Conference Paper

Customer Satisfaction and Service Quality to Develop Trust and Positive Word of Mouth in Vocational Education

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Abstract
This study generally aims to analyze the influence of customer satisfaction and service quality to develop trust and positive word of mouth especially in vocational education. Students in vocational education as well as higher education are considered as an internal customer; therefore, their satisfaction and perception of service quality are potential to bridging the emergence of external satisfaction and customer loyalty. According to previous literature, internal customer satisfaction can be measured by service product, service delivery, and service environment, all of which have a significant relation with trust where trust is significantly related to word of mouth. Meanwhile, the communication, productivity and responsiveness are significant in measuring the perceptions of service quality. This study is expected to enrich managerial implication on how to measure the internal customer satisfaction and service quality toward trust and word of mouth in vocational education. Thus, the vocational education can continue to strive to provide educational service in accordance with the expectations of the customers.

Keywords: component, customer satisfaction, internal customer satisfaction, service quality, trust, word of mouth, vocational education, higher education

1. Introduction
Nowadays, ASEAN countries facing the ASEAN Economic Community, which one of its goal includes cooperation for human resource development and capacity building, also recognition of professional qualifications. To be able to produce professionals that qualified, the role of higher education is needed, especially those who focusing in vocational education. According to the Chairman of the Indonesia Vocational Higher Education Forum, Hotma Prawoto, vocational education is education that builds certified skills, so that prospective workers are protected their rights in a globalized world.
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(“Ready with Vocational Education”, SINDO newspaper, Monday, June 29, 2015). Therefore, the main outcome of vocational education is to produce qualified schoolars and professional both with academic, and practise skill.

Currently, Indonesia has 121 state universities and 3,067 private universities under The Ministry of Research, Technology and Higher Education. Among all the state and private universities, there are 679 vocational studies with diploma degree (diploma I, II, III) in state universities and 2,774 vocational studies in private universities (forlap.dikti.go.id). Numbers of vocational studies between state and private universities automatically creates competition among universities. Unfortunately reputation cannot be considered as the only thing that matter when choosing the universities. There are thing that also matter, especially in vocational education that is how the institution be able to fulfill the needs to improve not only knowledge but also certified skills in specific areas. Aspects of customer value on education services are also a consideration for prospective students in choosing universities (Rahayu, 2011).

In higher education business context, costumer can be defined as a person and/or organization that make payments directly to the university/institute as a form of exchange in the provision of educational services, both in the form of classroom education and research (Cliff, 1994 in Rahayu, 2011). The customer in education business context also makes exchange in order to gain benefit of education. Thus, the concept of customer in higher education can be considered the same as in other business [44, 48]. However, we cannot simplify the concept of education business same with other business in practice. In education business practice, there are steps of process that the customer need to provide before earning an academic degree from a particular university [48], such as lecturing process, academic minimum requirements, thesis writing, or final exam, and others.

Customer in higher education is divided into two types of customer, which are internal and external customer. Internal customers are those who have close and direct interaction with universities and those who work to be able to give satisfaction to the external customer; they are academic staff (lecturer), researchers, non-academic staff, and students (Rahayu, 2011). On the other side, the External Customers are those who have an indirect relationship with the university. Nevertheless they also obtained the benefit from the service provided by the institution and/or contribute to the operational activities of the university (Marzo, Pedraja and Rivera, 2007).

Student in higher education play both role as internal and external customer. Therefore their satisfaction and perception of service quality are potential to bridge the emergence of external satisfaction ([7, 18, 30, 32]; Mahler and Hennessey, 1996) and
customer loyalty [14]. Rahayu (2011) in her research title Internal Customer Satisfaction and Service Quality Toward Trust and Word of Mouth, has proved that customer satisfaction and perceived service quality of a higher education has significant relation with trust where trust is significance related to word of mouth (Rahayu, 2011). However, her research is limited to bachelor, and graduate student in general. Therefore, to enrich findings and managerial implication, this study performed a replication study to examine the consistency of the findings in term of analyzing the influence of customer satisfaction and service quality to develop trust and positive word of mouth especially in vocational education. Thus the vocational education can continue to strive to provide educational service in accordance with the expectations of the customers.

