

# The Determinants of Indonesian Railway Online Ticketing Services in Indonesia

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**Abstract:** The aim of the research examined the factors that forming the quality of online services ticketing at PT KAI in Indonesia. In this research using factor analysis, factors that forming the quality of online services ticketing on PT KAI consisting of navigability, playfulness, information quality, trust, personalization, responsiveness, efficiency, system availability, and privacy in general show good condition. The dominant factor in forming the quality of online services ticketing on PT KAI is information quality.

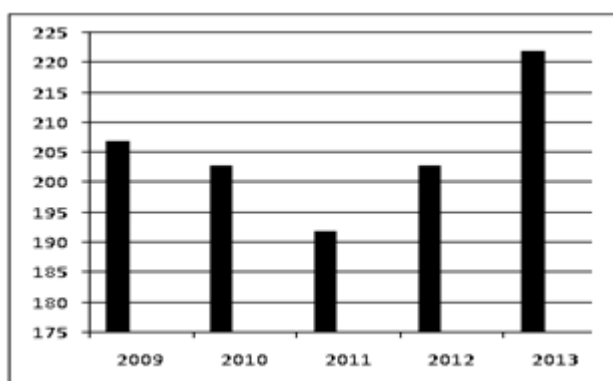
**Keywords:** quality of online services ticketing, railway transportation, factor analysis

## 1. Introduction

Transportation had enormous influence in the economic aspect. Economy growing toward globalization need its high mobility, so people are getting jelly in choosing means of transport will be used. Many companies transportation offer and try to seize interest consumers to use products or services offered by of a transportation company.

Schnaars in Tjiptono (2011), basically the purpose of a business is to create the consumers who are satisfied. Satisfied consumer will be achieved when the quality products or services given by a company in conformity with the consumer's wishes because the quality of services very depends on who and how that service given.

PT Kereta Api Indonesia (Persero) or later called KAI is one of state-owned company which are engaged in the mainland railway transport services in order to facilitate the displacement people or goods in mass in order to support national development. KAI provides transportation for passengers in Java, South Sumatra, West Sumatra, and North Sumatra. Train appear to reach by the people in Indonesia. Fluctuations the rise and fall the number of trains passengers can be seen in Table 1.



**Table 1:** Total Passangers of PT.KAI for Year 2009-2013 (In Million)

Source: Annual Report KAI for The End of Year 2013

The government showed concern in focusing on service to train users as this demonstrates on the regulation of tickets in the act of Number 23/2007 about railway transportation. KAI run the online ticketing system (online reservation ticket to passengers who will use the railway services). With the online ticketing system, the ticket was sold through the external channel company as in agent, this online banking payment and banks atm had become partner with. Research conducted by Septianita, Winarno, and Arif (2014) said that the quality of the system, the quality of information, and the quality of service, that they all fit a positive influence on the users satisfaction. According to Jayanthi, Ramya, & Raja (2014), companies that moved in the services sector growing by the existence of advanced technology in the world of business like the internet. Profit made from electronic ticket on merit train transportation of the other is promotion online, reduction employees sale or ticketing, reduce the print tickets conventional, reduce the cost of purchases tickets, and save time for those. Electronic ticket had some limits, first, many those who do not use the internet. Second, a certain amount of time and hardship of use the electronic ticket were actually might be important, especially for internet users who lacking the experience.

Based on the discussion which have been explained earlier, then the researcher interested to do research on analysis of the factors that determine the quality of online ticketing services on railway transportation in Indonesia, so that this research entitled "The Determinants of Railway Online Ticketing Services in Indonesia".

## 2. Review of Literature

**Electronic Service Quality:** According to Parasuraman et al (2005) said that e-service quality is defined broadly to encompass all phases of a customer's interactions with a website: the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery. Based on a number of literature reviews the existing showed that a latest study found a lot of difference dimensions was used to measure the quality of services electronic in various different fields as shown on Table 2.

