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## SHARIA COMPLIANCE SERVICE QUALITY METRICS FOR E-COMMERCE: AN EXPLORATORY ANALYSIS

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**ABSTRACT.** Despite the rising call for Sharia compliance in e-commerce systems, yet there are no established service quality metrics that would ensure Muslim consumer trust, use and users satisfaction. Therefore, we prudently proffered Sharia compliance service quality metrics for e-commerce that would foster e-commerce use, user satisfaction and net benefits for the over 1.8 billion Muslims globally. By deducing extant e-commerce service quality metrics from literature and harnessing the opinion of Sharia compliance scholars/experts, an integrative Sharia compliance service quality metrics for e-commerce are proffered. Fundamentally, Sharia compliance assurance of e-commerce systems is found to be an essential service quality metric that will ensure Muslim consumer trust, use, user satisfaction and net benefits from e-commerce. Whereas, conventional e-commerce service quality best practices that are aimed at enhancing the welfare and devoid of Sharia violations are also deemed important service quality metrics for Sharia compliance. Because, providing pre-sale, during the sale and post-sale support services are vital in ensuring the Sharia obligation of eliminating uncertainties, risk, losses, displeasure and discord emanating from e-commerce.

Keywords: Sharia compliance, e-commerce, service quality, Sharia compliance assurance, Muslim consumers

### INTRODUCTION

The concerns of Muslim consumers in e-commerce is not isolated to Sharia compliance alone but also e-commerce quality issues that culminate into the lack of trust, deterring intention to use and poor user satisfaction (Abdulghani and Suhaimi 2014; Siala et al. 2013, Aliyu et al. 2012). In a study on factors that influence Muslim consumer's intention to patronise e-commerce, Suhaimi et al. (2013) found a significant influence of web quality features. But despite the available empirical fact that, e-commerce success depends on information quality, system quality and service quality to warrant trust, use, user satisfaction and net benefits (DeLone & McLean, 2003; Stockdale & Borovicka 2006), there are no existing studies that highlight these factors from a Sharia compliance perspective. This includes the e-commerce service quality dimension which is of interest to this study due to the significant impact of effective customer support services to e-commerce use and user satisfaction.

Even though Muslim consumers are inclined to patronise only Sharia compliant products/services and platforms, there are currently no stipulated Sharia compliance service quali-

ty metrics for e-commerce that will ensure Muslim consumers use, user satisfaction and net benefits. Therefore, due to consumers increasing demand for support and effective service delivery in the e-commerce environment (Siala 2013; Sharma & Lijuan 2015), we deduced extant service quality metrics from literature and harnessed Sharia compliance scholars/experts opinion in proffering an integrative Sharia compliance service quality metrics for e-commerce. Therefore, we parsimoniously proffer Sharia compliance assurance, responsiveness, empathy, follow-up services and provision of effective online support capabilities as the Sharia compliance service quality metrics that can foster e-commerce use, user satisfaction and net benefits for the over 1.8 billion Muslims globally. Nonetheless, we heed to DeLone & McLean (2003) advocacy for utilising or modifying existing and validated metrics from the cumulative tradition before proffering new ones where necessary.

The rest of this paper is organised as follows: conceptual background which comprises of Sharia compliance of e-commerce systems and conventional e-commerce service quality metrics. It is followed by the research methodology for this paper. Subsequently, the findings and discussions are articulated, where the Sharia compliance e-commerce quality metrics are presented. Finally, conclusion, limitations and future research directions are offered.

## CONCEPTUAL BACKGROUND

### Sharia Compliance of E-commerce Systems

The issue of Sharia compliance in e-commerce systems is derived from the Islamic obligation upon all Muslims to adhere to Sharia teachings and way of life. Based on the maqasid Sharia (fundamental objectives of Sharia) which is aimed at enhancing the maslaha (welfare) of the society, Imam Al-Ghazali explained maslaha as the preservation of religion, life, mind, progeny and wealth. Therefore, everything that leads to the preservation of these five foundations is considered maslaha, and everything that leads to their disruption is mafsadah (evil), and its removal is maslaha (Jalil 2011). Hence, maslaha is the guiding Sharia compliance principle for motive, ethics, wisdom and practice of e-commerce systems. The Sharia doctrines are derived from the holy Quran, the Sunnah (practices of the holy prophet), Qiyas (deductive analogy from the Quran and Sunnah) and Ijma (consensus of scholars) (Zainul 2004).