**Table 1: Customer classification on higher education institutions.**

<table>
<thead>
<tr>
<th>Process</th>
<th>Internal Customer</th>
<th>External Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>√ Teaching Staff</td>
<td>√ Student</td>
</tr>
<tr>
<td></td>
<td>√ Administrative and service personnel</td>
<td></td>
</tr>
<tr>
<td>Learning</td>
<td>√ Student</td>
<td>√ Employers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>√ Society</td>
</tr>
<tr>
<td>Research</td>
<td>√ Teaching-research staff</td>
<td>√ Society</td>
</tr>
<tr>
<td></td>
<td>√ Grant holders</td>
<td>√ Public Administration</td>
</tr>
<tr>
<td></td>
<td>√ Administrative and service personnel</td>
<td>√ Non-profit Organization</td>
</tr>
</tbody>
</table>

Source: Mercedes, Pedraja, and Rivera, 2007; Rahayu, 2011.

2. Literature Review

2.1. Customer satisfaction

Customer satisfaction both internal and external is based on the concept of service quality. However, service quality is not produce in a factory and delivers as good. But it produce when the customer interact with service providers to earn the services they require [22]. Therefore, the quality of service is a concept on how to embed the service quality at every phase of services, and involving all personnel in the organization [15].

To evaluate the customer satisfaction, Rust and Olivers (1994) suggest three-component-model, that are service product, service delivery, and service environment.
Rahayu (2011) adapted the model and applied to the context of higher education business, and define the model as follows:

Service product is the substantial quality of services. In higher education context, it includes the main product of education services such, curriculum, competence, reputation, classroom activities, the quality of lecturers, and completeness of teaching materials such as the availability of books, journal, modules in the library (Rahayu, 2011).

Service delivery refers to the functional quality of services. In higher education context, it includes script, rules and manual labor, also the protocol of how the education services are delivered [30] between layers (the universities to internal stakeholders, lecturer to student, and universities to the student) (Rahayu, 2011).

Service environment includes number of dimensions classified into two characteristics [30], which are internal and external environment. Internal environment is a reflection of the identity of an educational institution, including organization’s culture and philosophy that underlie the education services. On the other hand, external environment literary describe physical environment that an educational institution owned, including Infrastructure (parking, lecture building, lab, facilities, discussion rooms, libraries, etc.), Wi-Fi access, cafeteria, bookstore, bank, and others (Rahayu, 2011).

Overall, Rahayu (2011) states that the three-component model proposed by Rust and Oliver (1994) already covering all dimensions of service quality, whereas service product reflects the reliability and technical quality of higher education. While service delivery reflect the functional ability of higher education in terms of responsiveness, assurance, empathy, and a willingness to serve. And finally service environment reflects the quality of the physical environment offered by higher education, covering such teaching and learning facilities as well as supporting infrastructure.

2.2. Service quality

Internal customer satisfaction is closely related to perception comes after receiving services. Therefore perception toward service quality can only be measured by interaction between service provider and customers. To evaluate perception of service quality in higher education context Rahayu (2011) adapted variables offered by Rabinowitz (2006), which are communication, productivity, and responsiveness.
Communication is the ability to communicate and listen effectively. Applied to the context of higher education business, communication variable includes how the universities being able to communicate, to interact positively, and to define the needs of the students. Productivity is the ability to maintain high quality standard of efficiency, reliability, and quality. Therefore, the evaluation process are emphasized on how the universities being able to provide solutions for students with academic issues, and being able to resolve the issues in accordance with the procedure. Responsiveness is the ability to effectively respond to customer needs and requirements. This includes the attitude to treat all student equal, respect, nice and friendly, also to develop mutual understanding between universities and the student.

Through these variables, the universities can see how their student as internal customer perceived the quality of services they provide. These perceptions are somehow gives visualization of performance including the weaknesses and strength that can be utilized to identify area of improvement both in order to maintain and increase the service performance.

