



**IMPS 2017**  
International Multidisciplinary Conferences  
on Productivity and Sustainability

# PROCEEDING

of the 2017 International Multidisciplinary  
Conferences on Productivity and Sustainability

Alila Hotel  
Jakarta, 5-7 December 2017

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of the 2017 International Multidisciplinary Conferences  
on Productivity and Sustainability



**Editors:**

Indra Karnadi, Ph.D.

Ngadiman Djaja, Ph.D.

Hamin, DBA

Publisher:



Jakarta, 2018

# **PROCEEDING of the 2017 International Multidisciplinary Conferences on Productivity and Sustainability**

**Alila Hotel, Jakarta**

**5-7 December 2017**

**Editors:** Indra Karnadi, Ph.D; Ngadiman Djaja, Ph.D; Hamin, DBA

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# PREFACE

To make people are fascinated to us (either as a researcher or academician), we can make them keep asking about our research and project. The more interests from others, the more recognitions we get. The easiest way to learn about research and projects is by participating in an academic forum which discusses recent studies and facts from various disciplines. It is also a cost-effective way to build network with various researchers and academicians from various backgrounds.

On 5-7 December 2017, the 2017 International Multidisciplinary Conference on Productivity and Sustainability (IMPS 2017) is organized based on the fact that today's world demands better productivity due to the harsh competition, as well as the needs of sustainability as regards the scarce resources and global competition. Three sub-conferences are formed to accommodate the diversity of academic backgrounds: Science, Engineering and Technology (ICSET); Economics, Business and Management (ICEBM); and Social and Behavioural Science (ICSBS).

We have +250 papers submitted by authors from Indonesia, Malaysia, Taiwan, Japan, Vietnam, India, P. R. China, and USA, 154 papers were accepted, and 136 have registered to present their papers in the conference. **Selected authors are committed to publish their papers in the proceeding**, while the rest will continue their studies and publish their works in various reputable journals.

We would like to thank all the authors for participating in the IMPS 2017. Thanks to our invited speakers: Professor Naoki Kobayashi (Saitama Medical University, Japan), Professor Suganda Jutamulia (University of Northern California, USA), Professor Joewono Widjaja (Suranaree University of Technology, Thailand), Associate Professor Ferry Jie (Edith Cowan University, Australia), Dr. Hamin (Krida Wacana Christian University, Indonesia), Professor Sri Suryawati (UN; Gadjah Mada University, Indonesia), Dr. Pillar Ramos-Jimenez (Philippine NGO Council on Population Health and Welfare, Philippine), and Professor Johana Endang Prawitasari (Krida Wacana Christian University, Indonesia). We appreciate Professor Stuart Yin (Pennsylvania State University, USA) for his insightful invited paper. A heartfelt thank is given to the committee, moderators and reviewers who have been involved in the organizing conference with heart and soul.

Finally, thank you for our organizing partners for making this happen: Taiwan Education Centre, Chang Jung Christian University (Taiwan), Tunghai University (Taiwan), Parahyangan Catholic University (Indonesia), and Petra Christian University (Indonesia).

Jakarta, 20 March 2018

**Dr. Oki Sunardi**  
**Krida Wacana Christian University, Indonesia**  
***General Chair***

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## **CONFERENCE PAPERS**





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Tue, Aug 1, 2017 at 11:47 AM

Reply-To: ICEBM-2017 <icebm@ukrida.ac.id>

To: hotlan.siagian@petra.ac.id

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The final decision will be announced on August 30 (at the latest). The review process aims to make sure that all the accepted papers have met the standard for journal publication.

We will contact you soon.

