenced by several factors, e.g., tourist satisfaction, engagement, service quality, value co-creation, and also religiosity (Mohamed et al., 2020; Nadeem et al., 2021; Suhartanto et al., 2021; Wisker et al., 2020).

Furthermore, one of the potential customers in tourism right now is Muslim tourists (Suhartanto et al., 2021). They have purchasing power and are concerned the Halal issues such as non-pork foods when they travel to tourist destinations. According to World Youth Student and Educational Travel Confederation (WYSETC), Halal attributes in tourism have become an emerging topic not only in Muslim countries but also in non-Muslim countries such as Singapore, Taiwan, Korea, and Japan. They attract Muslim tourists as their potential income from the tourism sector (Wysetc, 2017). They assert that Halal or Muslim-friendly tourism is one of the fastest-growing businesses recently. Battour et al. describe halal tourism or Muslim-friendly tourism as a tourism product or act that is halal according to Sharia law to serve the needs of Muslim tourists and achieve Muslim friendliness of a destination. Halal tourism meets the demands of Muslim tourists, which may differ from tourists who adhere to religions other than Islam (Battour et al., 2022). Muslim-friendly tourism refers to tourism that accommodates Muslim tourists' needs based on their religious beliefs. The tourist destinations have to pay attention to some Islamic tourism destination attributes (ITDA) such as worship facilities (Battour et al., 2014).

Moreover, the data shows that Muslim tourists have spent USD 220 billion annually and it will rise to USD 300 billion by 2026 (Wysetc, 2017). Indonesia has great potential for halal tourism and is an opportunity to be developed for tourist travel providers. They can target Muslim tourists by organizing halal tourism for example the availability of halal food and drinks, travel schedules tailored to prayer times and the convenience of praying at the local mosque, as well as the provision of tour Muslim tourguides (Ratnasari, 2020). Wreksono (2016) asserts that Indonesia has won 12 categories in the world Halal tourism award. It means that Indonesia has already known as one of the tourist destinations which is friendly to Muslim tourists. In addition, Indonesia has many attractive tourist destinations, including halal tourism, green tourism, culinary tourism, cultural tourism, marine tourism, and much more (Ratnasari et al., 2021). The number of tourists had plummeted during the COVID pandemic. Fortunately, the situation is going better right now. This opportunity is important for the tourism sector in Indonesia and arguably it will increase Indonesia's national income. Therefore, it is a promising business. Covid affected the human behavior. Tourists will more aware with their health and Halal tourism is compatible with this

situation because it has special requirements such as foods. Foods should be cooked properly and it will reduce the risk of virus infected (Suhartanto et al., 2022). The government and tourist destination management has to create the best program to attract the tourists and make them satisfied and want to revisit or recommend the destination to others. This is a part of the loyalty program. Hence, tourist loyalty is a key to business success in the future.

This study attempts to investigate the antecedents of tourist loyalty in the Muslim-friendly tourism context. The influenced factors of tourist loyalty are important in managing tourism business. Especially in Indonesia as a Muslim majority country, tourist loyalty is important for the income generating of the country. Based on the data from National Statistical Bureau (BPS), the contribution of tourism sector on Gross Domestic Product (GDP) in 2022 is 3.6% in 2021 (BPS, 2022). The Ministry of Tourism and Creative Economy (Kemenparekraf) in the Strategic Plan for 2020–2024 has planned to achieve the target of 4.3% contribution of Indonesian GDP. Therefore, tourist's loyalty becomes an important factor in achieving that target. It also examines the link between, value co-creation and loyalty. Beside the loyalty, one important thing in developing tourism sector is the participation of the tourists in the tourism development. The tourist's participation also calls as tourist value co-creation. Tourism sector needs the participation of tourist such as give comments or suggestions for a better service and when the management allows the tourists to participate in develop a better service, it might have an impact on the tourist's loyalty too. Moreover, it also assesses the moderating roles of religiosity. Religiosity might have an impact on Muslim tourist in travelling to a destination (Eid & El-Gohary, 2015). However, research on religiosity especially in the tourism sector is still limited. Therefore, this study gives some insights into the theoretical development and also the decision-makers. This study has several useful theoretical contributions for academics and useful managerial implications for managers to develop Islamic tourism. The first theoretical contribution is it contributes to the tourism literature especially in the Muslim tourist context by examining the Islamic tourism destination attributes (ITDA)-loyalty relationship which has not been thoroughly examined in previous studies. The direct relationship between ITDA and loyalty is still limited in earlier studies (Suhartanto et al., 2021). Whilst, ITDA might have significant contribution to improve the tourist loyalty, especially in the Halal tourism context. There are many challenges to conduct research in this area. Particularly, existing research overlooks the effect of destination attributes on tourists' perceptions of their trip experiences. Therefore, an opportunity to fill the gap is still open. Hence, this study examines how tourists perceive several destination attributes, their quality-of-service experience (QSE) and tourist loyalty.

Moreover, the outcomes of the co-creation behaviors need to be examined too. Several studies indicated that consumer participation in co-creation can promote their loyalty), whereas other empirical studies reached inconclusive findings. This suggests that there may be certain preconditions between consumer co-creation behavior and their loyalty (Zhu et al., 2022). Third, it still exists the need to empirically investigate and validate the strength and directionality of relevant constructs that can serve as the antecedents or outcomes of consumer engagement. Some authors argue that value co-creation leads to engagement (Assiouras et al., 2019) and some authors highlighted engagement as an antecedent of value co-creation (Rather, 2021a). Therefore, this study supports the significant impact of tourist engagement on value co-creation. It also contributes to the debate on the link between tourist loyalty and value co-creation. Nadeem et al. (2021) assert that loyalty will lead to value co-creation, whilst, Cossio-Silva et al. (2016) argue that value co-creation is an antecedent of loyalty. Value co-creation might have a contribution in developing the tourist loyalty because they feel that they are invited to contribute and have a sense of belonging. It might increase their attachment to the tourist destination. Therefore, this study confirms that value co-creation is the influencing factor on tourist loyalty. Hence, it contributes to the relationship between customer value and loyalty theory. Lastly, it highlights the moderating roles of religiosity on the relationship between service quality, tourist engagement, and tourist value co-creation which are under-researched previously.

