

A Syariah Compliant e-Auction Framework

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Abstract— Currently, the Internet which provides a set of interconnected networks has made it possible for individuals and businesses to conduct business transactions electronically. Various internet-based business models have been realized including e-auction, e-shops, e-procurement, e-mall, virtual enterprises, and e-marketplaces, just to name a few. Instead of using the traditional medium, more consumers now prefer to use the Internet as it provides numerous advantages for the consumers such as elimination of the extra cost caused by middlemen. Specifically, e-auction or electronic auction has received tremendous attention from both buyers and sellers. Although the concept of auction or al-muzayadah in general is allowed in Islam, however the conversion of traditional auction to internet-enabled setting has change the way it is conducted, especially in e-auction environment that uses proxies and software agents to bargain on behalf of human users. Studies indicated that some electronic auctions are not Syariah compliant hence Muslim users are exposed to prohibited features like riba (interest), maisir (gambling) or gharar (uncertainty). Thus in this paper we propose a Syariah compliant electronic auction conceptual framework. The study found eight characteristics that do not comply with Syariah principles, which are identification verification, product description, payment method, bidding fee, closing period, starting price, auction fee and payment by third party. Based on the findings, a conceptual framework and system architecture for e-auction is developed to address the issues of non-compliance with the Syariah rules. The framework is validated by a panel of Syariah experts using Delphi technique. The conceptual framework can become the basis for a Syariah compliant electronic auction model for commercial use. However the model for commercial use needs to be evaluated and verified by appropriate Syariah bodies such as Majlis Fatwa Malaysia

Keywords— e-auction, conceptual framework

I. INTRODUCTION

The growth of E-Commerce in the past few years has generated considerable diversity and complexity in its structure and applications. E-Commerce referred to the use of information and communication technologies network economic activities and processes, in order to reduce information related to transaction costs to gain a strategic information advantage [28]. On the other hand e-commerce also produces multiple types of business models including e-auction.

As in [12] Mollenberg define it as a virtual market that depends on the internet protocol and internet line services to carry out the auction. E-auction is conducted through online internet facilities [11].

While three familiar examples are the publicly-traded web giants Amazon, eBay and Yahoo!, which are known for their remarkable ability to attract large numbers of buyers and sellers to one common marketplace in which a vast array of unique objects is sold [6]. As in [7] have reported that in 2001 eBay, the largest online auction house, had 423 million items listed for sale in 18, 000 unique categories. Moreover Yahoo!'s total revenue in 2004 was equal to \$3.574 billion. It is believed that over 50% of Yahoo!'s revenue is derived from auctions [7]. Online retailing and auction has become, and will continue to become, a full and complete business model for some companies. Internet firms, such as Amazon.com, eBay, Yahoo! and Netscape, have proven that this type of business model can be very successful. There are several of Malaysia auction systems such as Lelong.com.my, Mybid, Superbid, Censtation and Pennyauction [8][1][10][19][14]

Traditional auction transaction is permitted towards Islamic principle [29]. Traditional Auction also can be called as al-muzayadah. However, the transformation of the traditional auction into the e-auction leads to the changing in rules, features and thus becoming an issue from Islamic point of view. Therefore this paper will investigate the issue on e-auction from Syariah perspective and the related issues on the Syariah e-auction legality. Thus a discussion with the head of Syariah department, Islamic Faculty, Universiti Kebangsaan Malaysia, Ustaz Shofian also lead the view of Syariah perspective on e-auction. Auction is one of trading method, so the rules are considered towards on Syariah trading principle.

Somehow the negotiation activity being conducted with multiple buyers in order to increase the price. Thus the jurist make additional special conditions to confirm to the auction contract [22].

These conditions are:

- a) Auction will not cause harm to the buyer and seller. According to our Prophet (SAW), He prohibited the traders to offer or bid on other deals that have been answered to accept. Prohibition of injury is based on Islamic rules of not allowing harm and it should be done in all aspects of life including the auction contract.
- b) The buyers must have the ability and intend to buy the product as long as they deal the price from the beginning of auction process. Najash can be happened if a person comes and bids up the price of the item, but he doesn't intend to purchase the item, rather he only wants to raise the price for the customers intending to deceive the buyers. This is the same whether he agreed with the seller to do this or he did it on his own. Najash is an illegal act and if Najash element exists in the trading process, the buyer has the right to withdraw the trading automatically. Najash forms are numerous, including:
 1. The buyers have no intention to make a trading rather than let an auction price rises and only seeks to get reward for dirty work
 2. The buyer pretend as if he wanted to influence a serious buyers to raise its offer price.
 3. The seller gives the false information offer due to let the serious buyer rises the price.