Best Regards,

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## Arricle for ICEBM conference

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**Hotlan Siagian** <hotlan.siagian@petra.ac.id>

Tue, Aug 1, 2017 at 11:40 AM

To: icebm@ukrida.ac.id, Hatane Samuel <samy@petra.ac.id>, Serli Wijaya <serliw@petra.ac.id>

Dear ICEBM Committee,  
please find attached 2 full paper article for your review. We apologize for the late submission and hope you can accommodate our participation.  
thank you very much for your kind attention.  
Best reards  
Dr.Ir.Hotlan Siagian M.Sc.  
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### 2 attachments



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# **PAPER EVALUATION FORM**

*Complete this form if you cannot use online form*

Paper Title: **The analysis of website quality, trust, satisfaction, and loyalty on the online shop in Indonesia**

## **PAPER PROFILE**

	Poor*	Marginal*	Acceptable	Good	Honors*
Originality of the work				X	
Scholarly relevance /industrial relevance				X	
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Acknowledgement of the work of others				X	
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	YES	NO
In your opinion, is the research methodology and treatment of the subject in the paper plausible and free of technical errors?	X	
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Acceptable with major revisions\* (review required after revision)  
NOT ACCEPTABLE

X

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**COMMENTS**

To assist the author(s) in revising his/her/their manuscript, please separate your remarks into two sections:

This paper is quite good.

One might question to what degree online quality alone is a determinant of loyalty, detached from actual service quality/products (i.e. not online).

The authors may wish to consult some of the newer work on customer loyalty for their literature review:

Baumann, C., Hoadley, S., Hamin, H., & Nugraha, A. (2017). Competitiveness vis-à-vis service quality as drivers of customer loyalty mediated by perceptions of regulation and stability in steady and volatile markets. *Journal of Retailing and Consumer Services*, 36, 62-74.

Hamin, H., Tung, R. L., Baumann, C., & Hoadley, S. (2016). Customers' savings rate and share of wallet: the moderating role of religion and ethnicity/immigrant generation vis-à-vis attitude as mediator. *Journal of Strategic Marketing*, 1-17.

The paper would also benefit from professional English editing.

Good luck with the project!



---

## ICEBM-2017 Pre-Review

---

Hotlan Siagian <hotlan.siagian@petra.ac.id>

Tue, Aug 1, 2017 at 3:03 PM

To: "ICEBM-2017 International Conference on Productivity and Sustainability in Economics, Business and Management"  
<icebm@ukrida.ac.id>

Thank you, I will do that.

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<http://imps2017.ukrida.ac.id>



## ACCEPTANCE LETTER

**Dear Author(s),**

It's my pleasure to inform you that after the first stage of blind review process, your paper:

Title : The analysis of website quality, trust, satisfaction, and loyalty on the online shop in Indonesia

Paper ID : ICEBM-017

Author(s): Hatane Semuel,

Hotlan Siagian

Track : ICEBM

has been **ACCEPTED** to be presented in the 2017 International Multidisciplinary Conference on Productivity and Sustainability, 5-7 December 2017 in Bali. Please register as presenter via conference website no later than 07 October 2017.

In order to be published in **Advanced Science Letters**, your paper will be reviewed by at least two reviewers. The committee will send the full review result no later than 15 November 2017 (if further review result occur to make sure the minimum quality requirement of the paper). Final revised paper should be submitted by the authors **no later than 21 December 2017** to the committee. Your revised paper is expected to be published in 2018.

Look forward to seeing you in Bali.

Best Regards,

Friday, 08 August 2017

**Dr. Oki Sunardi**

**General Chair**

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## Power point slides

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Bcc: hotlan.siagian@petra.ac.id

Mon, Dec 4, 2017 at 5:09 PM

Distinguished presenters,

Your presentation is coming soon.

In order to ease the time management during your presentation, kindly please send us your power point slides **by 8.00 PM tonight**.

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Thank you for your kind cooperation.

--

Best regards,

**Frieda (Ms)**

*Submission Manager*

International Conference on Productivity and Sustainability in Economics, Business and Management (ICEBM) 2017  
Universitas Kristen Krida Wacana, Jakarta  
Indonesia





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## ICEBM016-Hotlan Siagian-Rev.1 and ICEBM017-hotlan Siagian-Rev.1

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**ICEBM 2017 UKRIDA** <icebm@ukrida.ac.id>

Tue, Jan 9, 2018 at 8:23 AM

To: Hotlan Siagian <hotlan.siagian@petra.ac.id>

Dear Hotlan Siagian,

Thank you for sending us the revised paper.  
You will be notified if further revision is needed.