2.3. Trust

For nearly two decades, trust has its own role in marketing science. Along with the transition from product-oriented market model to customer-oriented model, marketing activities are now moving to not just delivering a product/service but to build good relationships with their customers (relationship marketing) (Rahayu, 2011).

One of the natures of service is intangible that make trust one of the tools to evaluate customer satisfaction and commitment to the services provided. Trust also one
of the mediators in evaluating the quality of relationship between service providers and their customers. In other words, if customers already trust the services offered by a provider, meaning that they have been convinced of the reliability and integrity of the service providers [16].

Many researchers from different fields of study agreed that trust has significant benefits to a company or brand. Dirks and Ferrin (2001) in the journal, The Role of Trust in Organizational Settings, discussing trust in its role as: (i) the main effect model, and (ii) the moderating effect model. As a main effect model, trust is a perception that arises on outcomes produced by a company/brand. While trust as moderating effect model is how trust can help reduce negative perceptions that arise when a company/brand is doing an inadvertently service failure.

Applied to the context of higher education business, trust represents reliability, integrity, credibility, that is very important in the minds of consumers toward a higher education institution. Due to the fulfillment of the above factors means that higher education institutions must be able to maintain consistency in quality, delivery and the environment. Regarding to vocational education, the institution should be able to provide international and modern curriculum that answer the needs of industry, so the graduates will be valued as professionals appropriate to their expertise.
2.4. Word of mouth (WOM)

Some literature suggests WOM as recommendations/suggestions/feedback/transfer of information about a products or services delivered by consumers to consumers informally [19, 47]. WOM generally occur accidentally through casual conversation during the discussion, emails, texting, short message services (SMS) and others.

Previous studies showed that WOM can influence someone justification toward products or services, and affect their behavior as consumers [17, 19]. Under certain conditions a positive WOM can encourage consumers to choose or switch to particular brand. It happen because, WOM is often become the main reason in the selection of the brand. Some group of consumers are more likely to respond WOM than other marketing communications mix ([6, 19]; in Rahayu, 2011).

WOM communication can occur both positive and negative depending on the experience gained while interacting with providers of products or services. Individuals who feel they have the satisfaction and trust toward a product/service usually will voluntary spread positive WOM and easily make recommendations to others, and vice versa (Rahayu, 2011).

In the end, the recommendations presented by WOM becomes important, because, according to Kumar, Petersen and Leone (2007), valuable customers are the customer that through their word of mouth can bring the most favorable customers; despite on how much they buy for themselves. Since, what the customer perceives and what they are prepared to preach to others about a company/brand can affect both the revenue and profit (Reicheld, 2003), for its significant impact to the purchase intentions [45]. Applied to the context of higher education business positive WOM not only increase benefits of revenue and profit, but also increase and improving the image of higher educational institutions.

3. Theoretical Framework and Hypotheses

This study is a replication study of Rahayu (2011), theoretical framework and measurement tools was re-written and adapted to the need of the research. There are 4 (four) latent variables used in this research, that is Customer Satisfaction (CS), Service Quality (SQ), Trust, and WoM. Also, there are 6 (six) observed variables. Three observed variables for Each of Customer Satisfaction and Service Quality, that is service product, service delivery, and service environment; and, communication, productivity, and responsiveness. Together those variables build a theoretical framework as shown
in Figure 1. According to Figure 1, there are 5 (five) hypotheses to be tested in this study, which constructs as follows.

Trust is the result of self-satisfaction that is created in a consumer (Kim et al., 2008). Trust will also be created when a person has been convinced of the reliability and integrity of a product/service they consumed [34, 52]. In the end, trust is an intermediate variable that bridges the relationship between producers and consumers of a product/service [34]. And trust that comes with it will affect long-term commitment to the creation of purchase intentions [10].

Trust is something that must exist in a marketing services, it is important to be able to maintain a relationship that is built between providers and consumers, because consumers are often faced with the question of where they should decide to buy a service without first being able to try the service. High education is one of the types of education services that are not allowed to try first, and requires long-term delivery process.

