

## **Factors Affecting Customer Satisfaction of Online Bookstore at Universitas Terbuka Indonesia**

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### **Abstract**

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A number of factors presumed to contribute to customer satisfaction include logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics. This study aims to find out whether the logistics support, technological characteristics, characteristics of information, homepage presentation, and product characteristics have influence on customer satisfaction in e-commerce. This study was carried out in Universitas Terbuka (UT) online bookstore. The research analysed 78 completed questionnaires from students as customers of UT's online bookstore. Interviews also were conducted with students, regional office coordinators, and managers of UT's online bookstore to get clarity of information and more in-depth data. The results of the correlation analysis indicated that the logistical support, information characteristics, homepage presentation, and product characteristics of UT's online bookstore correlate with customer satisfaction. Interviews with regional office coordinators and online bookstore managers showed that the UT has to do more orientation and promotion of online bookstore to students, and UT has to ensure the availability of books and prompt delivery.

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*Keywords:* Customer satisfaction, logistical support, technological characteristics, information characteristics, homepage presentation, product characteristics, online bookstore, e-commerce

### **Introduction**

Online bookstore of Open University is the virtual store that have been designed in such a way as to create a pleasant shopping experience with the availability of products of quality choices. UT's online bookstore is one of the

electronic stores where students can choose a variety of teaching materials. In its activities, online bookstore UT has a priority of trying to give consumers the best prices for all modules and to provide a professional service, accurate and fast. This can be seen on the homepage presentation, categorisation module, offering price and promotion, provide a picture of its products and set the display so that customers who visit the site feel comfortable, easy to perform transactions and know clearly the product offered by online bookstores UT.

UT's online bookstore is trying to provide the best price because they do not want to disappoint the customers with product prices that are too high. Unlike other online store, where they only act as a mediator and not having a sufficient supply of products, UT's online bookstore has a centre located in its store Karunika Cooperative, Jalan Cabe Raya Pondok Cabe, Ciputat- Tangerang.

UT's online bookstore could increase the level of customer satisfaction for products and services offered. In the field of electronic commerce, found that as many as five factors believed to affect customer satisfaction in the online store that is in terms of:

- (1) logistical support that is fast product distribution combined with state of the product that is good or not damaged or defective, there is even a full-sale service facilitated by electronic mail in connection with the products purchased
- (2) technological characteristics, that is using the best technology to support its service systems
- (3) information characteristics, that is providing accurate and credible information to customers who visit their site, whether customers who just look at products that will make transactions
- (4) homepage design of UT's online bookstore which is designed to look neat, attractive, and easily understood by people who visit the site
- (5) products characteristics offer approximately 800 types of various products. It offers through the listing on the site, that visitors can find the products easily.

Looking at UT's online bookstores efforts in the form of electronic

commerce, which seems to grow well, and had a good response from online buyers and non-interest online buyers, motivated the authors to analyse whether the five-forming factors of customer satisfaction influence UT's online bookstore or not.

Based on the above background, the following research questions were raised:

Do five-forming factors of customer satisfaction online transactions (logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics) influence customer satisfaction UT's online stores?

As the problems have been formulated, the goal of the research is to address a number of problems, namely:

- a. evaluating the influence of five factors on customer satisfaction in online transactions, including logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics may affect customer satisfaction in UT's online stores
- b. describing the customer characteristics and customer satisfaction of UT's book store.

The benefits of the research is to support the development of science in today's era of globalisation, especially in the field of electronic commerce with customer satisfaction, so that it can be used as a reference for other researchers who will develop the research results in the future. Another benefit is the contribution of thought to be used as guidance in implementing strategies and policies that will take the open university in order to provide services that enhance student satisfaction and accessibility.

## **Literature Review**

## Electronic Commerce

show that electronic marketing is a widespread application of information technology:

to change marketing strategies to better create customer value through segmentation, targeting, differentiation, and positioning strategies are effective

to implement a concept, distribution, promotion, and the determination of the price of goods, services, and ideas that are efficient and

to create a satisfying change of each customer.

The definition is more like the definition of traditional marketing, but to see clearly the electronic marketing is application of information technology to traditional marketing, mention that electronic marketing affects traditional marketing in two ways: First, improve the efficiency of electronic marketing from traditional marketing functions. Second, the technology of electronic marketing changes a lot of marketing strategy. The results of these changes in the business models add new customer value and improve corporate profitability.