We wish you great 2018.

[Quoted text hidden]

[Quoted text hidden]



--

Best regards,

**Frieda (Ms)**

*Submission Manager*

International Conference on Productivity and Sustainability in Economics, Business and Management (ICEBM) 2017  
Universitas Kristen Krida Wacana, Jakarta  
Indonesia



---

## Revised Paper Review

---

**ICEBM 2017 UKRIDA** <icebm@ukrida.ac.id>

Tue, Jan 23, 2018 at 12:06 AM

To: Hotlan Siagian <hotlan.siagian@petra.ac.id>

Dear Hotlan Siagian,

We apologize for the delay in sending the first review of your revised paper.

Attached in this email is the review from our editor(s).

Your final paper must be submitted by 30 January 2018 at 12.00 PM to [icebm@ukrida.ac.id](mailto:icebm@ukrida.ac.id).

As the email subject, please mention the PaperID, corresponding author's name, and revision number. (Example: ICBEM099-Jaka Samudera-Rev2).

Thank you and best wishes on your publication.

--

Best regards,

**Frieda (Ms)**

*Submission Manager*

International Conference on Productivity and Sustainability in Economics, Business and Management (ICEBM) 2017

Universitas Kristen Krida Wacana, Jakarta

Indonesia

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### 2 attachments



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## Revised Paper Review

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## CONFERENCE PROCEEDING

### 2017 International Multidisciplinary Conferences on Productivity and Sustainability Jakarta, 5-7 December 2017

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#### The Analysis of Website Quality, Trust, Satisfaction, and Loyalty on the Online Shop in Indonesia

Hatane Samuel<sup>1</sup>, Hotlan Siagian<sup>1\*</sup>

<sup>1</sup>Petra Christian University, Faculty of Economics, Magister Management Department

\*Corresponding author Email: hotlan.siagian@petra.ac.id

This study examines the relationship between website quality, trust, satisfaction, and loyalty on the online shop in Indonesia. The sampling frame of this study includes 250 customers who have specific criteria such as own credit/debit card and at least purchased twice using online shopping platform. Data are then analyzed using the smart PLS software. The result indicated that website quality influence satisfaction; website quality affects trust; satisfaction influences trust; satisfaction influences loyalty; and trust affects loyalty.

**Keywords:** *Website quality, trust, satisfaction, and loyalty*

#### 1. Introduction

Today, internet usage is a global trend of human life behavior, especially in the business world<sup>1</sup>. Internet users in Indonesia in 2012 ranked 8th in the world, and from the total population of Indonesia as many as 248 million people or 22% of Indonesian people use the internet. In Asia, Indonesia is ranked 4th after China, India, and Japan. In May of 2009, it was noted that the value of internet commerce in Indonesia reached around USD 3.4 billion or around 35 trillion rupiahs, and made Indonesia a potential market for e-Bay<sup>2</sup>. Online transactions, different from offline transactions, are entirely dependent and trust on the information available on the website<sup>3</sup>. The challenge for online business is knowing the customer's desire to create satisfaction, which leads to trust and at the end will impact on loyalty<sup>4</sup>. Characteristics of online business are the extent of cyberspace that can be accessed, unlimited place and time, causes the online store must provide the best service, especially paying attention to the quality of the website and furthermore can affect the satisfaction. The trust factor is a fundamental element of many factors that influence the occurrence of online shopping and buying transactions<sup>4</sup>. Several previous studies have found that online transactions include a comfortable and sophisticated way, but consumer confidence in the company is extremely vulnerable and hard to come<sup>5</sup>. The quality of a website can increase online consumer trust<sup>6</sup>. Sellers who have quality websites, even if they do not have a good reputation, remain more trustworthy than reputable sellers, but poor website quality<sup>7</sup>. The belief in the online shopkeeper's behavior affects customer buying-interest<sup>4</sup>. Although in theory and some studies suggest that service quality will have an impact on customer satisfaction and loyalty, studies are showing that service quality does not affect customer satisfaction<sup>8</sup>.

