Services Innovation Impact to Customer Satisfaction and Customer Value Enhancement in Airport

James K.C. Chen, Ya-Wen Yu, Javkhuu Batnasan
Department of Business Administration, Asia University, Taichung, Taiwan

Abstract--**Serving public transportation needs is crucial issues in every country, especially for air transport which transport is convenient, speediness, comfortable, and reliable traffics. The purpose of research creates an evaluation model for services innovation impact to customer satisfaction and customer value enhancement in airport. The research objective examines which factors influence to customer satisfaction, testing relationship between customer satisfaction and customer value, and evaluation services innovation moderating efficiency impact to enhancement customer values. Data collected through online using two months collection 300 samples. The method of analyzed by reliability, validity test, exploratory factor analysis and Structural Equation Modeling.**

The results appear customer value was influenced by customer satisfaction and service innovation. Among the all three variables as security check has the highest influence on customer satisfaction. This study utilizes self-check-in kiosk, X-ray, social media communication, and micro-hotels as services innovation items in airport. The result indicated all four services innovation events revealed positive moderation effect. The security check was as the most important evaluation factor in airport service, which factor aroused the most satisfied customers while airport accessibility ranked second.

I. INTRODUCTION

Air transport plays a vital role in moving people or products from one location to another-domestic or international. Additionally, air transport is one of the vital means to recommend within every country to travel when it is separated by difficult landscape. An economy gains large amount of incomparable benefits from airport industry. Airport promotes an improved quality of life and helps to improve living standards. The most important contribution the air transport industry has made in any given country and the global economy is its impact on the performance of other businesses as a means of growth.

Air transport industry impact and efficacy on the improvement of other businesses across the whole continuum of economic activity can be best seen through the benefits such as a catalyst of world trade, air transport's significance for tourism, air transport's contributions towards global productivity, its efficacy and efficiency towards the supply chain, as an enabler of investment regionally and globally, as a stimulus for innovation and providing consumer welfare benefits

Many scholars have highlighted customer value and managing by customer value as the next source of competitive advantage for modern companies [1-4]. Customer value in management literature can be divided into two categories customer desired value and customer perceived value. According to Van Der Haart, Kemp, & Omta [5] defined the customer value concept assesses the value a product or service offers to a customer, taking all its tangible and intangible features into account. On the other hand, customer perceived value considered customer value as "value is some combination of what is received and what is sacrificed" [6].

This research focuses on passenger aspects of an airport's customers and the purposes of this research are (1) to investigate the most influential factors for gaining customer satisfaction, (2) to investigate the relationship between customer satisfaction and customer value, (3) to investigate the moderating effect of service innovation impact to enhancement customer value. The each these objectives, a survey-based quantitative research method were employed to collect data from those passengers served by different airports. This study explores the relationship between these factors (airport accessibility, security check, Terminal facilities) and customer satisfaction and the effect of moderating variable service innovation influence to relationship between customer satisfaction and customer value. This study used a quantitative research method and based on a sample of 300 passengers who have experience with served by airport. Structural equation model (SEM) was employed to analyze relationships between variables and examines the hypothesis testing.

II. LITERATURE REVIEW

A. Overview of Airport Industry

The worldwide market for airport services exceeded $102 billion in 2012, having recorded 3% annual growth for the four preceding years, reports market line. Market volume saw an almost 2% increase over the same four-year period. Entry and exit costs are high in this market, and airport industry is nationally concentrated with a few large companies dominating. The USA leads the global airport industry, with the highest number of airports, reports Xerfi. Most of the world's airports are located within the EU, North America and Asia [7]. According to the World Factbook [8], there are totally 43,794 Airports in the world. The top 10 airports by passengers are:

TABLE I
TOP 10 AIRPORTS BY PASSENGERS OF GLOBAL

	Airports	Passengers
1.	Atlanta (ATL)	95.672.104
2.	Beijing (PEK)	81.908.740
3.	London (LHR)	70.051.902
4.	Tokyo (HND)	67.824.747
5.	Chicago (ORD)	67.124.607
6.	Los Angeles (LAX)	63.849.335
7.	Paris (GDG)	61.478.475
8.	Dallas/Fort Worth(DFW)	58.887.570
9.	Dubai (DXB)	58.392.171
10.	Jakarta (CGK)	57.839.056

Source: The World Factbook [8]

B. Airport Accessibility

Accessibility refers to the ease of reaching goods, services, activities and destinations, which together are called opportunities. Opportunities can be defined as the potential for interaction and exchange. Accessibility can be defined in terms of potential (opportunities that could be reached) or in terms of activity (opportunities that are reached). Even people who don't currently use a particular form of access may value having it available for possible future use, called option value.

Access is the goal of most transport activity, except the small portion of travel for which mobility is an end in itself (e.g., jogging, cruising, leisure train rides). Even recreational travel usually has a destination, such as a resort or campsite. Airport accessibility means how passengers rate the ease of leaving a terminal and dropping off passengers in front of a terminal; overall parking; the direction of traffic flow on airport grounds and the attractiveness of airport grounds [9]. Airport terminals are sometimes difficult or uncomfortable to access by public transit, particularly by people with disabilities, children, and people carrying heavy loads. Also, it is often difficult to obtain accurate information on alternative modes. However, different regulations on transport accessibility are obeyed in countries. Some countries have their own regulations or norms to encourage disabled people to access particular destinations easily. Since different countries have differing regulations regarding the accessibility of public buildings, so their accessibility to the disabled traveler varies.