The term “electronic commerce” first used by , which is as one kind of modernised business model in order to reduce the costs, to improve the products and service quality, and to increase transmitting speed. In addition, identified e-commerce as “a dynamic set of technologies, applications, and business process that link enterprise, consumers, and communities through electronic transactions and the electronic exchange of goods, services, and information”. Furthermore, emphasised electronic commerce as “sharing business information, maintaining business relationship, and conducting business transactions by means of communication networks.”

According to, essentially "electronic dealers are doing business online. In the most obvious forms of electronic commerce to sell products to consumers online, but in fact any type of business conducted electronically is electronic trading. The simple electronic commerce is to create, manage and extend

commercial relationships online".

From some points mentioned above, it could be concluded that electronic commerce generally refers to all forms of trafficking, which are carried out both by organisations and individuals through the process and the transmission of digital data and conducted online. According to , electronic commerce has a different definition, depending on which side we ask:

- From the perspective of communications, electronic trading is a transmission of information, products or services, computer network, or other similar purposes.
- From the perspective of business processes, electronic trading is the application of the technology used for the automation of business processes and how they work.
- From the perspective of services or service, electronic commerce is a tool that shows where the company, customers, data management services to cut costs when they make improvements in product quality and increase the speed of product delivery.
- From the perspective of online, electronic trade. To provide facilities to make the purchase and sale of products and information through the internet and other online services.

and say that electronic commerce is how to deal with the network, and mostly through the internet, as well as a process of buying and selling goods, services, and information electronically. According to electronic commerce transactions is the exchange that occurs when one party sells a product or service to any other party. The transaction occurs when a product or service is transferred via a separate media technologies that connect between a consumers (client) with a producer (server). When the transaction from the buyer/seller occurs within or electronically, information transaction occurs, absorbed, directed, and used in various ways.

From the points mentioned above, it could be concluded that "electronic commerce generally refers to all forms of transactions relating to commercial

activities, which is carried out both by organisations and individuals through the process and the transmission of digital data including text, sound, and images online".

### **Customer Satisfaction**

Today's attention to customer satisfaction is essential and must be observed by all parties in implementing and maintaining the viability of their business, based on intense competition that is always happening in the business world in the era of globalisation, companies must put its main goal in customer satisfaction. It is reflected in the increasing number of companies that include commitment to the satisfaction of mission statements, advertising and public relations. Even more believed that the key to winning the competition is to provide value and satisfaction to customers through products and quality services at competitive rates. Satisfaction is important to the individual consumer because it reflects a positive outcome from the outlay of scarce resources and/or the fulfilment of unmet needs.

According to, customer satisfaction depends on the relative performance of the product for buyers expectations. Each customer would have experienced a various level of satisfaction. If the performance of the product is not in line with expectations, the customer will be dissatisfied. If the performance of the product according to even exceed the expectations, the customer will feel satisfied and happy. Customer expectations can be shaped by past experiences, comments from relatives and friends and the promise and information from marketers and competitors. A satisfied customer will be loyal longer, less sensitive to price and give good comments about the companies. Understanding customer satisfaction according to, customer satisfaction will be created if the services provided by the company and that will be accepted by the customer is higher than customer expectations. To create excellent service and to create customer satisfaction to the company needs to implement the importance of factors to be always fulfilling customer promises and guarantees in accordance with ability.

To form the company's customer loyalty is to marketing friendship. According to a marketing company, friendship is not only oriented to find a buyer and sell the products but also develop a long-term relationship with

customers. According to consumer/ customer is the person who brought us what he/she wants and it is our duty to fulfill these desires in order to benefit him/her and for ourselves. In making purchases, it must have a motivated person who encouraged him/her to make the purchase. Motivated person will realise the behaviour directed at achieving goal satisfaction while behaviour directed at a goal is influenced by one's perception or view.

According to, a motivated person is one who is ready to perform an action. Someone who is motivated to do something is influenced by the perception of the situation. It is seen that the relationship between motivation and perception is very strong because consumers will be motivated and take action after being influenced by perception. Bezos, a president from Amazon.com, says that "If you have a customer who is not satisfied or does not like the internet, he would not tell on six of his friends, he would tell his 6000 friends".

