The Mediating Effect of Supply Chain Integration on Inculcation of Islamic Ethical Values among Muslim Students through the E-learning Platform

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Abstract—Supply chain Management has played a significant role in corporate efficiency and has attracted the attention of numerous academicians over the last few years. As the concept of becomes more widely accepted, supply chain integration (SCI) is gaining more attention among both practitioners and academics. With an all-encompassing pace of communication and information technology, the planet is changing over time; the gap between the rich and the poor is widening. The study employed a quasi-experimental research design to assess the effectiveness of inculcating Islamic values and supply chain using e-learning platform modality. Teaching moral values is perceived to be an important part of education in Islam. The components of the syllabic formal education slowly spit out information on the growth of character. With both the busy schedule of individuals, the position of family and community in the formation of personality is declining. There was only hope for this country with the teacher on the eLearning site, optimism always fades due to the physical absence of a teacher. This article is a short report showed that the use of e-learning platform with the integration of Islamic values is found effective to enhance students’ Islamic values. It also suggests an ICT-based model that can help to define the growth of Muslim students in the e-Learning environment.

Keywords; Information and Communication Technologies; E-Learning platform; Supply Chain, Islamic Ethical Values

1. Introduction
Supply chain management (SCM) has strategic relevance as a source of competitive advantage. Ethical values and principles are an important portion of society. Such principles were changing and growing in a community. Coherence in the work and efforts of country depends on it. Customarily, students will learn about ethics and acquire the moral values of character development from their communities, institutions and instructors through conventional forms of education. More reinforcement of these principles and the growth of personality would be given by the content contained in the usual subject matter. In several instances, specialized courses on ethical issues will be given to students.

The climate and the cycle of socialization to the students are subjected to remain key factors leading to academic achievement and the growth of character. Learning and adhering to ethical values is as essential to a student as his/her awareness of the industry. Islam gives great importance to the respect to moral values[1]. Graduates with technical skills and without moral values are like machines who would only function to meet their security needs, regardless of the potential benefits of membership. Economic development is forcing educational institutions to be business-oriented and to offer courses that are market demand and supply chain process provided the effective environment the promote the economic development. So, the information on ethics is progressively fading from the syllabus. Similarly, households, especially teachers, are having less and less time to focus on the child's moral development. The unity of community is weakening, and usually no one would care about the behaviour of a neighbour’s child or the street as it once was. It is a major concern that the education system of the last century, particularly in technology disciplines, is creating robots that lack moral principles and interpersonal skills[2].

Plenty of platforms have been used by various countries for the development of values in the students, while some mechanized platforms have somehow endorsed some
positive images on the sense of such students. The changing world has somehow eradicated the aspects of discrimination while the aspects of dealing behaviours are still prevailing in different countries. Most of the students are boarded to the schools where the quality education is provided with all means, while some people strive without teachers have some values exclusive of ethics due to not having the reasonable teaching standards. The supply chain management of religious materials could be a significant way for developing the capabilities. It is the some viable aspect, while the families are also the main element which are required to build some ethic in students of the countries, many Muslim students are provided all capabilities through Islamic studies a complete course of ethic. The dealing of public and other age of people are well elaborated in the aspects where they are to be treated with which sort of people[3].

The incredible growth and inclusive pace of ICTs has led to tremendous shifts in all sectors of society, particularly in education. E-Learning along with supply chain is one of the results of the effect of ICT. E-Learning is a teaching-learning process implemented without time or space constraints through technology. Given these benefits, eLearning often complicates the conventional issues of theft, plagiarism and others. Compared to traditional schooling, students are more likely to deviate from expectations and conduct unethically due to lack of physical interaction with the instructor[4]. In brief, the instructor, who is the last conduit of learners' inculcation of ethical values, literally disappears into e-learning programs? This directly impacts the growth of pupils, which is one of the main objectives of schooling from an Islamic point of view and a key factor for a socially just community. With the advent of ICT and the changed position of teachers and students in the e-Learning environment, the inclusion of religious ethics and values will become a major challenge for Muslim educators. This task should not be seen as a hazard, but should be embraced as an opportunity that can yield amazing results if the resources are used properly and carefully[4]. This paper presents the effectiveness on the integration and use of e-learning towards the character development of students. The paradigm is introduced where the ICT, supply chain and e-Learning systems can be used to account for the non-participation of all participants in the growth of a student's character.