Airport accessibility includes phone numbers, e-addresses, bus service, inter-terminal bus, car rental/courtesy vehicles, taxicab/shuttle services, parking of airport, and elevators in terminals so on. Within the airport itself, disabled travelers should have ease of access between check-in counters, security check points and boarding terminals. This is usually accommodated through lift and ramp access.

C. Security Check

Gkritza et al. [10] point out security check refers to the techniques and methods used in protecting passengers, staff and aircraft which use the airports from accidental/malicious harm, crime and other threats. Large numbers of people pass through airports every day, this presents potential targets for terrorism and other forms of crime because of the number of people located in a particular location. Similarly, the high concentration of people on large airliners, the potential high death rate with attacks on aircraft, and the ability to use a hijacked airplane as a lethal weapon may provide an alluring target for terrorism, whether or not they succeed due their high profile nature following the various attacks and attempts around the globe in recent years. Airport security means how passengers rate the amount of time required for security check, the professionalism of the security staff and the ability of the security process to make you feel safe.

Airport security attempts to prevent any threats or potentially dangerous situations from arising or entering the country. If airport security does succeed in this, then the chances of any dangerous situations, illegal items or threats entering into aircraft, country or airport are greatly reduced. As such, airport security serves several purposes: To protect the airport and country from any threatening events, to reassure the traveling public that they are safe and to protect the country and their people.

Despite the fact that passengers are more likely to accept delays at airport security screening checkpoints, there still remains a clear correlation between customer satisfaction and both wait times and perceived increases in security [10]. Passenger satisfaction reports were reviewed to identify the crucial issues that passengers consider when determining whether their service experience by airport was satisfactory. Sources of passenger satisfaction data were airline and airport passenger opinions, World Airport Awards, and North America Airport Satisfaction Study. One of the commonly identified issues by a number of passengers as having a positive or negative effect on their airport experience was 'queues at curbside, check in, and security'.

Airport check-in uses service counters found at commercial airports handling commercial air travel. The check-in is normally handled by an airline company or a handling agent working on behalf of an airline company. Passengers usually hand over any baggage that they do not wish or are not allowed to carry on to the aircraft's cabin and receive a boarding pass before they can proceed to board their aircraft. Check-in is usually the first procedure for a passenger when arriving at an airport, as airline regulations require passengers to check in by certain times prior to the departure of a flight. This duration spans from 15 minutes to 4 hours depending on the destination and airline. During this process, the passenger has the ability to ask for special accommodations such as seating preferences, inquire about flight or destination information, make changes to reservations, accumulate frequent flyer program miles, or pay for upgrades [11].

D. Services Innovation

There are several definitions for the concept of service innovation and all of them relate in some way to performance improvement and improving the firm's capacity to

outcompete other firms. In many cases, service provision can be more valuable to the company than the products it sells since products tend to become commodities at a faster pace [12, 13]. Service innovation should be understood as something new and beneficial for the target audience [14, 15], both in creating value to the customer now and in the future [16]. The concept can encompass a variety of areas and different levels of interactivity in the development of the whole process [17]. Consequently, to be considered a successful service innovation, all engaged parties must be efficient since bottlenecks or barriers in certain areas or process can undermine the effectiveness of the service innovation. A relevant review of studies related to service innovation was undertaken by [18], embedding various ways to look at service innovation, such as procedures to manage service innovation [19], processes for implementing service innovation [20] and user-involvement in innovating services [21].

Customer orientation is a strategy directly related to the concept of Level of Service (LOS) at the airport. Although the use of the concept is established in private sector business, the researcher believes it is necessary that state-owned airports also use it since their mission is to serve well the population. Customer-focused companies are always looking to create a continuous flow of customer value [23], without disregarding the user's perspective [24], a framing that is equally relevant to state-owned airports.

E. Service Innovations in Airport

Kiosk

The adoption of self-service is gaining importance in other industries for two main reasons, increased efficiency and reduced costs and labor. Self-service puts control into hands of the customers. It has been observed that customers are now more open to experiment with kiosks [25]. Other industries like retail, finance, hotels, etc. are considering using of self-service kiosks. Even libraries are trying out self-service technologies to issue books. The customers are now ready to make bigger transactions with kiosks and many models for self-service have been put to the test [25].

After all this we have a new technology called self-service Technology (SST). A self-service Technology (SST) is an object which allows customers to interact with self-service software (SSS). Such kiosks can be found in a variety of locations, and they typically include a computer loaded with the software and housed inside a protective case, although a self-service kiosk (SSK) can also consist of a computer placed at a table or desk in an accessible area for customers to use. An internet-based self-service access must meet specific requirements of information technology as well as general requirements of the access system architecture. Only the integration of different functions, e.g. electronic payment, digital signature etc., can enable electronic transactions which allow 'one-stop-services non-stop-services'.

When consumers used self-service transaction process, they can feel spontaneous delight of spontaneous. However, another group of consumers, the service technology transfer process has brought their anxiety and not the smooth operation of doubts; so that consumers will consider the cost size of use new technologies, whether it is worthwhile to transfer or not [27]. There are many studies of self-service technology [24], mostly focused on self-service technology attributes of the service quality performance, the impact of service providers, and the perspective is service a supplier to discuss impact factors of Self-Service Technologies (SSTs) performance.

X-ray

The x-ray scanners take time as they need to set up the passenger in an appropriate position, capture the image, have the image read by the remote security personnel, and then relay the results back to the personnel at the security checkpoint. For any given individual, this might not seem like a long amount of time, but at peak travel times in major airports; this could lead to major delays. Many airports already found their security checkpoints overwhelmed following the introduction of other, less time-consuming security measures (such as the removal and scanning of shoes), and there is concern that additional delays could increase pressure on security personnel and make them less effective rather than more so. Backscatter X-rays are much weaker than those your doctor employs. These rays don't go through your flesh and bones. Instead, they penetrate your clothing and about an inch into your body, where your tissues scatter and ricochet the rays back toward the sensor."