**Table 2:** LiteraturReviews of Electronic Service Dimensions

<i>Author(s)</i>	<i>Dimensions</i>	<i>Context</i>
Dabholkar (1996)	Speed delivery,ease of use, realiability, conformity, and Control.	<i>E-Service</i>
Szymanski &Hise (2000)	Online conformity, information ofproduct, web design, andfinancial secure.	<i>E-Satisfaction</i>
Zeithaml, et al. (2000)	Access, ease ofnavigation, efficiency, flexibility, reliability, personalization, privacy, responsiveness, assurance, aesthetics,web and price knowledge.	<i>E-service</i>
Kaynama& Black (2000)	Content, access, navigation, design, response, background andpersonalization.	<i>Elektronik Retailing</i>
Yoo&Donthu (2001)	Ease of use, aesthetics design, speed processing and security.	<i>Website Quality</i>
Barnes &Vidgen (2002)	Usability, desain, informasi, trust and empathy	<i>Website Quality</i>
Liljander, et al. (2002)	Web design and content,trust, empathyand security	<i>E-Quality</i>
Janda, et al. (2002)	Performance, access, security, sensationand information	<i>Elektronik Retailing Service</i>
Zeithaml, et al. (2002)	Efficiency, reliability, fulfillment,privacy, responsiveness, compensationand contact.	<i>E-service</i>
Wolfenbarger&Gilly (2003)	Fulfillment/reliability, website design, customer servicesand privacy.	<i>Elektronik Shopping Sites</i>

Source: Tjiptono (2011)

**Online Ticketing:** Online ticketing service (online ticket reservation) is a web-based service which is one of the examples of e-commerce. According to Turban (2004), e-commerce is the process of buying, selling, transfer or exchange of products, services and information via computer networks including the internet. According to Koppius et al (2005) electronic ticket is a system the sales of tickets online in this context is train tickets. The sales of tickets online that allows customers to be able to do the purchase without have to visit the locket train or agents of the ticket sales. Consumers needing only to an internet connection to be connected with a system of ticket sales the intended online, that way the customer can gather information about the will depart, seating configuration, do the booking tickets, buy a ticket on the whole those activities can be done by using an internet connection. In addition, consumers also able to make the payments directly at the website the through the transfer through a bank referred or through credit card. After the the payment is received, consumers will receive code booking a ticket redeemable at the printing press tickets machine in station to get tickets railway travel. So, people did not have to a waste of time to go to place the ticket sale, visit travel agents who sells tickets only to do the process of purchasing. Previous research conducted by Septianita, Winarno, and Arif (2014) stating that the quality of system, the quality of information and the quality of services all have leverage positive on satisfaction users. Batagan, Pocovnicu, and Capisizzu (2009) said that e-service offer speed, efficiency, flexibility and innovation to the user. Parasuraman, Zeithaml, and Malhotra (2005) said that e-service quality has links with perceived value and

loyalty intentions. Li, Liu , and Suomi (2009) said that the perception the quality of traditional services based on evaluation interaction between providers and customers, perception of the quality of online services was commonly based on the evaluation of interactions between customers and a user interface. Every online providers standard uses interface and technology for their customers. Jain & Kumar (2011) said that dimension e-service quality yield four the main factor of that is efficiency, responsiveness, privacy, security and reliability. Based on the research, privacy and security is strongest dimensions followed by efficiency, responsiveness, privacy and reliability. In addition, manager has got to build strategy that is appropriate to increase the speed and availability website 24 hours. Kandampully and Nusair (2008) stated that there are some antecedent to customer satisfaction in the use of online travel services namely: navigability, playfulness, quality of information, trust, personalization, and responsiveness. Jain & Kumar (2011) said that dimension e-service quality yield four the main factor of that is efficiency, responsiveness, privacy, security and reliability. While Zeithaml (2002) and Parasuraman et al (2005) in Jain & Kumar (2011), has suggested there are four dimension in electronic the quality of service that is efficiency, fulfillment, system availability, and privacy. The quality of services online ticketing in this research using 10 variables i.e. navigability, playfulness, quality information, trust, personalization, responsiveness, efficiency, system availability, and privacy. Research paradigm can be seen from next figure.