Studies have mentioned various context for the development of Muslim students, though some observations have been asserted in the examination of their capabilities they have achieved while studied in the Islamic schools. In the global world, various platforms have been organized by various countries, which have been specified in various studies with some significance which shows a wide area of learning to the Muslim students. Various aspects of materials have been enumerating some conclusive measures in studies that have been given by the era of supply chain[5]. E learning facility has not only enable the students to learn on daily basis but also has enabled to learn every aspects through the way of E learning facility which provides broader se. Islam is a complete religion, which not only induces the standards but also endorse all possible and reasonable ethics to the students and all human being. Variety of facilities have been mentioned by variety of studies, while the E learning platform has significantly endorsed some positive results.

1.1 Objective of the study
The objective of the study were formulated based on the effectiveness of e-learning platform with the use of supply chain practices. Hence, it answers the question on how different are the pre - and post- attitude scores of the respondent with the use of e-learning platform. Through this model, friends, peers, general members of society, instructors and course materials may engage in the growth of a student's character while the course is being presented online. The rest of the paper would address the role of ethics in culture, the value of ethics and education in the Islamic context, sustainable development and ethics, and e-learning with ethical concerns. After a review of all these, a concept will be presented. The summary of the paper and future work will be offered at the end[6].

1.2 Research Questions
To guide the research process, the author defined two research questions below:
1) What values are performed by the students before and after the implementation of E-Learning platform?
2) Is there a significant difference on the values of the students before and before and after the implementation of E-Learning platform?

2. Literature Review
The study employed a quasi-experimental research design, which is commonly used in teaching-learning setting. It specifically employed the pre-test-post-test experimental research method. This method is considered appropriate to examine the effects of innovations in an
educational setting with the mediating role of supply chain, which is a common method for educational research the method measures the growth and gain of learners’ performance with their exposure before and after a particular intervention is initiated[7]. The respondents of the study were a total of 30 Indonesian students. When taken as a whole, the majority are females (n=24) compared to males (n=6). The calculation of the sampling size used the t-test of the mean difference for math pairs of G*Power with the power of 0.90. Meanwhile, the test of homogeneity of variances of the English language proficiency level uses the Levene’s test for equality of variances set at 0.05 alpha level. Anchored on the study’s understanding of ethical studies, the participants' personal information and data were handled confidentially[8]. The written request was approved by the school authorities before the selection of participants and conduct of the study. The parents’ consent was also secured by the researcher. The parents were provided information regarding the risks and benefits of the study, which may cause to their children. With clear intentions, the parents allowed their children to become the participants of the study with the affirmation of the school headmaster and department head. Likewise, the respondents and parents have filled out a data privacy agreement form. Finally, anonymity of the respondents’ and institutions was observed for ethical reasons[9].

The study used two necessary research instruments developed by the researcher. The values instrument consisted of ten items relating to the Islamic values of students towards self and community which was based from the instrument of Padela et al (2019) on measuring Muslim modesty[10]. Modesty is distinctively characterized as an intrapsychic self-view, a public self-presentation, or a mixture of self-view and self-presentation. The instrument has a Cronbach Alpha of 0.83.