Nowadays, the internet offers a benefit which helps consumers to become more efficient and effective toward online shopping. According to, consumer's satisfaction can be enhanced in online shopping environment by providing access to product- related information; saving consumer time effort and money; and giving a more advanced shopping experience. Customer satisfaction of course is a critical issue in the success of any business system, traditional or electronic commerce. The researchers have focused on discussions of the predictors of customer satisfaction. According to , there are five gaps of service quality in traditional commerce between customers' expectation and actual performances, and ten determinants of service quality. These determinants are reliability, responsiveness, competences, access, courtesy, communication, credibility, security, understanding the customers, and tangibles. In addition, a number of criteria that customers use in evaluating web sites in general and service quality delivery through web site in particular have been identified. These include: information availability and content, ease of use or usability, privacy/security, graphic style, and fulfillment. mention the factors to assess satisfaction in the field of e-commerce as many as five factors, namely:

- ✓ Logistics support, (1) gives rapid response to customer needs (2)
- ✓ Provides facilities to the customer on communication channels (via e-

- mail or fax) (3) gives fast delivery to customers, and (4) provide assistance after the purchase (after sales service).
- ✓ Technological support (1) provides modem computer technology and network facilities, and (2) structured information systems. Information characteristics (1) provide the exchange of reliable information and
  - ✓ (2) secure transaction.
  - ✓ Homepage presentation contains a provision (1) ease of use of the site and (2) detailed information of products
  - ✓ Product characteristics, containing (1) product variety and (2) the price of products.

## **Research Design**

### **Sample and Procedure**

The subject of analysis of the model is primarily through appropriate relations problems, namely: i) influence of logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics on customer satisfaction of UT's online book stores, and ii) the influence of student characteristics on customer satisfaction.

Population studies were UT students who become customers of e-bookstore from the year of academic registration 2005.1 to 2008.2. Primary data were collected from students' responses to questionnaire while secondary data were collected by tracing the customer data UT's online bookstore recorded at UT's Computer Centre.

A comprehensive survey was distributed through mail and web to each person who had purchased books from UT's online bookstore and had agreed to participate in the study. Although the respondents were volunteers, they were assured that their individual responses would be treated as confidential. Twenty seven items of questionnaires were sent to respondents. A total of 78 completed questionnaires from 180 respondents were returned to the researchers.

Table: Instrument Design

Variable	Objective	Indicator	Parameter
Logistical support (X1)	The services of UT's online bookstore	1. Respond 2. Communication channel 3. Distribution 4. After sales services	<ul style="list-style-type: none"> <li>• Quick response to customers' needs</li> <li>• Providing communication channel for customers</li> <li>• Quick delivery of books for customers</li> <li>• Providing after service</li> </ul>
Technological characteristic (X2)	Technological support	1. The importance of providing modem computer and network facilities	<ul style="list-style-type: none"> <li>- None</li> <li>- Far</li> <li>- Close</li> <li>- Unavailable</li> <li>- Available at home</li> </ul>
		2. Well-structured information system	<ul style="list-style-type: none"> <li>- Available at work</li> </ul>
Information characteristic (X3)	Type of services that are provided by UT's online bookstore	1. Reliable output information 2. The importance of secure transaction	<ul style="list-style-type: none"> <li>- Trustworthy</li> <li>- non-trustworthy</li> <li>- Secure</li> <li>- Insecure</li> </ul>
Homepage presentation (X4)	Homepage lay - out	1. Easy to use the interface 2. Traceable 3. Detailed information of books	<ul style="list-style-type: none"> <li>- Easy to use</li> <li>- Difficult to use</li> <li>- Easy to be traced</li> <li>- Difficult to be traced</li> <li>- Detailed</li> <li>- Not detailed</li> </ul>
Product characteristic (X5)	Variety and price of books	1. Variety of books 2. Lower price for books	<ul style="list-style-type: none"> <li>- More variety</li> <li>- Less variety</li> <li>- Expensive</li> <li>- Cheap</li> </ul>
Customer satisfaction (Y)	Evaluation of customers' satisfaction	1. High degree of satisfaction	<ul style="list-style-type: none"> <li>- Satisfied</li> <li>- Not satisfied</li> </ul>

All items used a five -point Likert-type scale ranging from (1) “strongly disagree” to (5) “strongly agree”. Single item questions were used to ascertain respondents' gender, age, domicile, and internet experience. Based on the 78 completed responses, the data were examined using non-parametric correlation analysis with SPSS 19.

## Results and Discussion

### Profile

**Table: Profile of Respondents**

Profiles	Respondents	Percentages (%)
Gender	Male	43.6
	Female	12.8
Age	18-25	15.4
	26 30	21.8
	31 -35	30.8
	More than 36	30.8
Occupation	Public servant	23.1
	Private sector	24.4
	Entrepreneur	7.7

Source: Data processed

The table shows that most respondents are men (34 or 43.6% of the total respondents of 78 people). Overall, respondents numbered 78 people, but 34 people who came from an online survey did not fill out questionnaires' gender. It also shows that most respondents were older than 31 years (48 people or 61.6% of the total respondents of 78). Furthermore, the Table above shows that most respondents work in private sector (19 people or 24.4% of the total respondents of 78 people). The overall percentage is not 100%, because some of the respondents did not fill in the profile section.