But despite e-commerce been a recent medium for buying and selling of goods and services, Sharia accords it with a similar inference as for the traditional commerce (Ribadu and WanAbRahman 2016; Muhammad et al. 2013a). Therefore, Sharia permits and promote innovations such as e-commerce, so long as they fulfil all required obligations. Furthermore, these involves conformity to the principles of Islamic law of contract form (offer and acceptance), contracting parties (buyer and seller) and the subject matter (object and price) and to be devoid of any fundamentally prohibited element of riba (usury), gharar (uncertainty), haram (forbidden) and maysir (gambling) (Amboala et al. 2015; Muhammad et al. 2013b; Zainul 2004). WanAbRahman & Ribadu (2016) highlighted them as prerequisites for Sharia compliance, trust and worldwide acceptance of e-commerce. The Sharia requirements are primarily aimed at obedience to Allah and ensuring mutual good among businesses, consumers and the society at large.

There have been a couple of studies that evaluated both system and information quality of some Islamic websites (Mahmud et al. 2010; Aliyu et al. 2010; Mehad et al. 2010), although the websites are mainly based on religious advocacy rather than commercial transactions. But this further signifies the need for attention on service quality, especially in the e-commerce context where effective support services are necessary to avoid customer discontent. Importantly, Mehad et al. (2010) stressed the need to preserve the cultural characteristics of Muslim society, rather than allowing online technology norms and limitations to dictate the way Muslims behave and conduct transactions online. This advocacy tends to be very potent

in trying to understand the concept and need for Sharia compliance quality metrics when e-commerce is put into perspective. Even though their study is not contextually aligned to e-commerce but it signifies the importance of religious obedience to online Muslim users. Therefore, a need to further explore the Sharia compliance requirements for e-commerce quality metrics.

### Conventional E-commerce Service Quality Metrics

The service quality of an e-commerce system is an important dimension of e-commerce success, especially as customers increasingly demand support from their web providers (Molla & Licker 2001; DeLone and McLean 2003). It can be perceived as the gap between consumer expectations and the actual service performance (Huang et al. 2015). It encompasses the multifaceted support and guidance delivered to customers in pre-sale, during sale and post-sale activities that contribute to customer satisfaction. Because the perception of service quality is formed not just during the purchasing process (which ends when payment is made), but transcends to product delivery and the recovery process in case of delivery failure or a need for product return. Hence, a good service quality is a critical support requirement in the e-commerce environment because the lack of it will translate to a loss of customers and sales. It is, therefore, imperative to highlight e-commerce service quality metrics that deliver desired customer support and guidance. Some of the widely adopted and empirically validated service quality metrics are responsiveness, assurance, empathy, following-up service and the effectiveness of on-line support capabilities of an e-commerce system (DeLone and McLean 2003; Wang 2008).

The significance of these service quality measures in an e-commerce environment cannot be overemphasised. Sharma & Lijuan (2015) stressed that e-commerce service quality can be enhanced by ensuring user friendliness, customer sensitivity, personalised services, quick response to complaints and upholding sufficient security levels in communication and data protection. Stockdale & Borovicka (2006) empirically evaluated service quality of e-commerce sites using (1) Perception of service quality metrics such as helpdesk, hotlines, service centres, FAQs (frequently asked questions), printer friendly files, resource links and sitemaps. (2) Trust building mechanisms metrics of privacy statements, security attributes, the credibility that website has authoritative sources of information, regard for copyright evident, evidence of acceptable advertising and using services that will engender trust. (3) Projection of empathy through evidence of brand building, use of a recognisable logo, use of standard firm colour scheme, use of language e.g. we/ you and the site is enjoyable to use. (4) Follow-up services such as email are requested from a visitor on purchase, order tracking, order status and confirmatory email. (5) Customization offers for special requirements.