This research also contributes to the managerial implications in handling tourist loyalty by paying more attention to some destination loyalty influence factors such as service quality,

Islamic tourism destination attributes (e.g., Islamic facilities), and tourist engagement. The management of tourist destinations may create a program to increase the perceived ITDA and service quality by improving the quality of facilities and also the competencies of the employees in serving Muslim tourists. Therefore, it will lead to the tourists' loyalty. Furthermore, the management also needs to be concerned with the religiosity of the tourists when they deliver their service.

## 2. Literature review

### 2.1. Tourist loyalty

According to Suhartanto et al. (2020), tourist loyalty is the emotional expression and behavioral action of the tourists related to products and services that they have received. One of the goals of service providers is to be able to create a strong relationship with customers and in the end will create loyal customers (Ratnasari et al., 2020). Some researchers have determined two types of loyalty including loyalty as attitude and loyalty as behavior (Ahn & Thomas, 2020; Hasan et al., 2020; Mohamed et al., 2020; Suhartanto et al., 2020). Attitudinal loyalty refers to the emotional expression of tourists toward the destination such as willingness to revisit or willingness to recommend to others. Behavioral loyalty is related to tourist behavior in doing revisit the destination (Leo et al., 2021). This is in line with Ratnasari et al. (2020) who state that tourists who already have knowledge or beliefs about cognitive images and affective images can become loyal by doing the behavior. Tourists behavior, among others, to visit again in the future, saying things positive, and recommending to others. This study focuses on attitudinal loyalty. Theories in consumer behavior such as the theory of reason action (RA) highlight that loyalty is a consequence of some factors (Yang et al., 2015). Some factors that have been identified as the influence factors of tourist loyalty are tourist satisfaction (Al-Ansi & Han, 2019), brand image (Hapsari et al., 2017), perceived value (Jeong & Kim, 2019), service quality (Dedeoğlu, 2019), emotional experience (Patwardhan et al., 2020) and complaint handling (Morgeson et al., 2020). The theory of loyalty is also related to tourism concepts. According to Han et al. (2017), loyalty has some indicators, such as willingness to recommend and spend more for it in the future. In handling tourist destinations such as Muslim-friendly destinations, tourist loyalty has an important role, especially to make sure the sustainability of the tourism destination.

### 2.2. Islamic Tourism Destination Attributes (ITDA)

Halal tourism is an emerging topic in the tourism sector recently (Abror et al., 2021; Sofyan et al., 2021). Islamic tourism destination attributes (ITDA) in the Halal tourism context can be divided into four dimensions, including worship facilities, halalness, alcohol and gambling free, and Islamic morality (Battour et al., 2014; Yaakop et al., 2017) Wardi et al. (2018) have also highlighted four dimensions of Halal tourism attributes (i.e., Islamic facilities, halalness, general Islamic morality and alcohol and gambling free). These attributes will be considered by Muslim tourists when they want to visit a tourist destination. Worship facilities such as the availability of masjid and the facility for *wudhu'* (ablution) are essential for the visitors. They are also concerned with the halalness of foods and drinks. General Islamic morality refers to the tourism destination's concern about unethical or banned activities based on Islamic values such as no prostitution or sexual attraction in the tourist destination. Finally, alcohol and gambling free refers to banning alcohol and gambling in tourist destinations.

Moreover, Dabphet (2021) has revealed relatively identic dimensions of halal tourism attributes, including halal food, hotel entertainment and facilities, halal food preparation, and halal-oriented recreation and service quality. The perception of Muslim tourists toward Muslim-friendly tourism attributes will relate to satisfaction, engagement, and loyalty (Al-Ansi & Han, 2019; Battour et al., 2020).

### **2.3. Islamic tourism destination attributes, service quality, tourist engagement, and tourist loyalty**

Islamic tourism destination attributes (ITDA) might relate to service quality. Service quality is an outcome or evaluation between expectation and perceived service or judgment about superiority of the service (Hapsari et al., 2017). Bhattacharya et al. (2023) have modified the measurement of service quality for hospitality and tourism context, but it still concerns with five dimensions from Parasuraman. While, Perramon et al. (2022) also research the service quality of the hotel. According to Battour et al. (2020), perception of Halal tourism products and services will lead to tourists' perceived trip quality. Perception of Halal tourism products and services is related to ITDA. Moreover, Shafaei (2017) have also asserted that the involvement of the tourists with the destination will lead to their perceived destination brand quality. Tourists' involvement with the Muslim-friendly destination closely relates to their perception of ITDA. Accordingly, when Muslim tourists have perceived a better ITDA, it will lead to their perception of the service quality. Therefore, it may be argued that ITDA relates to tourists' perceived service quality. This study proposes a hypothesis that:

**H1:** Islamic tourism destination attributes (ITDA) has a positive impact on service quality.

Furthermore, ITDA also might relate to tourist engagement. Tourist engagement refers to the customer readiness in interact with or involve in an object or participate in a service experience (Nadeem et al., 2021; Yen et al., 2020). Abror et al. (2021) highlighted the link between Muslim-friendly tourism attributes, tourist engagement, and tourist satisfaction. They found that Muslim-friendly tourism has a significant impact on tourist engagement. Touni et al. (2019) examine the role of tourist brand experience toward tourist engagement. Tourists' brand experience refers to the tourists' experience when using a product or service. It relates to ITDA. Moreover (Ou et al., 2019), assert that service environment which relates to ITDA has a direct impact on tourist engagement. Accordingly, ITDA may have a relationship with tourist engagement. However, research on the ITDA-tourist engagement relationship remains limited previously (Abror et al., 2019; Ainin et al., 2020). Hence, this research posits a hypothesis that:

**H2:** Islamic tourism destination attributes (ITDA) has a positive impact on tourist engagement.

One of the Muslim tourist loyalty antecedents is the tourist halal experience (Suhartanto et al., 2021). Suhartanto et al. (2020) have investigated the link between Halal experience on Islamic tourism attributes and tourist loyalty through experience quality as a mediator. Halal experience relates to experience on ITDA. Shafaei (2017) argues that involvement is the antecedent of loyalty. Involvement relates to the tourist experience. Battour et al. (2020) have asserted that the perception of Halal tourism products and services has a significant impact on word of mouth (WOM). WOM is closely related to loyalty. Even though only limited studies have examined the direct impact of ITDA on loyalty, this study highlights that ITDA may have a direct relationship with tourist loyalty. Therefore, this study proposes the hypothesis that:

**H3:** Islamic tourism destination attributes (ITDA) has a positive impact on tourist loyalty.

### **2.4. Service quality, tourist engagement, and value co-creation**

Some of the important things that destination marketers must pay attention to are the quality of service that leads to the attachment and relationship of tourists with Muslim-friendly destination service providers (Ratnasari et al., 2020). According to Lee et al. (2019), channel-integrated quality significantly leads to tourist engagement. Hapsari et al. (2017) argue that service quality affected tourist engagement through perceived value as a mediator. Lee et al. (2019) also highlight that service quality relates to tourist engagement. When the tourists perceived better quality of service from the tourist destination, it will affect their willingness to engage with the destination.

Therefore, this study argues that quality of service is an influential factor in tourist engagement. Thus, it proposes a hypothesis that:

**H4:** Tourist service quality has a positive impact on tourist engagement.

Tuan et al. (2019) highlighted the significant impact of service performance on tourist value co-creation. They investigated this relationship in the context of business-to-business products. Al-Ansi and Han (2019) argued that destination performance relates to service quality. Lin et al. (2017) examined the role of residents' perceived impact on value co-creation in the tourism sector. They argued that when people perceived the positive impact of tourism activities, they will value co-creation. Hence, perceived service quality may have an impact on the tourist's willingness to do value co-creation. Therefore, this study proposes a hypothesis that:

**H5:** Tourist service quality has a positive impact on tourist value co-creation.

According to Rather (2021a), tourist engagement will lead to their value co-creation in the pandemic COVID-19 situation. Value co-creation refers to joint efforts between company and customer to create a better value and experience in using a product or service (Liu & Jo, 2020). Moreover, Nadeem et al. (2021) asserted that tourist engagement will lead to tourist value co-creation through satisfaction as a mediator. Yen et al. (2020) highlight the mediating role of tourist engagement in the relationship between innovativeness and tourist value co-creation. On the other hand, Assiouras et al. (2019) have asserted that value co-creation is an antecedent of tourist engagement. Therefore, the debate on this relationship is still open. The researchers argued that tourist engagement is a more plausible antecedent of value co-creation. When the tourists are highly engaged with the tourist destination, they possibly do the co-creation activities. Thus, this study hypothesizes that:

**H6:** Tourist engagement has a positive impact on tourist value co-creation.

### **2.5. Tourist engagement, value co-creation, and tourist loyalty**

Tourist engagement may have a relationship with tourist loyalty. The tourist loyalty concept relates to other theories such as social exchange theory (Zaman & Aktan, 2021) and customer value theory (Gursoy et al., 2017). Social exchange theory refers to the norm of reciprocity between provider and client (Soares & Mosquera, 2019). Engagement is one implementation of social exchange theory where the customers will engage with the product or company when they received good value from the company. Engagement may lead to behavior in the future such as repurchase intention. According to Nadeem et al. (2021), tourist engagement will significantly influence tourist loyalty to brands on social networking sites. Harrigan et al. (2017) also found that tourist engagement is an influencing factor of behavior intention to loyalty. Ahn and Back (2018) also argued that tourist engagement will lead to behavioral intentions such as loyalty. When the tourists are already engaged with the tourist destination, it will lead to their loyalty toward the destination. For example, they will recommend the destination to other people or plan to revisit it in the future. Therefore, tourist loyalty is potentially affected by tourist engagement. This study proposes a hypothesis that:

**H7:** Tourist engagement has a positive impact on tourist loyalty

Tourist value co-creation also has a relationship with tourist loyalty. According to Meng and Cui (2020), tourist value co-creation is a significant antecedent of tourist revisit intention in the tourism sector. On the other hand, Nadeem et al. (2021) assert that brand loyalty is an antecedent of tourist value co-creation. Accordingly, value co-creation may lead to tourist loyalty and vice

versa tourist loyalty is a potential influence factor of tourist value co-creation. Moreover, Cossío-Silva et al. (2016) have asserted that value co-creation will lead to tourist loyalty. According to customer value concept, value co-creation will affect customer loyalty toward a product (Tzavlopoulos et al., 2019). Therefore, debate on this relationship is still open. This study argues that value co-creation is more possible to be the influence factor of tourist loyalty. Thus, from the above discussion, this study hypothesizes that:

**H8:** Tourist value co-creation has a positive impact on tourist loyalty.

### **2.6. Service quality, tourist engagement, religiosity, and value co-creation**

Religiosity is the value and attitude of people in conducting activities that relate to their religious beliefs (Abror et al., 2021; Rahayu et al., 2020; Zamani-Farahani & Musa, 2012). Based on the teachings of Islam, a Muslim must prioritize needs over wants. Islam also regulates spending his wealth, such as not being extravagant or stingy, not excessive, and do not forget to maintain a balance between the fulfillment of worldly needs and hereafter. Thus, based on the principles and ethics of consumption and expenditure of assets in Islam, it is hoped that the higher the level of religious knowledge, the more likely it is A Muslim consumer will adjust his attitude and behavior by obeying the teachings of God (Ratnasari et al., 2022). Religiosity relates to service quality (Abror et al., 2022; Khan et al., 2020; Zamani-Farahani & Musa, 2012). Furthermore, religiosity also relates to loyalty (Rahayu et al., 2020; Suhartanto et al., 2020). Meanwhile, tourist value co-creation relates to tourist loyalty. Religiosity might moderate the relationship between service quality and value co-creation. Tourists with high religiosity will have different standards of service quality because they have knowledge and attitude toward a tourism based on their religious beliefs. Therefore, it might strengthen or weaken this relationship. Even though none of the previous studies has yet directly addressed this moderating effect, this study proposes a hypothesis that:

**H9:** Religiosity moderates the service quality-value co-creation relationship.

Religion and religiosity have an impact on consumer behavior because now there is an increasing trend when people start to see that the key to the success of a business is when it touches the spiritual aspect. Customers with high religiosity will prefer high-quality products and customers who have a high level of religiosity will form different characteristics and shopping behavior (Ratnasari et al., 2020). Religiosity can be a moderator between the quality of e-service and e-trust, rather than having a relationship directly with commitment or trust. Referring to previous research, this study also uses the religiosity variable as a moderator. Religiosity might also relate to tourist engagement (Abror et al., 2021). People with high religiosity might have a strong engagement with a product or service which is suitable for their religiosity. Whilst, engagement relates to value co-creation (Liu & Jo, 2020). The relationship between tourist engagement and tourist value co-creation is possibly affected by tourist religiosity. When the tourists' religiosity supports their engagement, it might have an impact on their value co-creation behavior. Hence, religiosity may strengthen or weaken the relationship between tourist engagement and tourist value co-creation. This study proposes a hypothesis that:

**H10:** Religiosity moderates the tourist engagement-value co-creation relationship.

## **3. Method**

### **3.1. Population, sample sampling method, and data collection procedures**

The population of this study was all Muslim tourists who have visited tourist destinations in West Sumatra. West Sumatra has been chosen as the study site because it is one of the favorite Halal tourism destinations and one of the best Halal tourism destinations according to the Global Muslim Travel Index (GMTI) 2019 from Mastercard-Crescent Rating Agency (Fardah, 2019). This data

collection had been conducted in four months (March- June 2021) and received 450 responses. It used a purposive sampling method with some criteria including, Muslim tourists who have visited West Sumatra in the last two years and used hotel facilities during their visit. The number of samples has been calculated based on Hair et al. (2010) who asserted that the sample size is calculated based on the rule 10 times the number of variables or items. This research has 6 variables with 33 items; hence, the number of samples has met the criteria. The questionnaires have been translated using the back-translation method from *Bahasa* Indonesia to English and vice versa. It used a five-point Likert scale from strongly disagree to strongly agree. The questionnaires have been distributed using two ways including drop and collect in the tourist destinations in West Sumatra and online surveys on social network sites, such as Facebook, Instagram, and What apps group. The data collection has been done in two stages including a pilot test with 30 respondents and primary data collection. The pilot data has been analyzed for the validity and reliability of the measurement items.

### 3.2. Measurement

The measurement of variables has been adopted from previous research. Measurement Items for ITDA have been adopted from Battour et al. (2014) which are divided into four dimensions including Islamic facility, halalness, general Islamic morality, and alcohol and gambling free. Tourist engagement measurement has been adopted from Hapsari et al. (2017) where it has four measurement items, where it has four measurement items, among which are “I am engaged with this tourism site” and “I enjoy in interacting with other visitors”. Eid and El-Gohary (2015) measurement items have been used as the source of Islamic Religiosity, among which are “Religion is very important for my life” and “Islam supports me to get a better life”. Service quality measurement items have been adopted from Hapsari et al. (2017), among which are “Tourist destination staff deliver superior services” and “Overall, the facilities in the tourist destination are excellent”. This measurement a bit different with Bhattacharya et al. (2023) who developed the measurement based on Parasuraman study. The loyalty variable has been measured using three items of attitudinal loyalty from Al-Ansi and Han (2019), among which are “I will visit this tourist destination again in the future” and “I will recommend this tourist destination to other people”. Finally, this study adopted Ahn et al. (2020) for value co-creation measurements, among which are “I completed all of the expected activities adequately” and “I was polite to the tourist destination staff”.

### 3.3. Data Analysis

The covariance Based Structural Equation Model (CB-SEM) was used to analyze the data. Before the primary analysis, this study used several preliminary tests, for example, normality, heteroscedasticity, and multicollinearity test. For the normality criterion, it used a standard of deviation  $\pm 3$ , it also used the Glejser test for heteroscedasticity and Variance Inflation Factor (VIF)  $< 10$  as the criterion of multicollinearity (Hair et al., 2010). Moreover, this cross-sectional study with a self-rated survey might face common method bias. Therefore, it applied Harman’s Single Factor with Exploratory Factor Analysis (EFA) test in anticipating this problem. The value of the single factor variance extracted should be  $< 40\%$  (Wong et al., 2011). Moreover, this study also employed a full collinearity VIF test  $< 5$  (Suhartanto et al., 2020). Validity and reliability tests have been applied in this study using loading factor ( $> 0.5$ ), Average Variance Extracted (AVE) value ( $> 0.5$ ), Alpha Cronbach’s value ( $> 0.7$ ), discriminant validity, and Composite Reliability (CR) value ( $> 0.7$ ) (Hair et al., 2014).

Furthermore, for the main analysis, this study employed CB-SEM and it is divided into two stages, including measurement model and structural model analysis. It used some goodness of fit criteria for both models. Those criteria were  $CMIN/DF \leq 3$ , GFI, TLI, CFI  $\geq 0.90$ , AGFI  $\geq 0.80$ , and RMSEA  $\leq 0.08$  (Hair et al., 2014).

## 4. Results and discussion

### 4.1. Results

#### 4.1.1. Descriptive of the respondents

Most of the respondents (40%) visited the tourist destinations two times a year. Their monthly expenditure is more than 7.6 million rupiahs (\$600) (80.4%). Based on gender, most of the respondents are females (58%). Moreover, they graduated with a bachelor's degree (56%).

#### 4.1.2. Preliminary test

Some preliminary tests were conducted before the main analysis, including normality, heteroscedasticity, and multicollinearity test. For the normality, this study found that the data is normal because it has the standard deviation value from 0.37 to 0.74 and the values were still in the range  $\pm 3$ . The data were also free from heteroscedasticity problems because the significant value was more than 0.05 based on the Glejser test (Pallant, 2013). Finally, the VIF value of each variable was less than 10 (between 1.08 and 2.69). Hence, after these preliminary tests, this study only used 375 usable responses for the main analysis.