This study examines the relationship of website quality, trust, satisfaction, and loyalty on the online shop. The rest of the paper is organized into four sections. First section discuss the theoretical background and the relationship between the construct for developing hypotheses. Second, the methodology used in obtaining and analyzing the data. Third section, result and discussion, addresses the hypotheses testing and interpretation. The last section, conclusion, summarize the main point of the result.

## **2. Theoretical Background**

### **2.1. Website Quality and Customer Satisfaction**

One method of measuring website quality based on end-user perception is the development of ServQual, which is widely used previously in the measurement of service quality. Website Quality or commonly called WebQual has been developed since 1998 and has experienced several iterations in the preparation of dimensions and items of questions are arranged in three areas<sup>9</sup>, namely; (1) Quality of information from information systems research. (2) Interaction and quality of services from information systems research, e-commerce, and marketing, and (3) Usability of human-computer interaction. The WebQual model was first used on business school portals based on factors of ease of use, experience, information and communication, and integration<sup>10</sup>. Website quality is determined by five dimensions<sup>11</sup> namely: (1) Information, including quality of content, usability, completeness, accuracy, and relevance. (2) Security, including trust, privacy and security guarantees. (3) Convenience, including easy to operate, easy to understand, and speed. (4) Comfort, including visual appeal, emotional appeal, creative and attractive design, and (5) Quality of service, including online completeness, and customer service.

Consumer satisfaction is a conscious evaluation, or consumer cognitive assessment of a product consumed, whether the performance of the product is relatively good, or whether the product corresponds to the purpose or use of the consumer by his expectations<sup>12</sup>. E-satisfaction is customer satisfaction to previous purchasing experience in an e-commerce trading company<sup>13</sup>. Furthermore, another difference in the online environment is the need to add dimensions in measuring customer satisfaction, which is efficient, flexible, easy to use, aesthetic website and security<sup>13</sup>. Consumer satisfaction is reflected in several ways<sup>14</sup>, namely: (1) consumer emotional condition as a result has been using a product. (2) respect from consumers because it has gained experience from using a product, and (3) the desire to reuse a product. Several previous studies have explained that website quality has a positive influence on customer satisfaction<sup>9,15,16</sup>. However, other research has different results, namely that there is no relationship between a quality website with customer satisfaction<sup>8</sup>. So based on the above description, the hypothesis is proposed as follows: *H1: Website Quality affects Customer Satisfaction.*

### **2.2. Website Quality and Trust**

Conducting online transactions is an easy and sophisticated way, but consumer confidence in the company is very vulnerable and hard to come<sup>5</sup>. However, there is a significant influence on the reputation of the company and the quality of the website to the level of consumer confidence in online transactions<sup>6</sup>. Meanwhile, other findings argue that sellers who have good quality websites, even if they do not have a good reputation, remain more trustworthy than reputable sellers, but poor website quality<sup>7</sup>. So from the explanation, the second hypothesis is: *H2: Website Quality affects Customer Trust.*

### **2.3. Customer Satisfaction and Customer Trust**

Several studies found that there is positive and vigorous direct relationship between customer satisfaction with trust, which means the more satisfied consumers, the more consumers will believe<sup>17</sup>. This is in line with research result stating that customer satisfaction has a relationship with trust<sup>18,19</sup>. The more consumers feel satisfied, the more trust they will be. Based on the description, then the third hypothesis in this study is as follow: *H3: Customer Satisfaction effect on Customer Trust.*