E-Learning association with supply chain becomes an effective education process that utilizes the possibilities of digital technologies to create content, measure student abilities, and improve engagement between users and between teachers. Delivery may be symmetric (where interaction between student-teacher and student-student is simultaneous) or asynchronous (where interaction between college-teacher and student-student may not take place concurrently with time and location constraints). In both styles, students need to be inspired to learn in order to counteract the negative effects of a gap between themselves and their instructors[11]. Students learn moral and ethical principles through the physical interaction of students, communities and members of society, but e-Learning is may be in transmitting these values-learning may take place entirely online in virtual worlds through e-learning systems or in a combination of virtual, and face-to-face settings called mixed learning and strong emphasis of the Islamic values and supply chain process. Things get complicated when comes to the position of communicant. It might be less delicate for Judaism and Christianity since the two religions are intended exclusively for certain communities, certain time and there was virtually no dialogue with the community at the time of its revelation. Communicants of these two religions are Moses and Jesus[12]. On the contrary, issues come up when discussing Islam of the Prophet Muhammad since this religion is revealed with dialogue between Prophet Muhammad and his community in the process of revelation. Moreover, Islam is declared as the perfect religion (Al-Ma>idah:3) and Muhammad as the seal of prophets (Al-Ah{za>b:40). With this situation, a question comes up; who is the communicant of God in this Quranic discourse? Is it solely Prophet Muhammad, the Arabs, children of Israel, or whole human being?

With these characteristics of Islam, certainly the communicant of God in the Quranic discourse is all human being, because the meaning of communicant is the recipient of message. However, communicant should be differentiated from the aspect of situation and condition as well as time as space. From space perspective, there are two communicants; direct communicants and indirect communicant[13]. Direct communicant in this Quranic discourse is those who were present in the process of revelation, such as the Arabs and children of Israel, while indirect communicants are community who were born when the process of revelation had been finished, either Arabs of non-Arabs. Direct communicant also should be differentiated between primary communicant, who was the agent of God who has the mission to convey the message to other parties, and secondary communicant who were commanded to obey the message conveyed by primary communicant[14]. The primary communicant in Quranic discourse is Prophet Muhammad and secondary communicants are the Arabs and Children of Israel[15]. The relationship of God as communicator and Prophet Muhammad as primary communicant is a one-way communication. God is an active and free as communicator or in other terms; the sender of messenger (mursil), the law giver (sha>ri>), enactor of taklif (mukallif), the sender of revelation (mu>h{fi>), the
commander (a>m, the speaker (qa>il), the forbidding (Na<hi), the Guide (Ha<di), and other attributes. In contrast, Prophet Muhammad is in the “passive and bound position” as communicant or in other terms; messenger (mursal), law performer (mashru>r), the recipient of revelation (mu>ha> ilayhi), the commanded (ma’mur>r), the saying (maq>la), the forbidden (manhi>r), and others. This passive and bound position of Prophet Muhammad could be seen from the expression of the Quran that in form of imperative like the use of “qul (say!) or ittabi’ (follow!) and in form of prohibition such as using la>na>hiyah, ma> or laysana>fiiyah (Al-An’a>m:50, Al-A’ra>f:188, Al-Ah>qa>f:9, Al-Ra’du:27,Fus}silat:6, Al-An’a>m:106, Yu}nus:109, Al-Isra’:36, Al-Baqarah:272, A<li Imra>n:128 and Al -Nah}l:81). Prophet Muhammad is also ordered “to say that he is ordered” (Al-An’a>m:14, Al-Ra’du:36, Al-Zumar:11,dan Al-Shu>ra>:15, Al-Kahfi:22-23, Al-Naml:70, Al-Qalam:8and 10, as well as Al-Tawbah:84). Thus, Prophet Muhammad is forever in the position of “being commanded and forbidden” (Al-Nisa>’:63, Al-Hijr:94, Al-A’ra>f:199, Al-Muzammil:10, A<li Imra>n:159 and Al-Mudathir).

On the other hand, the passive position of Prophet Muhammad in front of God can also be seen from the content of some verses of the Quran. Firstly, the Quran positions Prophet Muhammad merely as messenger of divine revelation to huwan being without any condition and without fear in delivering the message (Al-Ma>rid:68). This duty is a grave duty from God because He emphasizes that if Muhammad made it up a word or two and related it as God’s words he would be severely punished by God (Al-Ah}qa>f:8); furthermore, God threatens to double the punishment (Al-Isra>:86, Al-Ha>qqa:h:44-46, and Al-Isra>:73-75).