Use of social media by airports

Airports are increasingly embracing social media as a means of communication [28] and there are now numerous examples of airports offering the opportunity to 'Like' them on Facebook, 'Follow' them on Twitter and 'View' videos and photos about them on YouTube and Flickr. The range of airports using social media has widened in recent years but still appears to be biased towards larger airports and airports that are located in North America or Europe [30]. There may also be differences according to the way in which an airport is owned and operated because the use of social media is to some extent a reflection and a driver of the business transformation that the airport industry has undergone in recent years [29]. Social media can be defined as "the group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content" [31]. Growth in the use of social media during the last decade has been remarkable. According to the respective sites, the number of users in 2011 exceeded 800 million on Facebook, 200 million on Twitter and 100 million on LinkedIn. YouTube had 490 million unique users worldwide per month with about 92 billion page views each month.

Most social media applications were traditionally designed for, and used by, friends or people with mutual interests, as a means of connecting, communicating and

interacting with each other [32]. However, an increasing number of businesses have a social media presence, offering direct links from their corporate websites, and use it to promote their brands and support the creation of brand communities [31]. Worldwide expenditure of businesses on online social network advertising, including building and maintaining a social media presence, is estimated to have reached US$6 billion in 2011. This includes general social networking sites where social networking is the primary activity. Facebook alone is expected to have attracted US$4 billion [33].

Academic literature increasingly calls for a need to investigate how best to manage the social media mix and whether it provides a return on investment [34]. There have also been a number of high profile examples of misuse by businesses and/or their employees. For instance, Belkin was caught offering money to anybody who posted a 100% positive review of their products on Amazon. Honda's Manager of Product Planning was caught secretly posting positive reviews about one of their new cars on Facebook stating that he would 'get this car in a heartbeat'.

Airport micro hotels

Airports are no place to sleep, as any weary traveler who has tried to grab a few minutes shuteye during a layover can attest [35]. However, that may be changing, thanks to a new breed of short-stay, pay-by-the-hour micro-hotels popping up in airport terminals around the world. Based loosely on the concept of the Japanese "capsule hotel," these cabins and boxes allow sleepy travelers to seal themselves off from the surrounding commotion for a 30-minute power nap or a solid night's sleep without having to leave the terminal for a hotel. Some even contain toilets and showers. Moreover, they are spreading beyond the airport terminal. Yotel, which operates short-stay "cabins" in airports in London and Amsterdam, has also opened a hotel in Manhattan based on a similar concept, while Sleepbox, which has a demonstration model in Moscow's Sheremetyevo Airport, will open 60 of its units in downtown Moscow in a matter of weeks. Here are five of the best micro-hotels proving that size is not everything.

Yotel

Yotel has operated its pod hotels in London's Heathrow and Gatwick airports since 2007 and in Amsterdam's Schiphol since 2008. Yotel also operates a hotel based on a similar concept in New York City, with 669 slightly larger rooms. Yotel marketing director Jo Berrington said the airport cabins had very high occupancy rates, and the company planned to roll out its operations in other airports soon [35].

Napcabs

Napcabs are 4-square-meter, self-service booths operating in Terminal two of Munich Airport. Six cabins are currently in operation, with plans to add more in coming months. They contain a bed, desk, air conditioning, internet access and a TV [35].

Sleepbox

The cozy, 4-square-meter Sleepbox contains a maximum of three bunk beds, bedside tables, electrical outlets, and reading lamps and can be equipped with a television and alarm clock. A model Sleepbox was installed in the Aeroexpress terminal of Moscow's Sheremetyevo Airport in August, and will be put into commercial use in coming weeks when 60 are installed for use in downtown Moscow. The Sleepbox's designers envisage the units will also be used in train stations, shopping malls and exhibition centers [35].

Minute suites

Minute Suites provides private rest spaces for travelers to relax, nap or work inside the security areas at two U.S. airports. Atlanta's Hartsfield-Jackson International Airport has hosted the micro-rooms since late 2009. Philadelphia International Airport also installed 13 suites in 2011.

Snooze Cube

Situated in Terminal one of Dubai International Airport, Snooze Cube offers a compact and soundproof room complete with bed, touch screen TV and internet access. All Snooze Cubes are connected to the airport's flight information system to ensure that passengers do not miss their flights [35].

E. Customer Satisfaction

In many cases, satisfaction is known to be a great value in understanding customer's perception and evaluation [36]. Many experts try to make definition and theoretical framework about how should services be performed and how to delivery service quality to improve customer satisfaction. Customer satisfaction is a customer's positive or negative feeling about the value that was received as a result of using a particular organization's offering in specific used situations [36]. This feeling can be a reaction to an immediate use situation or an overall reaction to a series of use situation experience. Satisfaction is strictly tied to the customer's perception or product performance. Next, perceived product (service) performance is compared with a standard representing the service performance that the customer expected.

In the same meaning, it is said that "The expectancy disconfirmation with performance (EDP) framework Oliver [36] is one of the most common theories of consumer satisfaction". A basic assumption is that satisfaction or dissatisfaction results from a comparison of expectations with actual performance. The disconfirmation effect, which is separated to the effect of expectations and performance, has been described as the subjective difference between expectation and performance. Confirmed or disconfirmed expectations affect whether one feels satisfied or dissatisfied with the service and implies an evaluation of better or worse

than expected. Thus, satisfaction often starts with the expectations a person has. Expectations seem to be based on and influenced by personal needs, word-of-mouth communication, and past experiences [36].