**Table 1. Conventional E-commerce Service Quality Metrics**

Service Quality Measures	Sources
Responsiveness	DeLone & McLean 2003; Wang 2008; Brown & Jayakody 2008; Huang et al. 2015
Assurance	DeLone & McLean 2003; Wang 2008; Huang et al. 2015
Empathy	DeLone & McLean 2003; Wang 2008; Huang et al. 2015
Following-up service	DeLone & McLean 2003; Wang 2008; Brown & Jayakody 2008
Effectiveness of online support capabilities	Molla & Licker 2001; DeLone & McLean 2003; Wang 2008; Brown & Jayakody 2008

Bernardo et al. (2012) stressed the positive and significant effect of e-commerce service quality on perceived value and consequently, loyalty. They highlighted that e-commerce service managers must ensure availability of stock are reliable, deliveries are actualized within a

suitable time, offerings are genuine, services to individual customers are available and effective, and the ability to amend or cancel transactions are allowed to attract and retain customers. There are numerous e-commerce service quality measures used by different studies in IS and marketing literature, however, they are mostly similar but bearing varying nomenclature. Therefore, the need to identify extant and validated measures rather than developing new ones unless where it becomes necessary due to context. Therefore, we identified the dimensions of e-commerce service quality metrics depicted in Table 1 to comprehensively suffice in service quality evaluation.

## RESEARCH METHODOLOGY

To reliably and sufficiently harness the Sharia compliance service quality metrics for e-commerce systems, we conducted an exploratory study using a qualitative approach. It involved semi-structured interviews with eight participants (P1-P8) who are scholars/experts on Sharia compliance transactions. The participants are all academics with affiliations to universities in Malaysia and beyond. Furthermore, they serve as Sharia compliance advisors for several national and international institutions which include financial services and regulatory bodies. Employing their wealth of knowledge and experience is aimed at gaining an in-depth understanding of the phenomenon and to generate new theoretical insights on Sharia compliance e-commerce service quality metrics (Venkatesh et al., 2013; Molla et al., 2015). Therefore, interviews were audio recorded and transcribed to enable credible analysis of participant's opinion of service quality measures that will ensure Sharia compliance of e-commerce systems.

A deductive approach to the content analysis of data was carried out using computer-aided qualitative data analysis software, NVivo 11. The concepts of service quality metrics were identified and organised into codes and consequently, codes were categorised based on similarities, differences and hierarchy. This approach was deemed necessary to adopting existing and validated e-commerce success measures to enable replication and consistency in research findings. However, in the circumstance where such extant measures cannot suffice, new ones can be developed and validated. Therefore, Sharia compliance service quality metrics deduced from Scholars/experts that proffered similar meaning and implications with conventional e-commerce service quality metrics were consolidated and contextually defined. It formed the Sharia compliance e-commerce service quality metrics aimed to foster Muslim consumer trust, use, user satisfaction and net benefits.

## FINDINGS AND DISCUSSIONS

Participants were unanimous in endorsing that Sharia indeed encourages e-commerce, so long as the motive is to enhance maslaha (welfare) and mutual benefit of parties. It must also adhere to the requirements of Islamic law of contract which essentially is aimed at promoting the maslaha and thwarting away harm, discord and evil. This involves ensuring that e-commerce is devoid of any fundamentally prohibited element of haram objects, riba and gharar. Therefore, Sharia compliance in e-commerce systems requires superior service quality that can enhance the wellbeing of users. P8 stressed, *"So if you want to make a Sharia compliant platform the first thing is the satisfaction of the customer."* Indeed, the service quality best practices offered by some conventional e-commerce platforms enhances use, user satisfaction and promotes Sharia objectives (P2, P3, P4, P5 & P8). Therefore, adopting best practices and ensuring customers are satisfied by itself can reflect the Sharia compliance of an e-commerce platform. It is necessary to provide customers with detailed and reliable information about products/services and any support service or guidance that will ensure that they conduct successful transactions. However, in the eventuality a customer receives the pur-

chased items and are not satisfied, they should be given khiyar ru'yah which implies they send back the items and get full refunds.