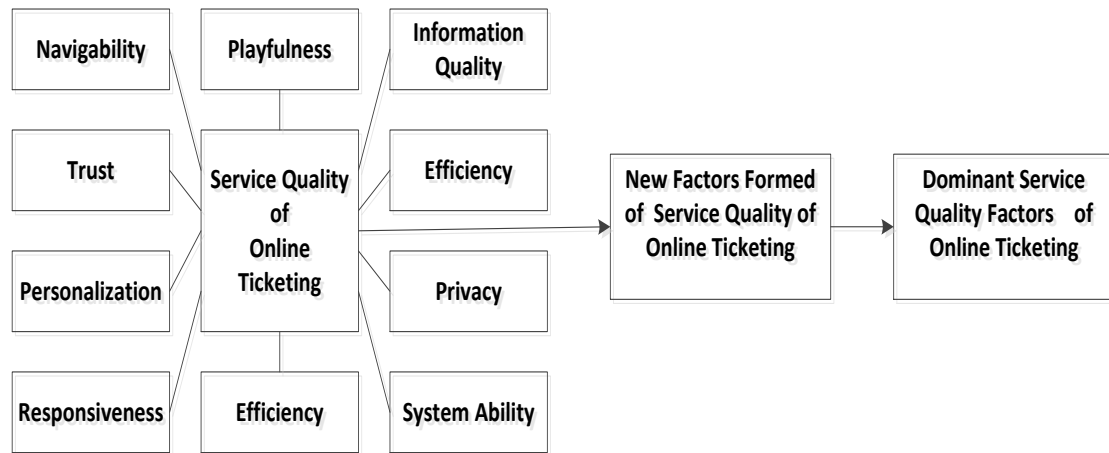


Figure 1: Research Framework

Based on the reserach framework and problems research, it can be formulated hypothesis as follows: navigability, playfulness, information quality, trust, personalization, responsiveness, efficiency, system availability, and privacy form the quality of services online ticketing.

### 3. Research Methods

A method of this research is quantitative research methodology. According to Sugiyono (2014) a method of quantitative research can be defined as a method of research based on the philosophy of positivism, used to scrutinize in the population or a given sample of, data collection using research instruments, data analysis is quantitative/statistics, with the aim of test the hypothesis that has been set. The type of research is deskriptive research. Descriptive analysis done to review and been able to explain characteristic variables investigated in a situation. The purpose of this analysis is given a history of research or to describe aspects relevant to the attention from the perspective of someone, organization, orientation industry, or other (Sekaran, 2010). The scale used in this research was ordinal scale. Ordinal is scale basis of ranking in which the given to an object to identify degrees relatively characteristic of objects. So made it possible for us to determine whether an object have characteristic more or

characteristic of less than some other objects (Malhotra, 2010). Based on the formulation of problems so variable to be used is variables form the quality of services online ticketing consisting of variable navigability, playfulness, information quality, trust, personalization, responsiveness, efficiency, system availability, and privacy.

#### Sampl Selection

According to Malhotra (2010), sample is sub group element of the population chosen to participate in the study. In this research, sample taken from the customers ever held a transaction use the service of online reservation ticket in reservations train ticket in Indonesia, consumers used as population research were 88.691.733 consumers per year 2013 for all the purpose of the train (source: internal data KAI for year 2013). Based on the Slovin formula, the sample of the minimum obtained was as many as 400 respondents.

#### Result

Data analysis was conducted by factor analysis. The constructs were, also tested for validity and reliability and were found to be relatively sound. Then, the proposed model was tested using SPSS.

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.17653	20.3	20.3	2.17653	20.3	20.3
2	1.98331	17.6	37.9	1.98331	17.6	37.9
3	1.88445	11.8	49.7	1.88445	11.8	49.7
4	1.70236	10.7	60.4	1.70236	10.7	60.4
5	1.67492	9.9	70.3	1.67492	9.9	70.3
6	1.41418	8.9	79.2	1.41418	8.9	79.2
7	1.62761	7.8	87.0	1.62761	7.8	87.0
8	1.39638	6.7	93.7	1.39638	6.7	93.7
9	1.10132	6.3	100.0	1.10132	6.3	100.0

**Table 4: Component Factor**

Atributes	Component
	1
navigability	.663
playfulness	.458
information quality	.858
trust	.682
personalization	.673
responsiveness	.570
efficiency	.439
system availability	.793
privacy	.579

#### 4. Conclusion

Resumes of the research is that factors forming the quality of online services ticketing on KAI consisting of navigability, playfulness, information quality, trust, personalization, responsiveness, efficiency, system availability, and privacy in general show good condition. The dominant factor in forming the quality of online services ticketing on kai is information quality

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