Thus becomes important to be able to create satisfaction to consumers of educational services, because if the service received by consumers meet or even exceed the level of satisfaction that is expected, then such satisfaction increasingly strengthen the reliability and integrity of service providers that led to the creation of stronger trust [9, 49].

Any activity that involves WOM will basically related to satisfaction. Where the satisfaction of creating top-quality services and service performance that is expected to create positive WOM produce more outcomes that have a significant impact on customer behavior and purchase intentions [45]. Positive WOM occurs based on satisfaction and otherwise negative WOM appears on dissatisfaction (e.g., [11, 42]). Therefore, hypotheses 1 and 2 are formulated as follow:

**H1:** Customer satisfaction has significant influence to develop positive trust

**H2:** Customer satisfaction has significant influence to develop positive word of mouth (WoM)

In principle, a positive perception of service quality can create positive customer satisfaction. Then together customer satisfaction and service quality create trust and positive word of mouth communication. How the perception of service quality creates positive trust and word of mouth depend on the process of interaction between students and universities [6], how they solve the problem regarding the academic or non-academic issues. The moment both of the student and university member interact each other is called the moment of truth [25]. Thus moment will impact to how a student as
a customer perceived the quality of services. And further will impact their trust that
the universities can solve their problem, and cause positive word of mouth voluntarily.
Therefore, hypotheses 3 and 4 are formulated as follow:

\[ H_3: \text{Service quality has significant influence to develop positive trust} \]

\[ H_4: \text{Service quality has significant influence to develop positive word of mouth (WoM)} \]

Above all, trust is the result of the satisfaction and according to the previous litera-
ture positive trust will create a positive word of mouth. (Kim et al., 2008; [10, 20]; Oh,
2002). Reliability, usefulness, and Effect of a product/services will lead to willingness
to rely on some product/service in which there are constructs that lead to the creation
of positive WOM [46]. The willingness to rely on for some customer can be translated
into the willingness to gives positive recommendation regarding a product/services
[1, 46]. Therefore, hypothesis 5 is formulated as follow:

\[ H_5: \text{Trust has significant influence to develop positive word of mouth} \]

4. Method

This study took place at Vocational Studies of Universitas Indonesia (Vokasi UI). Vokasi
UI has been established since 2008, with aim to produce experts and skilled profes-
sionals in heath, social, and humanure science to address the need of industry. Almost
all of the 15 studies are accredited and has collaborated with wide range of local and
international of industries.

This study use single cross sectional design with quantitative approach. The data
was collected using online questionnaire with snowballing approach. The question-
naire was delivered to student, and the student can conveniently distribute it to their
friends and so on. Total of respondents collected in this study are 200 students.

This study use structural equation modeling (SEM) to test the hypotheses all
together. This statistical analysis was used to estimate the multiple regressions, which
are separate but interconnected together (simultaneously). To see the correlation and
causal relationships between variables, there are some of the indicators that should
be observed as follow: (a) \( t \)-value of the coefficient and parameter, (b) Value of
coefficient/parameter, and (c) The coefficient of determination (R2). \( t \)-value obtained
from the calculation results with the \( t \)-table of the normal distribution table. Criteria
for acceptance are \(-1.96 < t \text{-value} < 1.96\). Value of \( t \text{-value} > 1.96\) indicates that the
hypothesis is supported by research data.
5. Result and Discussion

The research results significant causal relationships between variables. $T$-value from each of the hypotheses are $> 1.96$. Thus, the whole hypothesis proposed in this study significantly supported by the data, indicating that all coefficients have causal relationship one another.

Customer satisfaction has significant influence to develop positive trust ($H_1$, $t$-value = 2.81). This finding support previous literature, states that satisfaction is the true antecedent of trust (Kim et al., 2008), and that the satisfaction and trust are intertwined as relational mediators [16]. However, there is negative significant result in term of customer satisfaction influence to develop positive word of mouth ($H_2$, $t$-value = $-2.31$). This finding indicates that customer satisfaction indeed has significant influence to develop positive word of mouth, nevertheless in vocational education the more satisfy the student the less they would communicate positive word of mouth regarding the institution.