Participants unanimously agreed that extant e-commerce service quality metrics such as responsiveness to customer support needs, empathy, assurances, follow-up services and provision for online support capabilities depicted in Table 1, actually enhances customer welfare which is a Sharia obligation. However, such services must not involve haram products/services and promotions, gharar over products, price or delivery and payment methods involving riba. Although, e-commerce supports capabilities such as assurances, detailed description of subject matter, order tracking, Hotlines and service centers support, customer reviews and feedbacks etc. are acknowledged to help in curbing gharar which Sharia prohibits. Similarly, providing multiple payment options such as the use of debit cards, pay on delivery, online transfers are viable alternatives to riba bearing credit cards. Because *"In the Quran, the abolishing of riba is a necessary but not a sufficient condition, this is the point. You are going to do business and transactions without riba but if you do not replace riba by something else which is better, it wouldn't work"* (P4). However, there is no effective quality measures that can resolve concerns of e-commerce services involving and supporting haram products/services. For example, giving support to users conducting transactions that involves intoxicants, pork, ribawi items (currencies, gold and silver) or mushaf (a full copy of the Qur'an). Despite ribawi items and mushaf are halal but selling them online can engross into haram because of the Sharia conditions governing them. The case of ribawi requires it to be sold on the spot (hand to hand exchange) implying neither payment nor delivery can be deferred. While, the case of Mushaf is also very complex to deal with online because it can only be bought and sold by Muslims, which cannot be guaranteed under existing e-commerce structure. .

With the exception of clearly mentioned issues, e-commerce service quality measures were acknowledged by participants to generally conform and promote Sharia objectives. Even though the motives for providing e-commerce support services might be purely based on the desire to gain a competitive edge and not meant to fulfil Sharia requisites or sacred obligations but participants applauds them as a best practice. Because the outcome of such practices and innovations yields desired Sharia results in reducing uncertainties and enhancing the welfare of users. For example, e-commerce vendors that have good reputation make provision for feedback through reviews and ratings, so that consumers can be guided in making informed decisions. The feedback is also a very important consumer support factor in Sharia. P8 highlights, *"What does feedback reflect in Sharia? In Sharia we consider it as Urf (custom), which is considered as a secondary source of Islamic law."* Therefore, having feedback mechanism through reviews and the ratings can help in guiding consumers to reduce gharar and risk associated with buying an item or patronising an e-commerce platform.

### **Sharia Compliance e-commerce Service Quality Metrics**

Therefore, based on the opinion of Sharia compliance scholars/experts (P1-P8) and extant e-commerce service quality metrics (Table 1), we propose Sharia compliance e-commerce service quality metrics (Table 2). A new metric, Sharia compliance assurance modifies and integrates assurance in Table 1. Furthermore, responsiveness, empathy, follow-up services and the effectiveness of online support capabilities are provided with examples. An emphasis of some of the examples are deemed necessary because they constitute Sharia compliance requirements. Therefore, the Sharia compliance e-commerce service quality metrics in Table 2 will foster Sharia compliance e-commerce trust, use, user satisfaction and net benefits.

**Table 2: Sharia compliance e-commerce service quality metrics**

Service Quality Metrics	Examples
Sharia compliance assurance*: The ability to inspire Sharia compliance trust and confidence based on evidence.	Sharia compliance certification*, Privacy statements, security attributes, evident regards for Intellectual property, level and type of any advertisement must be ethical*, evidence of brand building and use of recognisable logo
Responsiveness*: The ability to reliably render services.	Quick responsiveness of e-commerce system to customer query's and need*, fast response to orders and ease of cancelling orders.
Empathy*: Indication of having user's best interests at heart.	Positive staff attitude*, do things that are promised such as fulfilling an order*, provide help when users have problems*, variety of distribution methods, real-time update of order information*, fast and reliable delivery*, and khiyar policies* (returns policies).
Following-up service: Offering follow-up service.	After-sale services, email is requested from visitor on purchase order tracking, order status and confirmatory email.
Online support capabilities*: Effectiveness of on-line support capabilities.	Providing answers to FAQ's, order tracking/shipment status, customized site intelligence, hotlines, service centres, relevant search facilities, feedbacks such as reviews and ratings, calculators, currency converters and Sharia compliant payment alternatives*.

**Note:** Metrics and examples with asterisks\* denotes mandatory Sharia compliance e-commerce service quality requirements.

Fundamentally, we modified the assurance metric of conventional e-commerce service to incorporate Sharia compliance dimension and integrate extant assurances. The Sharia compliance assurance is a requisite service quality feature for e-commerce systems from the Sharia perspective. Because Muslims must be certain of the validity and legitimacy of transactions they engage. Similarly, despite having empathy as a service quality metric which provides for acceptable return policies to consumers, we found it compelling to expound the khiyar policies that Sharia stipulate to put it into proper context of e-commerce service quality.