Secondly, the Quran vigilantly warns Prophet Muhammad not “to hastily recite” the Quran to his companions before any explanation from Allah, even though what comes out from the mouth of Prophet Muhammad is considered as revelation (T}a>ha>:114, Al-Kahfi:23-24, and Al-Ha>j:j:52). This caution is because there was an event when Prophet Muhammad made a wrong decision about the beating of a husband to his wife. Upon the event the Prophet ordered the wife named Habibah ibn Zayd to beat back his husband, but before long a verse was revealed revising the decision by saying that the position of husband was the head of household (Al-Nisa>’:34). Accordingly, the Prophet overruled his decision after a verse revealed (T}a>ha>:114) and said: “we want something, but Allah wants something else and what He wants is the best”. Prophet Muammad is also forbidden to ask for a revelation before its due, to expect a revelation, or to say something God never says.

Thirdly, the Quran ordered Prophet Muammad “to wait” the revelation before jumping into decision (Al-Baqarah:189, 215, 217, 219, 219, 220 and 222, Al-Ma>ridah:4, Al-A>raf:187, Al-Anfa>l:1:1, Al-Isra’:85, Al-Kahfi:83 and T}a>ha>:105). The expression of “yas’alunaka… (people ask you…) and qul.. (say!)” which are repeated seven times in al-Baqarah chapter and about fourteen or sixteen times in the Quran indicates that the position of Prophet Muhammad is a subject that is “commanded to say” (ma’mur>r bi al-gaww), but a subject who says (qa> il). He is not allowed to say something except he is told to say so, not allowed to answer except he is told to answer and so forth. All of this due to his position in following what is revealed to him (Al-An’a>m:50, Yu}nus:15,dan Al-Ah>qa>f:9).

Fourthly, the Quran prevent Prophet Muhammad to show “certain attitude” without clear reference to the Quran, such as his attitude toward Ibn Umm Maktu>m which later caused the revelation of Abasa chapter in the Quran as if it was a warning for the Prophet. Likewise, in relation to a case when Prophet Muhammad refused to distribute s}adaqah (alms) to mushrik (polytheists, infidels) who were in need because they were not Muslims, he was warned by God. It was because the authority of guidance belongs to God, not Prophet Muhammad (Al-Baqarah:272). Prophet Muhammad also once gave permission to muna>f{q people (the hypocrites) for not to participate in Tabuk raid before clear instruction from God (Al-Tawbah:43). Prophet [16]Qis>:a>sa:s:56).

Fifthly, Prophet Muhammad is in passive position when the Quran speaks about his family, and he is allowed to do things as long the Quran says so. For instance, he once ordered to marry former wife of his adopted child named Zaynabbi>Jah[17]za:b:37). In addition, in certain conditions, the Quran positions Prophet Muhammad from active position, that is the subject that should be obeyed equivalent to obey Allah (Al-Anfa>l:1:20, 46 and A<li Imra>n:n:32). Muslims are instructed to follow the words of Prophet Muhammad because of his saying is revelation (Al-H}a>shr:59). Do those injunctions indicate that Prophet Muhammad can also be considered secondary communicator and granted to give law by Allah?

Muhammad Shahru>r bases his critique towards al-Shafi’i’s position by presenting three main terminologies
to show the meaning of ta’at (at’i’u>) to Prophet Muhammad as aforementioned in the Quran, that is al-
ittiba>, al-qudwah, and al-uswah. Firstly, al-ittiba’ (Al-
Baqarah:38 and Al-Na’zi’at:6-7) means following orders. The term “following” has two connotation meanings: following which means exemplary, which is obeying the instruction of the Prophets and their knowledge as well as the messengers and their guidance (A<li Imra>n:a31), it also means despicable like following the footstep of fore fathers who did things without any reason (Luqma>n:21) and also follow satan who is stray and leading to astray (Al-Nu>r:r:21).