#### 4.1.3. Validity and reliability

Validity and reliability test have been conducted in this study. Table 1 shows that the data are valid based on the loading factor ( $>0.6$ ) (Hair et al., 2014). The data also has good construct validity and reliability based on average variance extracted (AVE) value  $>0.5$ , Cronbach's alpha, and composite reliability  $>0.7$ .

Moreover, Table 2 shows the discriminant validity. The data also have good discriminant validity where the value of the square root of AVE in the diagonal is greater than the correlation values in the column. The common method bias has been applied in this study. It found that the total variance extracted for a single factor is 27.3% ( $<40\%$ ). Accordingly, it has no common method bias (Wong et al., 2011). Moreover, based on a common method of variance using value inflation factor (VIF)  $<5$ , this study also found that the range of VIF values is only between 1.08 dan 2.69 ( $<5$ ). Accordingly, the data is free from common method bias problems (Rather, 2021b).

#### 4.1.4. Structural Equation Model (SEM)

In the SEM, the data have been analyzed for both measurement and structural model. Table 3 shows the measurement model goodness of fit. All constructs have high goodness of fit because all indices have met the minimum criteria. Moreover, this study also tested the goodness of fit of structural model and found that CMIN/DF = 2.56, CFI = 0.97, TLI = 0.96, GFI = 0.96, AGFI = 0.93 and RMSEA = 0.07. Accordingly, all indices have met the criteria.

Table 4 and Figure 1 have shown the results of hypothesis testing. This study uses the path coefficient to describe the strength of the relationship between constructs. Its significance can be seen in the T test or C.R. (critical ratio) obtained from the bootstrapping or resampling method (Haryono, 2016). Furthermore, Haryono (2016) shows that the t-statistic value  $\geq 1.96$  or the p-value  $\leq 0.05$  means that  $H_0$  is rejected (the research hypothesis is accepted). This study shows that H1, H2, H3, H4, H5, H6, H7, H8, and H10 are accepted with a C.R.  $\geq 1.96$ . However, H9 in this study was not accepted because it has a C.R. of  $-2.30 \leq 1.96$ . These interaction effects can be shown in Figures 2 and 3.

## 5. Discussion

The ITDA significantly and positively influences service quality (H1). This conclusion is based on the value of C.R.  $6.17 \geq 1.96$ . This means that service quality can be improved through Islamic Tourism Destination Attributes (ITDA). This finding is in line with some previous studies such as Battour et al. (2020) and Shafaei (2017). Accordingly, when the tourists have perceived good ITDA it will lead to their overall perceived service quality. Hence, ITDA is a significant influence factor on tourists' perceived service quality. The availability of attributes that are the main needs of Muslim tourists,

**Table 1. Loading factor, construct validity and reliability**

<b>Constructs</b>	<b>Items</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Loading</b>	<b>A</b>	<b>CR</b>	<b>AVE</b>	<b>VIF</b>
Islamic Tourism Destination Attributes (Battour et al., 2014)					0.83	0.92	0.55	1.52
	Availability of Qibla (prayer) direction in the hotel room	3.87	0.89	0.85				
	Availability of prayer mat (Sajadah) in the hotel room	3.50	0.81	0.69				
Islamic Facility	Provision of a copy of the Holy Qur'an in each hotel room	4.06	0.84	0.64				
	Availability of Halal food at tourism destination.	4.51	0.67	0.65				
	Halal kitchen is available in hotels and restaurants	4.07	0.81	0.64				
Halalness	Banning of prostitution in the tourism sites	4.18	0.86	0.76				
	Banning of kissing or sex activities in public places	4.35	0.82	0.67				
	Banning/censorship of adult scenes in movies shown on hotel TV	4.17	0.88	0.60				
Free	Banning of alcoholic drinks at public places	4.31	0.85	0.89				
	Prohibition of gambling activities at public places	4.30	0.81	0.94				
					0.86	0.86	0.61	2.50
Tourist Engagement (Hapsari et al., 2017)								
	It is difficult to detach myself when interacting with this tourism site	3.78	0.88	0.74				

(Continued)

Table 1. (Continued)									
Constructs	Items	Mean	Std. Dev	Loading	A	CR	AVE	VIF	
	I am engaged with this tourism site	4.11	0.70	0.78					
	I enjoy in interacting with other visitors	4.07	0.73	0.77					
	In general, I enjoy in exchanging ideas with other visitors	3.99	0.78	0.82					
Religiosity (Eid & El-Gohary, 2015)					0.89	0.90	0.59	1.08	
	Religion is very important for my life	4.88	0.35	0.65					
	Islam supports me to get a better life	4.88	0.35	0.85					
	The <i>Dua'</i> (supplication) will help me	4.91	0.31	0.82					
	The Prophet Muhammad (peace-be-upon-him) is my idol.	4.91	0.30	0.81					
	Performing Hajj is one of my main priorities	4.81	0.44	0.66					
	I believe that Allah (God) helps me	4.92	0.29	0.81					
Servqual (Hapsari et al., 2017)					0.84	0.85	0.60	1.67	
	Tourist destination staff deliver superior services	3.66	0.98	0.60					
	Overall, the facilities in the tourist destination are excellent	3.79	0.92	0.85					
	The tourist destination has convenient reservation and ticketing systems	3.84	0.82	0.83					
	Tourist destination offers an excellent security system	3.66	0.89	0.80					

(Continued)

**Table 1. (Continued)**

Constructs	Items	Mean	Std. Dev	Loading	A	CR	AVE	VIF
Loyalty (Al-Ansi & Han, 2019))					0.78	0.82	0.60	2.02
	I will visit this tourist destination again in the future	3.66	0.82	0.75				
	I will recommend this tourist destination to other people	4.02	0.75	0.62				
Value Co-creation (Ahn et al., 2020)	I will tell other people about my positive experiences in this tourist destination	4.00	0.76	0.63				
					0.86	0.87	0.52	2.69
	I completed all of the expected activities adequately.	4.04	0.75	0.67				
	I was polite to the tourist destination staff	3.88	0.80	0.71				
	I performed all the tasks that are required.	3.83	0.80	0.80				
	I was friendly to the tourist destination staff.	3.86	0.73	0.78				
	I am pleased to help other tourists when it is needed.	3.94	0.79	0.60				
	I will help other tourists when they got a problem.	3.80	0.78	0.74				