Furthermore Islam also not permitted for uncertainty (Gharar), gambling or speculation (Maisir) and interest (Riba or Usury or Taking and Charging Interest) towards trading activities including auction. Gambling is against the basic principles of justice, equity, fairness, ethics and morality, which are obligatory values within Islam. Uncertainty refers to undertake blindly without sufficient knowledge and there is an element of risk [22]. Generally trading from Syariah perspective either online on or traditional are prohibited to those activities. Somehow people never aware and has no idea how the activities simplify occurs towards their routine activities including trading.

II. SYARIAH PRINCIPLES ISSUE ON ELECTRONIC AUCTION FEATURES

From the carried out case studies and literature review notified that there are eight conventional e-auction features that are non-Syariah compliant such as identification verification, product description, payment method, bidding fee, closing period, starting price, auction fee and payment by third party. So that the particular features need to be specified the detail issue regarding to Syariah. Moreover the changes need to be made towards compliant on Syariah principle. Furthermore Fig 1 shows the filtering process of conventional e-auction features into Syariah e-auction features. The detail

features are briefly stated based on conventional and Syariah perspective.

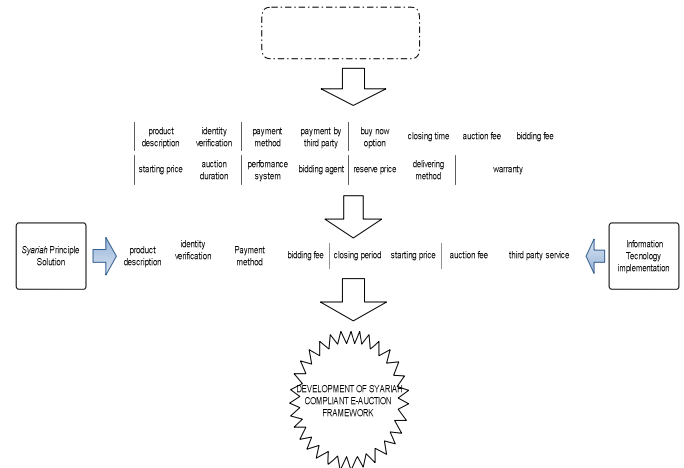


Fig 1: A Filtering Process On Development Of *Syariah* Compliant E-Auction Framework

A. Identity Verification

Identification verification is used to confirm identity of participant [13]. Identity verification in e-auction issue relates to shill bidding and bid shielding. Fraud, bid shielding and shilling bid happens during the auction. Shill bidding is the act of bidding on your own auction against other bidders in order to raise the price at which your item will eventually sell [24][25]. Furthermore bid shielding happens due to preserve a low bid in an online auction. It takes more than one identity. The first places a low bid and the other two immediately bid high and keep bidding higher, which is intended to eliminate all other interested parties. At the last minute, the two high bidders drop out, and the low bidder wins by default [24]. The shill bidding and bid shielding occurs when the system not verifies the participant strictly. So that seller used to create more than one membership by create a fake free email in order to place a bid [5]. Beside the seller yet asks his friend participate in auction and helps raise the price of the product. This situation can influence the serious bidder to continuously place the bid and cause bidding wars.

So that the concept on shill bidding and bid shielding resembles of Najash. Najash is not permissible in auction as well.

B. Product description

Product description refers to product information characteristics that have been specified by the seller on product being auctioned [3]. So that there is a conflict between conventional auctions and Islamic auction in terms of product availability and status of product ownership. The study found that the characteristics of existence Gharar products happens when system provider itself does not identify the products existence by stating the statement that seller has a right to change products with other equal value

product or replace with free bidding package product without buyer permission[14]. This shows that not all auction item can be submitted to the buyer even the buyer already made a payment. This feature is in conflict with the features outlined by Islam, which requires products to be sold must be in existence and legally owned by the seller. While the auction product specifications stated in detail, but the status of existence still can be questioned. This issue arises when there is an e-auction system promotes new products every day but failed to check the availability [14].

C. Payment method

The issue on payment method based on credit card and Internet banking. The seller requires the buyer to make payment using this method without other option. However, the use of credit cards is illegal, whether before or after the date of payment [15]. Riba remain on the user for each use of lead merchants to pay commissions of 1 to 3 percent of card issuers [16]. Users will also be charged a one percent on late payments. While the event if the balances in over a period of up to free the banks to charge as much as 18 to 25 percent a year. This shows a clear element of riba. Additional fees incurred due to delay in payment are known as riba al-Jahiliyah [18]. Credit card is legitimate as long as the buyer pay the entire amount before the due date because the bank will not charge any interest [24]. Another payment issue is the internet banking. This is because there are financial institutions do charge transaction fees that vary based on the amount paid by the buyer. It shows that the transaction charge does not use the fix rate. But then in Syariah principle, the transaction fee need to be stated fix and accurate. According to Ustaz Suffian the transaction charge seems to be the concept of Ijarah. Ijarah literally means to rent or lease something. In its technical sense, the term Ijarah has two different connotations as follows[19];

1. A hire contract to employ the services of a person with wages given to him/her as a consideration for his/her hired services.
2. A lease contract to transfer the usufruct of a particular property to another person in exchange for a rent claimed from him/her.