Secondly, al-qudwah (Al-An’a>m:90 and Al-
Zukhru>f:23) has also two connotations; following things that lead to benefit such as following the guide of the Prophets (Al-An’a>m:a390) in theology and method as well as speaking and trading etiquette. It also means following things which do not bring any benefit such as following the footstep of fore fathers who did things without reasoning of its truth and benefit (Al-Zukhru>f:f23). And thirdly, al-uswah (Al-Mumtahanah:4, 6 and Al-
Ahj>za>b:21) means following certain personality in relation to goodness, truth and benefit in term of thought, manner, saying and deed. In contrast to other two terms, it does not have negative connotation. According to Shahrur, this al-uswah term specifically refers to Prophet Muhammad[18].

Then, it is now the matter of the application of ta’at (al-
uswah). According to Shahrur, the term uswah is used to the level of Muhammad’s messengership, not his Prophethood. He further says that messengership is a matter of voluntary action, whereas prophethood might contain force. In the level of prophethood, Muhammad becomes a kind of political leader dan army commander who use force. This emphasis is founded upon the Quran which use expression of at’i’u> al-rasu>l (Al-Nisa’:64) and that on a messenger lies uswah hfasanah (Al-
Mumtahanah:6 and Al-Ahza>b:b:21). And that there is no verse in the Quran that use the term at’i’u> al-nabi. To prophets, we are ordered to “affirm” not to “follow”. Whoever affirms will eventually obey him.

The obedience to Rasulullah is divided into two categories: first, obedience to Rasulullah which is related to obedience to Allah (Al-Nu>r:r:52, Al-Ahj>za>b:71 and A<li Imra>n:a132). This kind of obedience, according to Shahrur, is ikhtiyari, universal, and eternal (while still alive or after his passing away). Among the examples of this obedience is obeying the order to perform sholat (prayers) and pay alms zakat (Al-Nu>r:r:56). Secondly, the obedience to Rasulullah which is separate from obedience to Allah, in contrast, is related to obedience to ulu al-amr (lit: people in charge) (Al-Nisa’:59, Al-Ma>idah:92 and Al-Tagha>bu>n:n:12). According to Shahrur, this type of obedience is done only during the lifetime of Prophet Muhammad.

3. Research Methods
This study use the questionnaire method to gathered the data from the respondents that was analysed with the help of PLS-SEM. The technology values (TV) has 20 items, ethic values (EV) has 15 items, moral values (MV) has 10 items, supply chain management (SCM) has 6 items and E-learning platform for Muslim students (ELPMS) has 10 items. These constructs are mentioned in Figure 1.

<table>
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<th>Table 1: Convergent Validity</th>
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<td>Items</td>
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Figure 1: Theoretical Framework

4. Findings
The items show the convergent validity firstly that show items are extensively associated because the loadings and AVE are not less than 0.50 and CR along with Alpha are also more than 0.70. These states are shown in Table 1.
The results show the discriminant validity secondly that show constructs are not extensively associated because the ratios of Heterotrait Monotrait are not higher than 0.90. These states are shown in Table 2.

### Table 2: Heterotrait Monotrait Ratio

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<tr>
<th></th>
<th>LPMS</th>
<th>TV</th>
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<tr>
<td>TV</td>
<td>.534</td>
<td>.082</td>
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<td></td>
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<tr>
<td>V</td>
<td>.156</td>
<td>.062</td>
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<tr>
<td>CM</td>
<td>.522</td>
<td>.904</td>
<td>.062</td>
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<tr>
<td>IV</td>
<td>.455</td>
<td>.472</td>
<td>.112</td>
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The path analysis expose that TV and MV has positive association with the ELPMS and accept H1 and H3 while negative association among EV and ELPMS and reject H2. In addition, SCM positively mediates among the links of TV and ELPMS, EV and ELPMS and MV and ELPMS and accept H4, H5 and H6. These are shown in Table 3.

Scoring and interpretation of the gathered data, descriptive statistics such as frequency, mean, and standard deviation were used. The pre-test and post-test scores were analyse and interpreted before and after their exposure to values el-learning platform, the following scale was adopted: 4.20-5.00- Highly Favourable; 3.40-4.19- Favourable; 3.60-2.39- Neutral; 1.80-2.59- Not Favourable; 1.00- 1.79-Very Unfavourable[19].