Service quality has significant influence to develop both positive trust ($H_3$, $t$-value = 3.63) and word of mouth ($H_4$, $t$-value = 4.88). These findings reinforces the theory that WOM is one of the variables of customer relationship marketing, which constructs from the experience of interacting in the process of delivery of services, where quality...
of services is one of the factors that valued the most ([6, 23]; Sundaram et al., in Walsh, 2008). Service quality can determine the perception and positive justification of the producers and create positive WOM [17, 25]. Therefore, trust is also significant to develop positive word of mouth \((H_5, t\text{-value} = 4.30)\), since trust is constructed of reliability, integrity, and commitment given by the service provider to a customer (Morgant & Hunt, 1994; [52]; Gabino & Johnson, 1999) that is strengthened by the perception of the quality of services [49].

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>t-value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H_1) Customer satisfaction has significant influence to develop positive trust</td>
<td>2.81</td>
<td>Supported</td>
</tr>
<tr>
<td>(H_2) Customer satisfaction has significant influence to develop positive word of mouth (WoM)</td>
<td>-2.31</td>
<td>Supported</td>
</tr>
<tr>
<td>(H_3) Service quality has significant influence to develop positive trust</td>
<td>3.63</td>
<td>Supported</td>
</tr>
<tr>
<td>(H_4) Service quality has significant influence to develop positive word of mouth (WoM)</td>
<td>4.88</td>
<td>Supported</td>
</tr>
<tr>
<td>(H_5) Trust has significant influence to develop positive word of mouth</td>
<td>4.30</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**6. Conclusion**

Customer satisfactions will eventually bridging the occurrence of trust between customer and producers of a product or services (Morgant & Hunt, 1994). Service quality is also has significant influence to develop trust, since it also one of the factors that influence the satisfaction in service industry [37], and also because it was the antecedent of trust. On the other hand, trust that is develop by believed to the reliability, integrity, and commitment of a service provider that is shown in their process delivery of service, is definitely result to a positive word of mouth communication. Therefore, there is connection between customer satisfaction, service quality, trust, and word of mouth communication (Kim et al., 2008).

Theoretically, satisfaction to the reliability and integrity, also perception toward service quality will formed trust, where the trust will impact to the creation of positive word of mouth for its accumulation effect of fulfilled satisfaction, qualified moment of
truth when interacting with the service providers, also trust that bounding in the heart of the customer.

Vocational education should be able to give the technical, functional and environmental quality that support the education delivery process in order to fulfilled the satisfaction of the customer. Also vocational education needs to maintain qualified moment of truth in all layers and all aspects of education services.

Vocational Studies of Universitas Indonesia (Vokasi UI), as sample used in this study is able to provide technical, functional and an environment quality that supports teaching and learning process in accordance with the level of satisfaction expected by the customers. The significance of the hypothesis tested in this study also indicates that Vokasi UI is able to maintain the reliability, integrity and commitment to service product, service delivery, and service environment that creates a strong trust toward their consumers. Nevertheless, further research should be considered to find out the cause of negative significant result regarding customer satisfaction and word of mouth. This is where managerial needs to take actions to increase the willingness of satisfied students to communicate positive WOM.

According to the perception of service quality, Vokasi UI is able to provide services performance that promote communication, productivity, and responsiveness, by being able to respond effectively to the needs and wants of the customers, by providing excellent services to customers with fast, precise, but still accompanied by credibility, security, competence and courtesy [37, 39]. It can create the future willingness of students to give recommendation or WOM communication. In response to this, the performance of academic services need to be strengthened, considering they were the most forward in dealing with students and other consumers.

Finally, trust has significant influence in creating WOM, it shows that when consumers have confidence toward providers of products/services, where trust is based on the satisfaction and perception of quality of service, then they will be willing to communicate positive word of mouth regarding the product/services. Even recommend it to others. Thus, it becomes important for managers in higher education institution to provide education and academic services that make students believe they can meet the needs and provide solutions to their problems.

References


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