### **2.4. Customer Satisfaction and Customer Loyalty**

In general, customer satisfaction and loyalty have a direct and significant relationship. The more satisfied a consumer is, the more they are loyal. However, studies on software industry showed that there is no significant relationship between customer satisfaction and loyalty<sup>18</sup>. The result of the research contrasts with other research conclusion stating that customer satisfaction has a significant relationship with loyalty, which means more satisfied a consumer, then they will be more loyal too<sup>16</sup>. This is in line with the study by another researcher which reveal that online consumer satisfaction (E-satisfaction) has a significant relationship to the consumer's online loyalty (E-loyalty)<sup>14</sup>. So, based on the description, then the fourth hypothesis is: *H4: Satisfaction affect on Loyalty.*

## 2.5. Customer Trust and Loyalty

From some previous research, it can be seen that the relationship between trust and loyalty. Buying interest is one form of customer loyalty determined by the trust<sup>3</sup>. This is also similar to another result that trust in online shop customers determines to buy interest which is one form of customer loyalty<sup>4</sup>. Based on the description, then the fifth hypothesis in this study are: *H5: Customer Trust affects Customer Loyalty*.

## 3. Methodology

The population of this study is all people who have made purchases in the online shop in Indonesia, and samples of 250 customers with the criteria of having credit/debit card, and have made purchases at the online shop at least twice. The number of samples is determined using the concepts developed by Isaac and Michael, i.e., for determining the number of samples and the unlimited population with a 5% error rate is 249 samples, rounded to 250. Data collection methods are an integral part of the research design. In this study a closed questionnaire was used, using a Likert scale of 1-5, and (1) for statements strongly disagreeing and (5) for statements strongly agreeing on the declaration of the indicator being measured. The analysis used is descriptive analysis with SPSS 16 and Partial Least Square (PLS) with Smart PLS software application program.

## 4. Result and Discussion

### 4.1. Profile Description of Respondents

The study includes online shop objects, no restrictions on online shop types and no restrictions on products purchased online. The number of respondents is 250 respondents and to get the respondents, the questionnaire was distributed five times. Respondents with ages 19-24 years were 102 (41%), the second largest number was age between 30-34 respondents as many as 60 (24%). Moreover, the third is the respondent age between 25-29 years that is as much as 45 (18%). Respondents' distribution by gender are approximately equal, i.e., 47% female and 53% male. Based on the frequency of purchases in the past one year, 88 (35%) stated that they had made three purchases, 60 respondents (24%) have made two purchases, and 57 respondents (23%) have purchased four times. Measurement indicators of each variable have been tested for validity and reliability with the result as shown in Table-1 below.

Table 1. Reliability Measurement

No	Variable	No. of Indicator	Cronbach alpha	Composite Reliability	AVE	Remark
1	<i>Website Quality</i>	10	0,94	0,95	0,71	Reliabel
2	<i>Satisfaction</i>	10	0,96	0,91	0,77	Reliabel
3	<i>Trust</i>	8	0,94	0,95	0,64	Reliabel
4	<i>Loyalty</i>	3	0,85	0,97	0,76	Reliabel

Table 1 shows the value of Cronbach alpha, composite reliability above 0.7 as the recommended value. Also, the average variance extracted (AVE) are above the value of 0.5 as the recommended value limit. Thus, the overall construction of research has a high consistency and deserves further analysis. The Outer model explains the relationship between the indicator and the variable while the inner model explains the relationship between the variables. Outer and inner model as shown in Figure 1, demonstrates that each indicator has a high loading coefficient This finding indicates that the indicator used to measure the model variable are valid. The most significant loading value of web quality is found in the ease of use of the website, such as ease of access, operation, and security in transactions. Satisfaction has the highest loading value on price and cost to get the product or service, which means the majority of customers are satisfied with the price offered by the online shop and the cost to get the product or service. Trust, has the highest loading value on the consistency of online shop customer. Loyalty has the most significant loading on giving recommendations from customers to friends and relatives. Online shop customers who have felt satisfied

and believe in the online shop, will be willing to give recommendations to friends and relatives to visit or conduct transactions online shop subscription. The goodness of fit of this model is measured by the  $Q^2$  which is calculated as follows:  $Q^2 = 1 - (1 - 0.66) (1 - 0.804) (1 - 0.833) = 0.98$ . The result is close to 1.0. This means that the research model has predictive relevance, and it is worth to do further analysis.