### Customer Characteristics and Customer Satisfaction

Table: Customer Characteristics and Customer Satisfaction

Customer Satisfaction		Domicile			Age				Internet experiences				
		Java Island	Urban Area	Rural Area	18 - 25 years	26 - 30 years	31 - 35 years	> 36 years	1 - 3 years	4 - 6 years	> 6 years		
	<b>Total*</b>												
Customer satisfaction	48	25	42	6	16	12	9	10	23	11	13		
Very disappointed	1	0	1	0	1	0	0	0	1	0	0		
Disappointed	6	5	5	1	1	1	2	2	3	1	2		
Neutral	14	9	11	3	7	3	1	3	5	4	5		
Satisfied	22	8	20	2	6	7	4	4	11	5	5		
Very satisfied	5	3	5	0	1	1	2	1	3	1	1		
	10.40%	12.00%	11.90%	0.00%	6.30%	8.30%	22.20%	10.00%	13.00%	9.10%	7.70%		
	29.20%	36.00%	26.20%	50.00%	43.80%	25.00%	11.10%	30.00%	21.70%	36.40%	38.5		
	2.10%	0.00%	2.40%	0.00%	6.30%	0.00%	0.00%	0.00%	4.30%	0.00%	0.00%		0.00
	12.50%	20.00%	11.90%	16.70%	6.30%	8.30%	22.20%	20.00%	13.00%	9.10%	15.4		
	29.20%	36.00%	26.20%	50.00%	43.80%	25.00%	11.10%	30.00%	21.70%	36.40%	38.5		
	45.80%	32.00%	47.60%	33.30%	37.50%	58.30%	44.40%	40.00%	47.80%	45.50%	38.5		
	5	3	5	0	1	1	2	1	3	1	1		
	10.40%	12.00%	11.90%	0.00%	6.30%	8.30%	22.20%	10.00%	13.00%	9.10%	7.70%		

Table 3 shows that the customers who live both in Java Island and urban areas are mostly satisfied with the online bookstore. One of the reasons is the fast delivery of learning materials to their address. It is most common that delivery companies send the books easily in big cities in Java Island. But on the other hand, the customers who live outside Java Island and in rural areas find it more difficult to receive their orders because of difficult transportation or unreachable areas by delivery services. In addition, Table 2 also assumes that the least internet experience of customers shows satisfaction of the online bookstore service. It is due to the simplicity and ease of use of the homepage of online bookstore.

### **Descriptive Analysis**

From the descriptive analysis and calculations for each of the questions contained in the questionnaire it can be seen that the majority of respondents in the study showed the attitude of 'totally agree or strongly agree' to each statement in the questionnaire. Results from the above analysis also showed that most respondents admitted satisfaction with the services provided by UT's online bookstore for online purchase. From the above analysis, the UT's online bookstore provides:

- ✓ rapid response to customer needs
- ✓ a good medium of communication to customers
- ✓ quick delivery
- ✓ after-sales service is good
- ✓ gives quick access to their website
- ✓ uses grouping (database) well-ordered books
- ✓ provides reliable information
- ✓ provides security in online transactions
- ✓ homepage is easy to understand
- ✓ homepage is easily traced
- ✓ homepage provides complete information about the product
- ✓ products offered have many variations
- ✓ prices of products offered are cheaper than other online stores
- ✓ overall, customers were satisfied with the services provided by UT's online bookstore.

## Analysis of Correlation

From the data obtained, the calculations were done using SPSS version 19.0 I find out the correlation among logistical support, technological characteristics, information characteristics, homepage presentation, product, characteristics and customer satisfaction.

**Table: Correlation of Logistical Support, Technological Characteristics, information Characteristics, Homepage Presentation, Product Characteristics and Customer Satisfaction**

Variable	Kendall's tau b	X1	X2	X3	X4	X5	Y
X1	Correlation Coefficient	1.000	.392**	.344**	.410**	.493**	.438**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
X2	Correlation Coefficient	.392**	1.000	.473**	.632**	.356**	.337**
	Sig. (2-tailed)	.000		.000	.000	.000	.001
X3	Correlation Coefficient	.344**	.473*	1.000	.550**	.246*	.234*
	Sig. (2-tailed)	.000	.000		.000	.012	.017
X4	Correlation Coefficient	.410**	.632*	.550**	1.000	.504**	.386**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
X5	Correlation Coefficient	.493**	.356**	.246**	.504**	1.000	.352**
	Sig. (2-tailed)	.000	.000	.012	.000		.000
Y	Correlation Coefficient	.438**	.337**	.234*	.386**	.352**	1.000
	Sig. (2-tailed)	.000	.001	.017	.000	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed)

It was found that logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics are determinants of customer satisfaction. These factors and customer satisfaction were significantly correlated. It was indicated by Kendall's tau b correlation coefficient values.