The comparison of perceived performance with the comparison standard result in disconfirmation, or the difference between what was expected and what was received [37]. It means that an area immediately surrounding the comparison standard is labeled the "zone of indifference". This zone indicates that, the customer's perspective, there may be some latitude within which product or service performance may vary but will still be evaluated as "meeting expectations".

F. Customer Value

As scholars have begun digging deeper into the essence of customer-focus, the obvious question has emerged: What is it in the customer that we need to research and address? This discussion has resulted in the concept of customer value, which in its versatility and diverse interpretations to this day remains a relatively fragmented topic in management literature. Despite this, many academics have highlighted customer value and managing by customer value as the next source of competitive advantage for modern companies [1-4] he who understands his customer and what the customer values, will be the winner.

Value was realized to the seller when a transaction was finalized, i.e. value equaled the money paid for the product. This is well-reflected in Porter's definitions of value: "In competitive terms, value is the amount buyers are willing to pay for what a firm provides them" [38]. Value in management literature can on a general level be divided into three categories: shareholder value, stakeholder value and customer value of these value categories customer value has been argued and shown to be the fundamental source of the other two value forms [39, 40, 41]. Even though maximizing shareholder value has been the axiom of financial economists as the basis for success, the fundamental value is created in the relationship to the customer. In the end shareholder value is derived from profitable customer relationships, not from the stock market [12].

Due to its central importance for success customer value has become a concept of continuing interest in the academic world and a plethora of research has emerged highlighting its importance in driving success as well as its relationship to other central concepts such as customer satisfaction, loyalty and retention [44]. To this day there is no widely accepted way of pulling the diverse views together and build a solid ground to further develop research upon [42, 43,]. The use of the concept of value across different fields further complicates finding a consistent definition "value as a concept is used in e.g. finance, management, economics, ethics, justice, aesthetics and marketing, and further within marketing in connection to pricing, CRM and consumer behavior" [44]. As aptly was formulated by Ulaga [45] "The fundamental question of how to conceptualize value still merits further investigation". A further issue that from time to time may complicate the discussion of customer value is when the concepts value and values become mixed. To start off, researcher will define the concept of "values" and clearly differentiate it from our notion of "value".

1) **Schools of Customer Value**

In defining customer value some central, generally agreed upon characteristics surrounding value need to be clarified. Value, as agreed in management literature [3, 42, 44, 46, 47] is:

- Subjective: Customer value cannot be determined in one exact figure or amount, since "beauty is always in the eyes if the beholder"
- Customer-focused: Customer value is determined by the customer's perception in the market place, not by the supplier's assumptions in the factory.
- Evolving over time: The customer's perception of value may change over time both in terms of the value elements included as well as in terms of the relative value given to different elements.
- Contextual: Customer value is linked to the use of some product, service or solution.

There are two contrasting schools of opinion–the view that defines value as consisting of what the recipient receives, and the view that sees value as a trade-off between what is received and what is given up. What the customer receives (e.g. cost savings) are here denominated benefits, and what the customer gives up (e.g. price) sacrifices. Even though these schools continue to debate over what the definition of customer value should be, they discuss in essence two completely different things.

Customer value as perceived by this school of thought can be defined as "the customer value concept assesses the value a product offers to a customer, taking all its tangible and intangible features into account"[48]. This school defines as "value as whatever the consumer wants in a product" with value being built-up of all the benefits the product can contribute to a specific customer [43]. This sort of value is also called utility value by some researchers. Value as a sum of benefits is also widely denominated "customer desired value". Customer desired value focuses on what the customer wants to have from a product or service offering in a specific use situation in order to achieve the customer's desired goals [48]. As customer desired value seeks to explain the customer's needs, wants and desires in an offering, many researchers have used means-end theory as the theoretical background for interpreting customer value [49]. Means-end theory seeks to explain how the customer attempts to achieve the desired end-state or goal (end) by choosing products or services (means) that enable achieving this [44, 50]. The theory assumes that the customer behaves rationally and strives to minimize undesirable consequences and maximize desirable outcome [49].

This second major school of thought chooses to include the sacrifice side of the interchange between customer and supplier, i.e. the time and effort needed to purchase and use the product, purchase price, etc. This idea is explained very simply by Rust and Oliver [6] "value is some combination of what is received and what is sacrificed". This view of value is denominated "customer perceived value" i.e. the perception of net value achieved considering all relevant benefits and sacrifices involved in purchasing and using the offering [2, 49].

In general, customer perceived value has been seen to consist of two dimensions: product oriented perceived value and relationship-oriented perceived value. Product-oriented value, which is characteristic of the Goods-Dominant Logic (GDL), limits the value trade-off to the transaction. Product-oriented value may thus be the difference between perceived quality and price, but may also be extended to include the difference between intrinsic indicators inherent of the product itself. Relationship-oriented value broadens the scope to Service-Dominant Logic (SDL) to include relationship, process and risk components of the offering [49]. According to Ravald and Grönroos [51] these components become more important the longer the customer-supplier relationship endures, and must be included in the evaluation of the transaction as benefits and sacrifices of preserving the relationship.

III. RESEARCH METHODOLOGY

A. Research Framework and Hypotheses

Based on the review of literature, the following conceptual framework is constructed which contains dependent variables that are customer value and customer satisfaction, moderating variables as service innovation and independent variables are airport accessibility, security check and terminal facilities to test significance of relationships among their theoretical statements in airport passengers.