#### 4.2. Hypotheses Testing

Testing of the hypothesis is conducted to examine the influence of each variable against other variables. Testing is based on t-value value with the provision that if the value of t-value > 1,960 then the influence of the variable to another variable is stated significant. Table 2 shows that the results of the research hypothesis testing are all acceptable. The result of hypothesis testing showed that Website Quality had a positive effect on Trust. This finding shows that higher the quality of an online shop website will increase consumer trust in the site. Website Quality can describe the capabilities of the online shop in providing optimal services to consumers. For that, when consumers have visited the website then various evaluations of the website will build consumer confidence. The results coincide with the study by previous research that the higher the quality of a website, the higher the trust of consumers<sup>5,7</sup>. The results of hypothesis testing showed that Satisfaction also affects the trust. This finding can be explained that when high consumer satisfaction leads to higher consumer trust. Before interacting with the company, the consumer has a certain amount of expectation of the service to be received.

Tabel 2. Hypothesis testing with t-value

Hypothesis	Original sample estimate	Standard deviation	t-value	remark
Website Quality influence Satisfaction	0,813	0,02	40,64	supported
Website Quality affects Trust	0,252	0,06	4,51	supported
Satisfaction influences Trust	0,696	0,05	13,48	supported
Satisfaction influences Loyalty	0,347	0,08	4,40	supported
Trust affects Loyalty	0,572	0,08	7,10	supported

Therefore, when the company can meet the various needs and desires of consumers cause the higher consumer confidence that the firm can provide the best for consumers. This study proved that satisfaction affects the Trust. However, there is research conducted which showed different results that Satisfaction does not affect the Trust<sup>18</sup>. This is possible because the object of the research is industrial software and the research respondent is the company manager. The satisfaction felt by respondents from the use of software does not affect the trust because the orientation of the performance of the software is the ability to support the manager's job. Satisfaction affects consumer loyalty in making visits to an online shop, with some hope for repeat satisfaction, and consumers will not switch to another online shop<sup>17</sup>. Fulfillment of all the needs and desires of consumers who become the reason to keep visiting and doing online transactions. Trust affects consumer loyalty in making visits to an online shop. High trust reflects low psychological risks from within consumers and causes consumers to stay in an online shop, and research results support<sup>17</sup>.

#### 5. Conclusion

In connection with the aims of this study, it is concluded that website quality in the online shop not only serves as a medium of information but also can be a stimulus visitors interact with the online shop. The

informative website display, the security impression of the website, the ease of operation of the website, the convenience of use, and the quality of excellent service can satisfy the consumers. The informative website display, the security impression of the website, the ease of website operation, the convenience of use, and the quality of the service can increase the consumer's trust in the capability or competence of the online shop in providing the service. The higher satisfaction of consumers increases consumer's trust in online shop competence. There is a tendency of consumer that if they get satisfaction sustainably, they will maintain the visit and interaction with the online shop, not to others.

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## Figure Caption

Figure 1. Outer model dan inner model

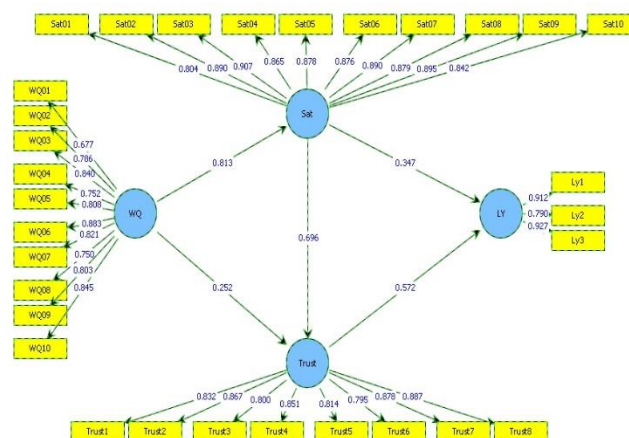


Figure 1. Samuel et al.