### Sharia Compliance Assurance

The Sharia compliance assurance is deemed the most important metric for e-commerce service quality which also encompasses existing e-commerce assurance models and services aimed at bolstering Muslim consumer trust. It ensures and certifies that e-commerce systems fulfil all the Sharia obligations of Islamic law of contract in a bid to guarantee the maslaha. A Sharia assured e-commerce system must be devoid of haram products/services, gharar, maysir and riba medium of payments such as the conventional credit card. In an emphasis, P1 expressed "*there must be good governance! Where an independent Islamic authority will monitor the governance and have a look at e-commerce operations to ensure Sharia compliance and issue certificates.*" Furthermore, P2 elaborated that "*Technically the other thing which will be a concern for Sharia is how you protect the privacy of the contracting parties and is it safe? The issue of safety, so I think this is a concern for both conventional as well as Sharia. I think here we need to have an external body of certification, you need to have Sharia board members which are also part of your control.*" Therefore, a Sharia compliance assurance is required to certify e-commerce systems and render customers with assurances that indeed a platform is Sharia compliant. This will imply that all sharia requirements are met and consumers would be assured of the reliability, security and genuineness of the e-commerce system. Whereas, in the event of any anomaly in an e-commerce transaction, the sellers must fulfill their khiyar obligations.

## **Khiyar Policies**

Khiyar (option) policies are the authority given to the e-commerce customer to revoke a sale contract. It is a Sharia obligation upon e-commerce vendors to offer khiyar in the case a customer wishes to cancel an order within an agreed time frame, seeks to return bought items due to defect or wrongful description and seeking refunds in the event of delivery failures (P3; P4; P8). The four applicable khiyar policies are khiyar majlis, khiyar shart, khiyar ru'yah and khiyar aib. These khiyar policies are acknowledged to be a service quality best practice among the conventional e-commerce platforms. Despite bearing different nomenclatures such as return policies, customer protection policies, refund policies or dispute resolution they are deemed necessary. Khiyar majlis is a necessary policy given to a customer to cancel an order within a transaction session. But this option can be extended by khiyar shart which gives customers the option to cancel an order within a defined timeframe. Similarly, because e-commerce transactions are conducted through a virtual medium, khiyar ru'yah requires that customers are offered option to return items due to misrepresentation upon physical examination. Additionally, khiyar aib is the option given to a customer to make returns due to a defect in the delivered item or to seek refund due to the delivery failure. Therefore, in the Sharia context, the khiyar policies must be offered to customers to reduce uncertainties, risk, deceit, impairment, discord and to foster mutual pleasure.

## **CONCLUSION, LIMITATIONS AND FUTURE RESEARCH DIRECTION**

In addition to ensuring the Sharia compliance of e-commerce services, the conventional e-commerce service quality best practices are also desired to bolster Muslim consumer trust, foster use, user satisfaction and net benefits of e-commerce. This can be achieved by developing an effective Sharia compliance assurance mechanism that is currently nonexistent. This must be done prudently and in consultation with key stakeholders in the e-commerce industry to ensure success. Furthermore, provision of responsive and value oriented pre-sale, during sale or after sale services to e-commerce customers is not just a commercial best practice but also an Islamic obligation for empathy and maslaha. Therefore, an effective evaluation of the Sharia compliance service quality of e-commerce systems using our proffered metrics of Sharia compliance assurance, empathy, responsiveness, follow-up services and effective online support capabilities would ascertain the Sharia compliance status of e-commerce systems. These comprehensive but parsimonious metrics enrich the body of knowledge with a new theoretical insight on e-commerce service quality evaluation from a Sharia perspective.

Although, the Sharia compliance e-commerce service quality metrics proffered can be generalised and applied to all e-commerce models but the exploratory study conducted and context of analysis was purely based on B2C e-commerce. However, it did not involve a specific scrutiny of the Sharia compliance requirements in the case of e-auction transactions which will require further investigation. Future research should attempt to empirically validate the Sharia compliance e-commerce service quality metrics to ensure validity. Furthermore, there should be an effort to develop a comprehensive but parsimonious Sharia compliance e-commerce success framework that should include the system and information quality dimensions. However, existing and validated success measures should be adopted, redefined or expanded, unless where it becomes inevitable to develop new ones. This is to foster consistency in the use of e-commerce metrics.

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