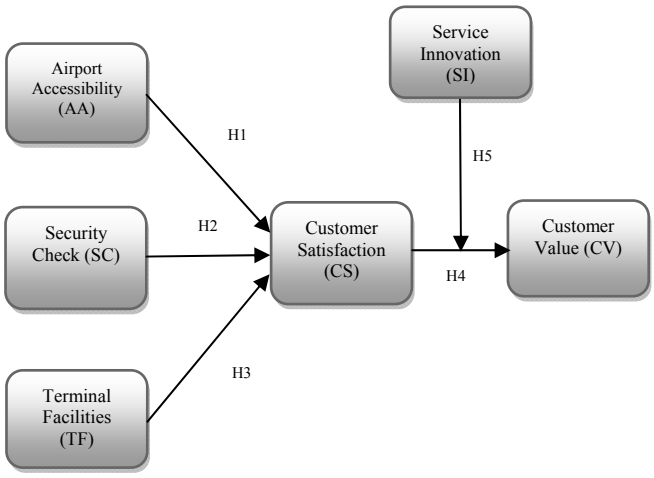

Fig. 1. Conceptual Framework.

Based on this theoretical framework and the purpose of this study, five hypotheses are developed to answer the research questions. The hypotheses are summarized in Table 2.

TABLE II
SUMMARY OF RESEARCH HYPOTHESES

Hypothesis	Describe hypothesis
H1	AA has a statistically significant influence CS.
H2	SC has a statistically significant influence CS.
H3	TF has a statistically significant influence CS.
H4	CS has a statistically significant influence CV.
H5	SI has a moderating effect on relationship between CS and CV.

IV. DATA ANALYSIS AND DISCUSSION

A. Data Analysis

This study collected 323 respondents and there were 300 usable questionnaires. Those questionnaires were completed and usable, with an overall response rate of 92%. The demographic data included information on gender, age, education, income, occupation, and nationality, also researcher asked respondents frequency of usage of airport per year. The gender for the sample was 148 male (49.3%) and 152 (50.7%) female respondents. In terms of nationality, majority of the respondents were Mongolians (68=22.7%). Next major respondents were Taiwanese (56=18.7%), followed by Chinese (44=14.7%), Indonesian (32=10.7%), Vietnamese (23=7.7%), Japanese (17=5.7%), Korean (14=4.7%) and other countries (50=16.7%). Most of the respondents were from Asian countries.

In terms of education, this research divided level of education into four levels: undergraduate or less, graduate, master and doctoral were contributed. 149 of the sample were (49.7%) graduate, followed by 114 of the sample were (38%) master degree, followed by 30 of the sample were (10%) undergraduate students and other 7 of the sample were (2.3%) doctoral program respondents.

The data analysis, using SPSS 20 for windows, included determination of descriptive statistics, frequency distribution analysis, and testing of reliability and validity. Structural equation modeling was applied to test validity and the proposed hypotheses. SEM is particularly appropriate for the study of multiple dependence relationships such as those investigated in the present research. SEM was used in this research to determine if the estimated population covariance matrix of the proposed model was consistent with the observed covariance matrix. The software package utilized for SEM in this research is the AMOS statistical package due to its user friendliness.

TABLE III
ROTATED COMPONENT MATRIX FOR EXPLORATORY FACTOR ANALYSIS

	Component					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
AA 1					.800	
AA 2					.822	
AA 3					.797	
AA 4					.710	
AA 5					.775	
SC 1			.906			
SC 2			.903			
SC 3			.900			
SC 4			.898			
SC 5			.901			
TF 1		.762				
TF 2		.781				
TF 3		.742				
TF 4		.782				
TF 5		.760				
TF 6		.782				
TF 7		.703				
CS 1				.723		
CS 2				.814		
CS 3				.817		
CS 4				.723		
CS 5				.731		
SI 1						.687
SI 2						.748
SI 3						.726
SI 4						.646
SI 5						.625
CV 1	.889					
CV 2	.892					
CV 3	.887					
CV 4	.892					
CV 5	.883					
CV 6	.891					
CV 7	.896					
CV 8	.873					

Exploratory factor analysis (EFA)

Exploratory factor analysis (EFA) is an important tool for researchers. It can be useful for refining measures, evaluating construct validity, and in some cases testing hypotheses. An exploratory factor analysis was conducted to identify the un-dimensionality of all variables under investigation which are customer value, airport accessibility, security check, terminal facilities, customer satisfaction and service innovation. However, the result of Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity needs to be considered as satisfactory before factor analysis can proceed.

Reliability and Validity

Hair et al. [52] suggest that a reliability test should be performed before an assessment of its validity. "Reliability is an assessment of the degree of consistency between multiple measurements of a variable" [52]. According to Cronbach's Alpha is the most commonly reported estimate of reliability and also Cronbach's Alpha values provide evidence for reliability. The reliability of the construct should be greater than 0.7. This study Cronbach's Alpha values is 0.906 it is more high than 0.7.

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is another factor analytic strategy, and it is used to confirm an expected factor structure rather than to determine a structure [53]. In a departure from exploratory factor analysis, the desired factor structure needs to be explicated in confirmatory factor analysis. Confirmatory factor analysis provides an indication of how well the actual data conform to the specified factor pattern [53]. Confirmatory factor analysis is a theory-testing model as opposed to a theory-generating method like exploratory factor analysis. In confirmatory factor analysis, the researcher begins with a hypothesis prior to the analysis. This model, or hypothesis, specifies which variables will be correlated with which variables. The hypothesis is based on a strong theoretical and/or empirical foundation [54].

Fit Statistics

As stated previously, the fit statistics test how well the competing models fit the data. Examples of these statistics include the chi square/degrees of freedom ratio, the Bentler comparative fit index (CFI) [55], the parsimony ratio, and the Goodness-of-fit Index (GFI) [56]. The good of fit index "is a measure of the relative amount of variances and co variances jointly accounted for by the model" [56]. The GFI gives an indication of the relative amounts of the co variances among the latent variables that are accounted for by the model [57].