**Table 2. Discriminant validity assessment**

Construct	1	2	3	4	5	6
Engagement	<b>0.78</b>					
Islamic Tourism Destination Attributes	0.50	<b>0.74</b>				
Religiosity	0.43	0.40	<b>0.77</b>			
Service quality	0.61	0.57	0.29	<b>0.78</b>		
Loyalty	0.64	0.43	0.34	0.46	<b>0.78</b>	
Value Co-creation	0.71	0.41	0.38	0.49	0.77	<b>0.72</b>

Note: diagonal (**in bold**) is the square root of AVE; for the discriminant validity, the square root of AVE should be higher than off-diagonal elements.

**Table 3. The measurement model goodness of fit**

Constructs	No. of Items	Goodness of Fit Indices					
		CMIN/DF	CFI	TLI	GFI	AGFI	RMSEA
Second Order of Islamic Tourism Destination Attributes	10	1.44	0.99	0.95	0.98	0.96	0.03
All constructs	33	1.63	0.96	0.95	0.90	0.87	0.04
Suggested fit indices		≤5	≥0.90	≥0.90	≥0.90	≥0.80	≤0.08

**Table 4. Testing of hypothesis**

	Paths/Hypothesis	Standardized Path Coefficient ( $\beta$ )	SE	C.R	Sig
H1	ITDA → Servqual	.63	0.28	6.17	***
H2	ITDA → Engage	.30	0.21	3.88	***
H3	ITDA → Loyal	.13	0.13	2.74	***
H4	Servqual → Engage	.33	0.06	5.54	***
H5	Servqual → Value Co	.18	0.04	4.18	***
H6	Engage → Value Co	.61	0.04	14.61	***
H7	Engage → Loyalty	.14	0.05	2.84	***
H8	Value Co → Loyal	.61	0.05	13.19	***
H9	ServqualXRel → Value Co	-.12	0.05	-2.30	**
H10	EngageXRel → Value Co	.14	0.04	14.61	***

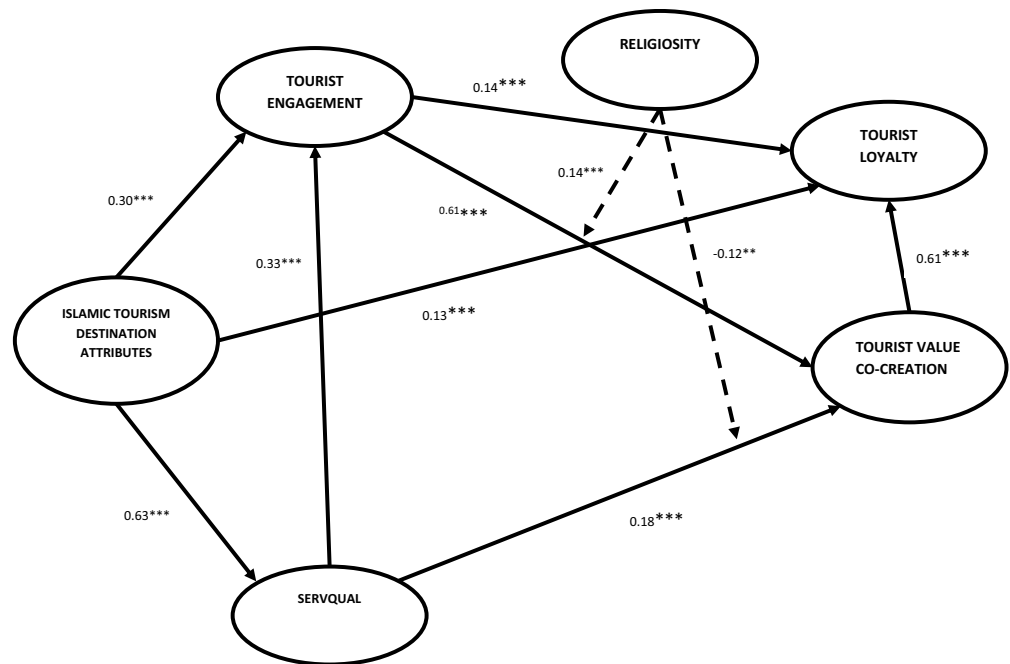
Note: \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; S.E = Standard Error; CR= Critical Ratio; Sig = Significance probability.

such as halal food, places of worship, sharia tourist destinations, Islamic culture, environmental cleanliness, security, and the friendliness of the local community, make tourists feel comfortable and happy. In addition, these attributes build positive qualities in Muslim tourists (Battour et al., 2022)

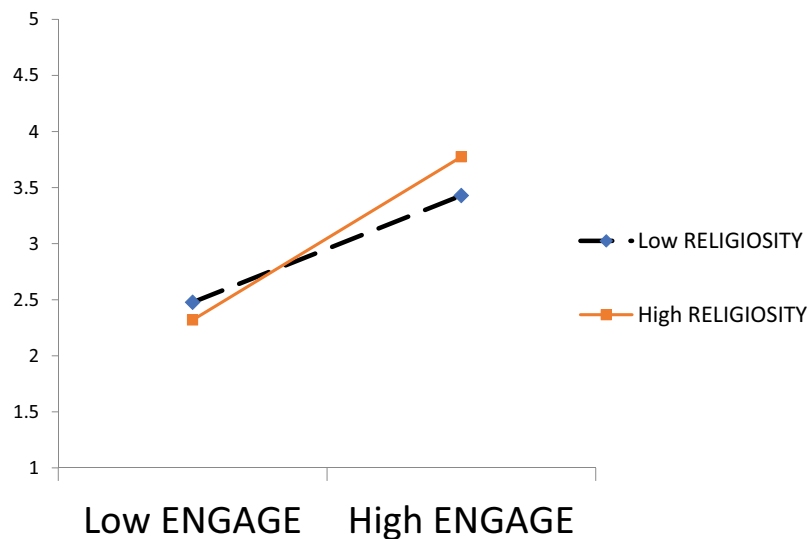
The results of hypothesis testing show that Islamic Tourism Destination Attributes (ITDA) have a significant and positive effect on tourist engagement (H2). This conclusion is based on the value of C.R.  $3.88 \geq 1.96$ . This means that tourist engagement can be improved through Islamic Tourism