So that the payment provider such as financial institution able to have a payment for giving service to public.

D. Auction fee

Researcher found that the auction fee can be divided into two, first, service charge and final price fee.

The services charges imposed on individuals who used the facilities provides by the system provider. The study found that every system has a way of calculating the cost of different services. There is an electronic auction system that imposes a fixed service charge and also a changing and there is a practice both. In the Holy Quran states:.

And do not confound the truth with falsehood, nor conceal the Truth know.
(The Holy Quran Al-Baqarah 2: 42)

Service cost is practiced in the system because the cost of services electronic auction system varies with the total cost of services while in Islam must be precise and fixed base on concept of Ijarah. Cost of services for each facility must remain clear and computationally.

E. Bidding fee

There are e-auction systems that charge a fee for each bid is made. The bidding charge is called as bidding fee. However the fee is not a guarantee to win. It seemed to betting charge. Thus consumers have to incur extra costs to make a bid. If the bidder fails to win the auction, the auction fees are not refundable and the bid suffered a loss. This method is equal to the gambling system. The gambling system is forbidden by Islam if the winning party take all the bets and the loser will lose the bet [26][17].

Hence the jurist believes gambling causes harm to either party involved. This is because Islam stressed life is temporary and eternal life hereafter is forever. The al-Quran stress that

Oh you who believe! that Intoxicants and gambling, and the worship of idols and divining arrows are the acts of Satan. So you aside in order that ye may prosper.

Holy Quran, al-Ma'ida, 5:90)

F. Closing period

Closing period refers to the expired time for each e-auction period. Sellers deliberately increase the bid at the last moment to find that buyers are competing for the bid at the last minute. Sellers know when the auction closer to the expiry of the public who make a bid. Then they took the opportunity to increase prices by adding a period to allow more people to bid. In this way also provided benefits to services provider and e-auction systems such as practiced by the [1].

As long as closing period was postponed, the higher the profits derived from the auction fees. Even when the cover ends on the weekend may causes prices to be higher than usual [18].

Based on this situation researchers found that the element exist in the nature of fraud and Gharar. This is because the specified expiration time specified in the auction does not explain the beginning of the actual completion time. Instead it is used as a hint to start bidding. This is contrary to Islamic business features that do not allow cheating. Organizers have been cheating the system by placing the fake closing period

G. Starting price

Starting price is the initiation at the lowest price that could be sold to the buyer [24]. When the intial price is too low then the of loss of control is high. This is because the buyer addicted competing place the bid. Therefore bid stuck with a situation of competition and that causes to bid more than the actual value. This condition is called bid fever.

A similar situation can be detected when the researchers examine the e-auction system such as Pennyauction, Mybid and Censtation [14][1][19]. Buyer tempted to bid more frequently since the beginning of starting price is one cent.

Thus the study found that the system provider using the tactic of offering a very low starting price to attract more bidders to make bids and people suffer for fever bidding.

If fever occurs, the sellers bid to reap higher profits than they should. This shows that the suppression element embedded in the e-auction system features a starting price. But Islam only permissible the activities that not be harmful. The Al-Quran state that

Allah commands justice and kindness, giving to kinsfolk, forbids abomination from doing cruelty. It teaches you the instruction and forbids you to take heed.

(Holy Quran al-Nahl 16: 90).

H. Third party services

Third party responsible for the safety of transfers payment made by the auction online for the seller and buyer. Than services operates by receiving and holding the payment temporarily. Once buyer make the payment the third party will inform the seller to send the product. Once the buyer satisfied with the product then the third party will make the payment to seller unless the buyer not satisfied. The payment will return back to buyer and item will return back to seller. So that the third party will charge the service [9]. The issue occurs when the third party estimates the service charge based on the product total amount. It shows that uncertainty (Gharar) due to let the buyer and seller feel harm. However Ustaz Suffian states that the service charge should not based on total amount but then it should considered concept of Ijarah. This is because the third party services should claim a payment which is considered as hired services. The hired services should be stated clearly and fixed.