Root mean square error of approximation (RMSEA)

Root mean square error of approximation (RMSEA) is a measure of approximate fit in the population [58]. The RMSEA has a value close to zero indicating perfect fit with values increasing as model fit deteriorates. RMSEA values lower than .05 can be considered as a good fit, values between .05 and .08 as an adequate fit, and values between .08 and .10 as a mediocre fit, whereas values > .10 are not acceptable [59].

Measurement model confirmatory factor analysis

CFA was performed to examine the relationship between the items and their respective latent variables using AMOS 20. Relationships between the constructs and their latent variables were specified in the measurement model.

Structural Model Testing

The framework model for this research was tested using AMOS 20. The result shows of the structural equation model. The hypothesis (H1~H5) of the proposed model were tested for the sample. First fit index for the structural model indicated an acceptable fit ($x2$ = 1106.2, (df = 556), p-value = 0.000; RMSEA = 0.058; CFI = 0.936; GFI = 0.821; TLI=0.932).

TABLE IV
RELIABILITY AND VALIDITY

Variable	Code	Comm	EFA loading	CFA loading	Cronbach's α	KMO	Variance	AVE	CR
AA	AA1	.65	.80	.68	0.84	0.82	61.57	0.49	0.83
	AA2	.69	.82	.81					
	AA3	.65	.80	.67					
	AA4	.52	.71	.63					
	AA5	.61	.78	.74					
SC	SC1	.90	.91	.93	0.97	0.92	90.30	0.52	0.84
	SC2	.90	.90	.93					
	SC3	.92	.90	.95					
	SC4	.91	.90	.94					
	SC5	.90	.90	.93					
TF	TF1	.64	.76	.74	0.91	0.91	63.96	0.88	0.97
	TF2	.69	.78	.78					
	TF3	.60	.74	.70					
	TF4	.65	.78	.73					
	TF5	.63	.76	.76					
	TF6	.70	.78	.83					
	TF7	.59	.70	.74					
CS	CS1	.60	.72	.71	0.87	0.88	65.67	0.58	0.91
	CS2	.72	.81	.80					
	CS3	.72	.82	.79					
	CS4	.64	.72	.75					
	CS5	.63	.73	.74					
SI	SI1	.58	.69	.71	0.87	0.81	59.39	0.57	0.87
	SI2	.64	.75	.69					
	SI3	.66	.73	.74					
	SI4	.56	.65	.74					
	SI5	.56	.63	.69					
CV	CV1	.85	.89	.90	0.97	0.95	84.78	0.83	0.97
	CV2	.86	.89	.91					
	CV3	.85	.89	.91					
	CV4	.85	.89	.91					
	CV5	.84	.88	.91					
	CV6	.85	.89	.91					
	CV7	.86	.90	.92					
	CV8	.83	.87	.90					
TOTAL					**0.91**	**0.92**	**72.14**		

TABLE V
SEM GOODNESS-OF-FIT STATISTICS

GOF Index	Good fit	Acceptable fit	Structural Model
X^2(chi-square)			770.146
df (degrees of freedom)			540
X^2/df	< 2	2.0-5.0	1.4262
Probability	.000	.050	.000
NFI	>0.90	0.85-0.90	.917
CFI	>0.90	0.85-0.90	.973
GFI	>0.90	0.85-0.90	.872
TLI	>0.90	0.85-0.90	.971
RMSEA	<.06	0.06-0.08	0.038

Among the five hypothesis proposed, four paths were supported (Airport accessibility → Customer satisfaction; Security check → Customer satisfaction; Customer satisfaction → Customer value) and one paths (Terminal facilities → Customer satisfaction) was not supported Figure 2 and Table 6 present the results of the structural model test

TABLE VI
STANDARDIZED COEFFICIENT WITH STANDARD ERRORS

Hypothesis	Standardized Estimate	Standard Error	P
H1: Airport accessibility → Customer satisfaction	.147	.048	*
H2: Security check → Customer satisfaction	.446	.039	***
H3: Terminal facilities → Customer satisfaction	.083	.088	.158
H4: Customer satisfaction → Customer value	.471	.074	***