**Figure 1. Conceptual model of the study.**

Note: \*\*\*  $p < 0.01$ ; \*\*  $p < 0.0$



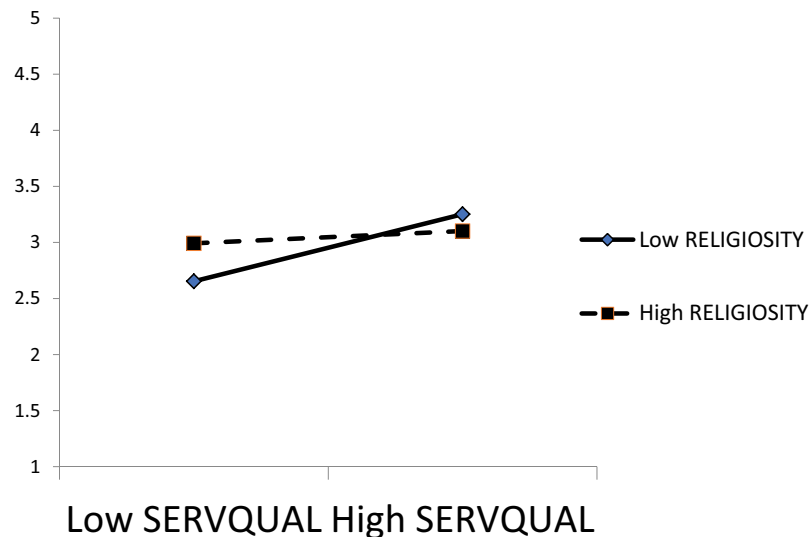
**Figure 2. Interaction effect between tourist engagement, value co-creation and religiosity.**



Destination Attributes (ITDA). This finding supports some prior study's findings such as Abror et al. (2021) and Touni et al. (2019). When the tourists perceived a higher value of ITDA, they will be more engaged with the tourism destination. Muslim tourists will have better Muslim-friendly tourism attribute standards; therefore, it is said that tourists will perceive Muslim-friendly tourism attributes, which will have an impact on tourist involvement (Abror et al., 2021)

The results of hypothesis testing show that Islamic Tourism Destination Attributes (ITDA) have a significant and positive effect on tourist loyalty (H3). This conclusion is based on the value of C.R.  $2.74 \geq 1.96$ . This means that tourist loyalty can be improved through Islamic Tourism Destination Attributes (ITDA). This finding supports research finding from Suhartanto et al. (2021) that asserted Halal experience will lead to tourist loyalty through experience quality as the mediator. Although no study has addressed the direct ITDA-tourist loyalty link yet, this study has highlighted

**Figure 3. Interaction effect between service quality, value co-creation and religiosity.**



a significant relationship between ITDA and tourist loyalty. When the tourists have got better experiences with the ITDA, they will be more loyal to the tourist destination in the future and would recommend the destination to other people.

The results of hypothesis testing show that tourist service quality have a significant and positive effect on tourist engagement (H4). This conclusion is based on the value of C.R.  $5.54 \geq 1.96$ . This means that tourist engagement can be improved through tourist service quality. This finding supports the finding of Hapsari et al. (2017) who assert that quality of service will directly affect tourist engagement. When the tourists have perceived good service quality, they will engage with the tourist destination. In the hospitality sector, employee engagement has been shown to have a significant positive effect on service quality. Employees who immerse themselves in a pleasant work atmosphere will provide better service quality (Wang & Tseng, 2019). So, when applied to Muslim tourists, if tourists feel a pleasant atmosphere and good service, they will have involvement with the destination.

The results of hypothesis testing show that tourist service quality have a significant and positive effect on value co-creation (H5). This conclusion is based on the value of C.R.  $4.18 \geq 1.96$ . This means that value co-creation can be improved through tourist service quality. It is consistent with Tuan et al. (2019) who found a significant impact of perceived service performance on tourist value co-creation. Accordingly, when the tourists have perceived good service quality, presumably, they want to help the tourist destination management in creating more value of the services such as giving a fruitful comment to increase the quality of tourism destination services.

This study also highlights a significant impact of tourist engagement on tourist value co-creation (H6). This conclusion is based on the value of C.R.  $14.61 \geq 1.96$ . This means that value co-creation can be improved through tourist engagement. This finding is similar to Rather (2021a) who highlights a significant impact of tourist engagement on value co-creation. However, this finding contradicts Assiouras et al. (2019) who assert that value co-creation is an antecedent of tourist engagement. Accordingly, this study has contributed to explaining the direction between tourist engagement and value co-creation. Therefore, when a tourist has engaged with the tourist destination, he/she has a high possibility to do value co-creation such as give his/her opinion to increase the quality of tourist destination services.

This study pointed out that tourist engagement is a significant and positive effect on tourist loyalty (H7). This conclusion is based on the value of C.R.  $2.84 \geq 1.96$ . This means that tourist loyalty can be

improved through tourist engagement. It is consistent with previous studies' findings (Abror et al., 2019; Ahn & Back, 2018). Tourists who have high engagement with the tourist destination will have better loyalty. Accordingly, they will recommend or revisit the tourist destination in the future. Tourists are considered highly engaged if they try to participate in activities that bring them into relationships or cause them to interact (So et al., 2014). Highly engaged tourists also tend to be more loyal to the destination and thus more likely to revisit it (So et al., 2016). Rasoolimanesh et al. (2021) compared the influence of enthusiasm, attention, absorption, interaction, and identification as dimensions of tourist attachment to loyalty. The results show that attention as an engagement dimension indicates tourists are highly focused and concentrating on their goals. Therefore, it is important to attract and maintain the attention of tourists on a regular basis to generate loyalty. The level of enthusiasm and high absorption can generate a level of tourist loyalty.