## Conclusion and Recommendations

From the analysis, it can be concluded that:

- a. Customer satisfaction of UT's online bookstore is significantly influenced by logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics.
- b. Among the five determinants of customer satisfaction, the logistical support has the greatest influence on customer satisfaction. It can be seen that the value of the Kendall's tau\_b (0.438) and Spearman's rho (0.492) correlation coefficient for logistical support are higher than the correlation coefficient of the four other determinants.
- c. There is one independent variable (information characteristics) that has low effect partially on customer satisfaction. This is probably due to some respondents feeling that the information characteristics in UT's online bookstore are confusing, complicated and unreliable.

Given the impact of logistical support, technological characteristics, information characteristics, homepage presentation, and product characteristics and customer satisfaction, the UT's online bookstore is expected to increase customer satisfaction by improving the quality of logistical support, technological characteristics, information characteristics, homepage presentation, and the product characteristics so that customers can feel satisfied with the purchase of books at UT's online bookstores. Alternatively, some efforts must be made:

- a. Logistical support, to enhance rapid response to customer demand for one facility by adding the 24-hour hotline, and the ability to provide good delivery of the timeliness and integrity of books. Books are not damaged or defective during shipping. The UT's online bookstore and the service delivery agents must have delivery service insurance.
- b. Technological support, always updating their technology to support an efficient use of their online transactions to its website from the defensive sabotage/hackers and the ability to provide fast access without unduly burdening the customer who entered the site due

- security network system.
- c. Information characteristics, by adding a payment facility by credit card, provide data of new products continuously, accurate, and quickly, including sending an e-mail of a new product to its customers.
  - d. Homepage characteristic, always doing maintenance on its website on a regular basis so that customers who access the UT's online bookstore always feel comfortable and satisfied. The product information is up to date by grouping books neatly on the homepage.
  - e. Product characteristics, providing or offering best products in terms of warranty, quality, and competitive prices. UT's online bookstore UT can provide such programs 10% discount for the second purchase or buy 1 get 1 promotion.
  - f. UT's online bookstore UT is expected to give more attention to the logistical support, because it has the greatest influence in shaping customer satisfaction.
  - g. UT's online bookstore does not provide after sales service that can satisfy the customer. Therefore, online bookstore shall provide after sales sendee to customers.
  - h. The price in UT's online bookstore cannot be claimed much cheaper than competitors, because customers do not give a high value on these aspects. This means that UT's online bookstores also have to pursue the lower price level considered by customers.

## References

- Baum, D. (1999). Business links. *Oracle Magazine, No. 3 Vol. XIII, May/June*, 36-44.
- Cook, S. (1997). *Customer Care, Howto Improve Competitiveness, Staff Motivation and Profitability in Today's Service-Driven of Organization* . London: Clays Lt d.
- Coulson, A. (1999). Electronic commerce: the ever -evolving online marketplace. *IEEE Communications Magazine, 37 (9)*, 58 -60. doi: 10.1109/35.790863

- Ho, C. -F., & Wu, W. -H. (1999). "Antecedents of customer satisfaction on the internet: An empirical study of online shopping. " Paper presented at the 32nd Hawaii International Conference on System Sciences, Hawaii - USA.
- Kalakota, R., & Whinston, A. B. (1996). *Frontiers of Electronic Commerce*. Reading, Mass: Addison -Wesley Pub. Co.
- Kienan, B. (2000). *Small Business Solutions E -commerce*. Redmond, Washington : Microsoft Press.
- Kotler, P. (2009). *Marketing Management*. Toronto: Pearson Canada.
- Parasuraman, A., Zeithami, V. A., & Malhotra, A. (2002). Service quality delivery through Web sites: a critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362-375. doi: 10.1177/009207002236911
- Parasuraman, A., Zeithami, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Ronald, E. M., & Kevin, H. M. (1998). The Internet as a Marketing Tool. *Journal of Marketing Theory and Practice*, 6(3), 1.
- Strauss, J., Ansary, A. I., & Frost, R. (2003). *E-marketing*. Upper Saddle River, NJ: Prentice Hall.