****p<0.001 **p<0.01 *p<0.05*

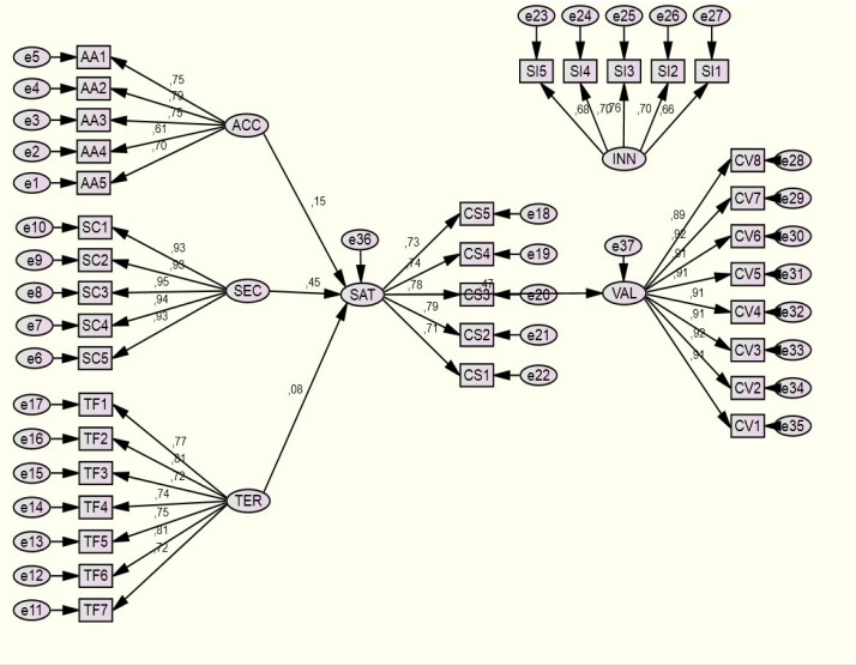

Fig. 2. Standardized Structural Model

Hypothesis 1

Airport accessibility has a statistically significant and positive influence on customer satisfaction. Based on standardized estimates of 0.15 and the associated p-value of 0.000 this hypothesis was accepted (*$p<0.05$). It appears Airport accessibility has a positive and significant influence on customer satisfaction. It implies that most passengers feel access to airport is one of the barriers for using airport. Its direction and other important information should be written in more languages and be exact. Other additional services like free shuttle bus or shuttle bus timetable should be informed widely.

Hypothesis 2

Security check has a significant influence on customer satisfaction. Based on standardized estimates of 0.45 and the associated p-value of 0.000 this hypothesis was accepted (***$p<0.001$). Based on hypothesis test, it appears security check has a positive and statistically significant influence on customer satisfaction. Previous studies concluded that security related issues was the most prioritized issues for passengers and this study was consistent with the priors studies. It means passengers are more patient to follow security check and they are more satisfied with the airport which has high security check. It also was the most influential factor for customer satisfaction.

Hypothesis 3

Based on standardized estimates of 0.08 and the associated p-value of 0.158 this hypothesis was rejected. Based on hypothesis test, the results appears terminal facilities has a positive, however, terminal facilities influence on customer satisfaction was revealed to be insignificant in this study. The means that customers think terminal facilities have not influenced their satisfaction because they see it as must have or it has been differed by their travel purposes. For example, business travelers are too busy to enjoy other facilities etc. Another words, recent airport terminals fulfills the customer needs from initially which they knows what the customer wants and that has already established in airport from the beginning. That's why terminal facility does not greatly influence the customer satisfaction.

Hypothesis 4

Value is some combination of what is received and what is sacrificed. Customer satisfaction has significant influence on customer value. Based on standardized estimates of 0.47 and the associated p-value of 0.000, this hypothesis was accepted (***$p<0.001$). Based on hypothesis test, the result appears customer satisfaction has a positive and significant influence on customer value. Based on this result, we can conclude that this experience obtaining after using a certain airport was valuable for customers.

Moderating analysis

In general terms, a moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. Based on Baron and Kenny [60] moderating effect have testing the hypothesis.

For the Hypothesis 5 following variables are measured for the study. Independent variable: Customer Satisfaction; Moderator variable: Service innovation; Dependent variable: Customer value

In conclusion, service innovation as a moderator has a significant impact between relationship of customer satisfaction and customer value. All the innovative items have increased influence of customer satisfaction on customer value. Table 7 presented total effect of service innovation items and this result showed that these items have strong influence on customer value together (0.65, $p<0.001$).

B. Discussion

The following part will explain the result of the research analysis. The objective of this study was to find the most influential factor in airport customers' satisfaction. In the light of previous literature, present study used three items which are airport accessibility, security check, and terminal facility to study relationships between customer satisfaction and finally its influence on customer value. In addition to that, moderating effect of service innovation was examined. A total five hypothesis were developed and tested using SEM. This research consisted of 300 questionnaires collected from the airport passengers by convenient sampling method.

First, demographic characteristics of respondents were summarized using descriptive statistics, respectively. In terms of gender, 50.7% of respondents were female and 49.3% of them were male. Respondents within the age range 25-34 years old were identified as the major age group of this study represented 39% of respondents followed by below 24 years old (25.7%) and 35-44 years old (14.3%). For the education level of respondent, respondents with bachelor (49.7%) and master (38%) degree was the majority. In terms of income, 57% of participants were respondents within 1000-2000 USD income level. Majority of respondents in this study claimed that they are workers at public and private sector. In terms of frequency usage of airport, most respondents used airport 1-5 times a year (45%).

Second, analysis of the findings reveals that most influential factor on airport customer satisfaction was security check ($\beta=0.45$, $p<0.001$). Previously, safety and security of air travel dimension has the most influential impact on customer satisfaction among assurance, convenience, comport, and meal. This result was consistent with previous studies [61]. It means passengers are patient for security related airport services' procedures and expect it to more reliable and quality. Because traveling by air sometimes is considered as a life-death experience and many accidents happen at airport. Therefore, passengers are more likely to obey security related issues and satisfied with safe service. Next influential factor on customer satisfaction was airport accessibility ($\beta=0.15$, $p<0.05$). Access is defined as approachability and ease of reach. Scholars studied overall passenger perceptions of service quality by seven airport service dimensions (access, services and facilities, dining, shopping, service personnel, and security, environment, and immigration and customs). As a result, airport environment was revealed to be the most influential dimension of airport service quality which was followed by access, dining and immigration and customs which is supported in this study. In people's day to day life airport accessibility does not influence that much thus it has only moderate significance on customer satisfaction (0.15, $p<0.05$). However, airports need to provide easy understandable direction or signs for more languages and special transit ways for those who need special care to increase satisfaction level. Unlike with previous studies, this study concluded that terminal facilities have not influenced on customer satisfaction (0.08, $p>0.05$). Many researchers stated that customer satisfaction for facilities differed from industry nature and this may applied for airport passengers' satisfaction. Since passengers do not spend much time at airport, they do not care much about its facilities or they just consider terminal facilities as must-have and it has no longer to amuse passengers.