Moreover, this study also highlighted a significant relationship between value co-creation and tourist loyalty (H8). This conclusion is based on the value of C.R.  $13.19 \geq 1.96$ . This means that tourist loyalty can be improved through value co-creation. It is similar to Meng and Cui (2020) who found that value co-creation leads to tourist revisit intention which is closely related to tourist loyalty. However, this finding is contrary to Nadeem et al. (2021) who found that loyalty is an antecedent of value co-creation. Therefore, this finding has contributed to explaining the relationship between value co-creation and tourist loyalty.

This study has examined the moderating role of religiosity. It was found that religiosity has no moderating effect on the relationship between service quality and co-creation value (H9). This conclusion is based on the value of C.R.  $-2.30 \leq 1.96$ . Services often create memorable experiences and events for customers (Korkman, 2006). An improved customer experience can increase their satisfaction and engagement and thereby encourage the creation of shared value between service companies and consumers (Johnston & Kong, 2011; Naumann et al., 2017). However, service quality can also have a negative effect. Claffey and Brady suggest that negative emotions stemming from bad experiences during service may have a negative effect on participation in value-creation activities. Religiosity may have a relationship with halal tourism. Based on El-Gohary (2016), halal tourism, or Muslim-friendly tourism, has several main requirements, and not all Muslims have the same understanding of these requirements. It will depend on their compliance with Islamic rules. Religiosity is a decision factor (Heiman et al., 2019). Thus, this study examines the mediating role of religiosity and gets the result that religiosity has no moderating effect on the relationship between service quality and co-creation value. That means, even though tourists comply with Islamic rules, if they have a bad experience during the service, it will have a negative effect on their participation in value-creation activities.

This research also found a significant moderating effect of religiosity in strengthening the relationship between tourist engagement and value co-creation (H10). This conclusion is based on the value of C.R.  $14.61 \geq 1.96$ . This finding has expanded previous studies such as Suhartanto et al. (2020) who investigated the link between religiosity and tourist loyalty. This study highlights the moderating role of religiosity in strengthening the tourist engagement-value co-creation relationship. Therefore, tourists with higher religiosity will have a stronger perception of the link between their engagement and their willingness to do value co-creation activities.

## 6. Conclusion

This study has found antecedents of tourist loyalty and revealed a relationship between Muslim-friendly tourism, service quality, tourist engagement, shared value creation, and destination loyalty. In addition, it also highlights the moderating effect of religiosity on tourist engagement, service quality, and tourist loyalty relationships. The results showed that all the relationships between variables had a significant impact, so all hypotheses were accepted. In addition, it also confirms the theoretical contributions as well as managerial implications. The following are theoretical contributions, managerial implications, and research limitations:

### 6.1. Theoretical contributions

Overall, this study contributes to theoretical development as well as to practical implications. For the theoretical contributions, this study firstly contributes to explaining the antecedent of tourist loyalty for Halal tourism or Muslim-friendly tourism context. As far as the authors' knowledge, this relationship between ITDA and loyalty is still neglected in the previous studies (Suhartanto et al., 2021). Secondly, this study has contributed to explaining the direction of the link between tourist engagement and value co-creation which was still in debate previously (Assiouras et al., 2019; Rather, 2021a). Whilst, engagement is important to develop a willingness of the customer to be involved or contribute to the value creation of the product. This study supports the previous researchers who argue that engagement is an antecedent of value co-creation (Nadeem et al., 2021). Thirdly, this study has contributed to the debate on the relationship between tourist loyalty and tourist value co-creation (Cossío-Silva et al., 2016; Nadeem et al., 2021). It supports the previous findings that value co-creation has a significant impact on tourist destination loyalty. Finally, this study also contributes to revealing the roles of religiosity as a moderation variable in the service quality, tourist engagement, and value co-creation relationships which are neglected previously (Suhartanto et al., 2020). Religiosity will weaken the relationship between service quality and value co-creation. However, it will strengthen the relationship between tourist engagement and value co-creation.

### 6.2. Managerial implications

This study also reveals some managerial implications. First, this study found that ITDA leads to tourist destination loyalty. Therefore, the management of tourist destinations has provided better ITDA such as high-quality Islamic facilities, Halalness of food and kitchen, and also the prohibition of alcohol and gambling in the tourist destination (Dabphet, 2021). For example, the management should provide prayer mat and qiblah direction in the hotel room, toilet and kitchen with no pork food product etc. Second, the findings are also important to the decision-makers such as local government. The findings might become an input to provide a better Halal or Muslim-friendly tourism product and services. The government should provide a clear rule for Halal friendly tourism and make sure that all facilities and activities have followed the Islamic law. Therefore, this action will affect the number of Muslim tourists who want to visit. Second, when the management of tourist destinations wants to increase the willingness of tourists to be involved in value co-creation programs, they have to pay attention to tourist engagement by providing some programs that allow the tourist to participate in delivering the services

### 6.3. Limitations and future research

Furthermore, this study also faces some limitations. First, this is a cross-sectional study. The cross-sectional study has a limitation for generalization of the results because it is only one snapshot of study. Therefore, it will need a more generalizable type of study such as longitudinal research which is conducted in several times and it will provide a consistency or inconsistency in the study time frame. Second, this study only focused on the Indonesian context. It might not be generalized to other countries because of the culture differentiation. For future research, it might be expanded to other Muslim-majority countries such as Malaysia and Middle East countries. Hence, it might have a more comprehensive result for generalization. Finally, some other factors such as perceived risk, customer self-efficacy, and psychological safety in visiting the tourist destination might also influence tourist loyalty (Sofyan et al., 2021). These factors are still missing in this study. Hence, future research might address these variables and it will give a more comprehensive results and a better picture of the antecedents of tourist loyalty.

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