III. METHODOLOGY

Due to verify the framework, Delphi technique was applied. Delphi technique is a process of interaction among group members and researchers to act as facilitator [27]. The strength of the Delphi technique can be visualized based on the quality of feedback, the confidentiality of respondents and statistically analysed [27]. Respondent in relation to the moderator and not to the other respondents, but results in the form of statistics that can be shared [21]. A three-round Delphi technique was conducted during period February to April 2011. The first round was used to elicit ideas from participants, the second round to validate those ideas and the third round the revalidate the focus issue that has been done on second round.

A. Panel of Experts

In order to validate the framework, the particular panel were chosen according to those criteria:

1. Panel need to have an intimate knowledge, a good qualification and wide experience towards *syariah* field

2. Panel able to give the commitment along the 3 rounds
3. Panel commonly involve in electronic transaction

Due to time constraint, less expertise in both *syariah* and information technology field, only three expertises are qualified to be panel. More over the thesis was done only for master qualification which is needed only a small group of panel for verification process. So the selected panel are the lecturers from Syariah Department, Islamic Education Faculty, Universiti Kebangsaan Malaysia.

B. Data Collection Procedure

Data collection are taken towards three rounds. For the first round, panels were required to answer the research question verbally. The questions were conducted by interview session. So that an appointment is setup individually and panels were exposed to every single process of future e-auction framework from IT perspective. Furthermore they need to answer 10 questions from Islamic perspective. So that the feedbacks in the first round were analyse base on theme. The theme was considered as the main features of e-auction. According from the feedback, the features were classified as Product description, User registration, product status, payment method, delivering method, service charge, bidding fee, services fee, closing period and starting time. Following this round, the features constantly creating the detail questionnaire on second round. For the second round, the same respondents who took part in first round were required to provide their feedback for the second round and 4-Likert scale is used to evaluate each of questions as a feedback. Figure 1 shows the number of questions according to e-auction features. Furthermore the evaluation provides 4 score level; Really agree(4), agree(3), disagree(2) and really disagree(1). Furthermore the panel has an option to point the comment for each evaluation in order to support their answer. According to second and third round, the data has been analysed based on inter quartile range and median. So that the analysis result for the second round did exposed in the third round. In the third round, the features are further redefined. However only selected features will be chosen based on:

1. The features answer which including together with the comment.
2. The feature that has the inter quartile range more than 2 and above.

Features	No of Questions
Verification Identity	2
Product Description	3
Product status	3
Payment Method	4
Delivering Method	2
Service Charge	2
Bidding Fee	2
Closing period	2
Auction Fee	1

Fig 2: The Number of Features Question

For the third, the list of technology features were further refined and using 4-Likert scale again, panels were asked to rate the list of element. A set of questionnaire for third round is output from second round. Median, inter quartile range and comment from every panel are distributed in order to show the consensus from every element.

C. Analysis Data Procedure

Questionnaire in the first round were analyse base on theme. The theme was considered as the main features. The features were classified as Product description, User registration, Product status, Payment mechanism, Delivering mechanism, Service charge, Bidding fee, Services fee, Closing period and Starting time.

After got feedback from second and third round, the data were analyse base on inter quartile range and median. So that the estimation of Information Technology elements were analyse due to find the consensus base on media score below:

If the element get the median result between 3.5- 4, so that majority of panellist are agree with the element. If the median result between 2.5-3.49 so that the panellist just took on status intermediate with the element. Beside if the median between 1.0 to 2.49 so that majority of panellists are disagree with the element.

D. Element Consensus

Inter quartile range is used to find out the relationship between element to panellist due to make the consensus for every element. The consensus are base on inter quartile range score below:

- i. High consensus between 0 to 1
- ii. Intermediate consensus between 1.01 to 1.99
- iii. No consensus between 2.0 and above

E. Data analysis

Every single data in this research were analyse using Centralization measurement according median and inter quartile range. For the first round, According from interview in first round, the researcher create 20 question including 10 main requirement features for online auction system.

In the second round, the data were analysed using median and inter quartile range. So that out of 21 questionnaires, 20 elements were evaluated less than 0.5. So that the panellists are really agree with the suggested element. Even though there has a feature fails to find out the consensus because the inter quartile range result on 3. So that the element need to redefine based on the comments. According from third round they transform the answer into the guidelines on development process of Syariah online auction framework. The guidelines were post to panellist due to evaluate the process again. After that the panel give a feedback to let the researcher improve the framework as well.

In this works basic ideas to and some preliminary result of the development Syariah compliant e-auction conceptual framework where shown. The full e-auction framework is estimated to be completed on September 2011. The discussion on e-auction conventional features brought a distinction between legality of syariah trading and conventional trading which have to be changed due to ensure that the conceptual e-auction framework is fully Syariah compliant

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IV. CONCLUSION AND DISCUSSION

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