### Table 3: Path Analysis

| Source | 
|--------|--------|--------|--------|--------|
| IV -> ELPMS | .208 | .105 | .941 | .022 |
| V  -> ELPMS  | .143 | .065 | .815 | .014 |
| IV  -> ELPMS  | .219 | .051 | .102 | .003 |
| V  -> SCM -> LPMS  | .307 | .063 | .481 | .002 |
| V  -> SCM -> LPMS  | .307 | .063 | .481 | .002 |
| IV  -> SCM -> LPMS  | .043 | .018 | .374 | .001 |
Research Question 1. Values of the Students before and after the implementation of E-Learning platform

Primarily, the descriptions of the scores of the respondents were described in this part of the study to provide a clear background of the pre-test and post-test attitude scores in using the E-Learning Platform. Table 1 presents the differences between the pre and post attitude of the respondents was taken as a whole, neutral or uncertain level of attitude towards learning values is expressed by the respondents before the implementation of e-learning platform. Results imply that there was improvement on the learners' attitude towards values after the implementation of e-learning platform[20].

Research Question 2. Is there a significant difference on the values of the students before and before after the Implementation of E-Learning Platform?

Moreover, the attitude of the respondents exposed to e-learning platform with values integration. Post-test results had significantly higher scores compared to the pre-test result. In the advent of implementation e-learning platform, the respondents were able to score a significantly higher level of attitude after using the e-platform. It can be simply illustrated that the exposure of the respondents in e-eLearning increased their level of attitude towards values from neutral to a favorable level[21]. Hence, there is a significant difference in the pre and post attitudinal scores[22].

From the findings, it can be discussed that the use of e-learning platform with the integration of Islamic values is found effective to enhance students’ Islamic values. The proper integration of values to students using e-learning platform promotes development of values[28].

As implications of the study, it is recommended that the LMS should have a collection of products based on different ethical values. Only one or two should be included at random with each online course. It is expected that all teachers would have a grasp of all ethical values in this way. Questions on the ethical values learned will be part of the final review of the online course taken by the applicant. The site should have a list with different ethical principles and seamlessly integrate it in different courses. The first move would be to establish course materials on the various aspects of academic integrity[26]. It will also explain the importance of these ethical values, the effect on culture and the sanctions that could be levied.
on the individual. Such content should be included arbitrarily in the various courses that the student takes online. Academic institutions will establish policies and rules on academic honesty and provide instruction to appropriate teachers[29]. Growing participant should provide a list of names to be used as volunteers to determine the students' moral values.

The platform of E learning has not only contributed valuable measures to the Islamic education but also has endorsed positive impact on such E learning has also been enumerated by some significant factors[30]. Technology values have inserted positive means for the development of values in the students, while the construction of such Muslim students have been much easier. Ethical and moral values with the support of supply chain has positively contributed significant aspects that are resulted in building the capabilities of students and Islamic organizations[31].

Potential research is being discussed in two ways. One of them is to come up with LMS development services facilities[32]. This should take care of the software innovations and their integration into the e-learning courses. A framework for the involvement of volunteers in ethical appraisal participants such as friends, families, peers and general volunteers should also be given. The second future work could be on the basis of empirical examination of the model. Research could be carried out on the inculcation of individual ethical values. For starters, we should take academic integrity and see how the new paradigm can be fully incorporated. Primary evidence can be obtained and systematically tested on the model's validity[33,34].

5.1 Limitations and avenue for future research

Having attained the specified objectives of this study, this study has several limitations that can be based on future reviews and studies. First, there is a need to replicate the study with the inclusion of specific variables. Second, data of this study were only sourced out through a self-assessment survey, which can limit the generalizations of this study. The use of a mixed-method is encouraged to validate the finding of the present study. Third, there is a need to explore the social and environmental responsibilities of online fashion businesses with their operational standards.

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