Third, we examined relationships between customer satisfaction and customer value. Value is some combination of what is received and what is sacrificed. Some researchers indicated that airport service value is resulted after experiencing the actual service by airport. Therefore, satisfaction can be good antecedent to examine customer value. Based on hypothesis test, the result appears customer satisfaction has a positive and statistically significant influence on customer value (.47, $p<0.001$). As soon as customer satisfaction is enhanced, when customers' value increased and aroused customers' intention to use again.

Lastly, the moderating effect of innovation examined in relationships between customer satisfaction and customer value. We have studied 4 main innovative airport services as moderator which are self-check-in kiosk, X-Ray, social media and micro hotels. Self-check-in kiosk moderates relationship between customer satisfaction and customer value ($\beta=0.60$***, *$p<0.001$*). X-ray do exert a moderating effect on the customer satisfaction – customer value relationship ($\beta=0.62$***, $p< 0.001$). Service innovation 3 (social media) has an effect on relationship between customer satisfaction and customer value ($\beta=0.53$***, $p< 0.001$). Micro hotels do exert a moderating effect on the customer satisfaction and customer value relationship ($\beta= 0.56$***, $p<0.001$). All those moderators revealed as significant influence and increased the direct relationship between customer satisfaction and customer value. In conclusion, the finding indicated these service innovation in airport is prerequisite for service providers.

TABLE VII
MODERATING ANALYSIS RESULT

Testing step	Path	Predictor	Moderator	Outcome	Std β	Geographical display
Step 1	a	CS	No	CV	.51***	CS .51→ CV
Step 2	b	SI5	No	CV	.25***	SI5 .25→ CV
Step 3	c	CS*SI5		CV	.65***	Mod5 .65→ CV

****p<0.001 **p<0.01 *p<0.05*

V. CONCLUSION

A. Research Result

Current study had used exploratory factor analysis, confirmatory factor analysis, and structural equation modeling. Also Chronbach's alpha measures reliability of questions and their variables. Chronbach's alpha was 0.906 which means that the data had strong internal consistency. Measurement validity was made upon exploratory factor analysis and some items were deleted upon its consistency and factor loading and consistent factors retained for run next statistics analysis. The confirmatory factor analysis applied by AMOS 20 version the outcomes of the CFA do not differ from the EFA. Thus, study moved on to next convergent validity test. Value of each latent variable ranged from 0.83 to 0.97, indicating strong composite reliability. The Average Variance Extracted (AVE) value of each latent variable ranged from 0.49 to 0.88, demonstrating strong convergent validity. Discriminate validity of the variables ranged from 0.96 to 4.01. The results for all the criteria were valid.

Before the hypotheses testing research checked the model fit indexes. For this step all the fit index for the structural model indicated an acceptable fit ($x2$ = 770,146, (df = 540), p-value = 0.000; RMSEA = 0.038; CFI = 0.973; GFI = 0.872; TLI=0.971; NFI-0.917). The data indicates that researcher can move on the last analysis. Based on the result of Structural equation modeling, the proposed hypotheses were analyzed. The result of hypotheses test shows in following Table 5.

Out of five hypotheses, four of them were supported and one of them was rejected.

For the first hypothesis, relationship between airport accessibility and customer satisfaction, was supported (.15, p<0.05*), next hypothesis relationship between security check and customer satisfaction, was supported (.45, p<0.001***), next hypothesis relationship between terminal facilities and customer satisfaction, was rejected (.08, p>0.05) then relationship between customer satisfaction and customer value, was supported (.47, p<0.001***) and last hypothesis service innovation has a moderating effect on relationship between Customer satisfaction and Customer value, was supported.

B. Research Finding

The purpose of this research was to identify factors influencing customer satisfaction, determine relationship between customer satisfaction and customer value, and reveal moderating effect of service innovation on customer satisfaction and customer value.

To answer these purposes, an exploratory research approach has been adopted. Analysis of the findings reveals that the most influential factor on airport customer satisfaction was security check. This result was consistent with previous studies. It means passengers are patient for security related airport services' procedures and expect it to more reliable and quality. Because traveling by air sometimes considered as life-death experience and many accidents happened at airport. Therefore, passengers are more obey to follow security related issues and satisfied with safe service. Next influential factor on customer satisfaction was airport accessibility. As a result, airport environment was revealed the most influential dimension of airport service quality, which was followed by access, dining and immigration and customs, which is supported in this study. Unlike with previous studies, this study found that terminal facilities have not influenced on customer satisfaction. In addition, present study found there has strong positive relation between customer satisfaction and customer value. The customers who benefit or get advantage from the airport services tend to value the airport.

Lastly, the moderating effect of innovation examined in relationships between customer satisfaction and customer value. We have studied 4 main innovative airport services as moderator which is self-check-in kiosk, X-Ray, social media and micro hotels. All those moderators revealed as significant and increased the direct relationship between customer satisfaction and customer value.

C. Research Limitation

This research survey was completed by online survey and researcher used convenient sampling method. The sample size was relatively small. In this way sample size may not represent whole population sufficiently.

The questionnaire in this study was originally written in Mongolia and translated into English and Chinese. Therefore, there might occurre translating error or wording misunderstanding.

D. Suggestion and Recommendation

There are some suggestions for future researchers. First, in this study, we used following independent variables (accessibility, terminal facility, and security check) which are from SERVQUAL dimensions and it has been modified wording appropriateness to the airport service industry. Future researchers may wish to use other questionnaire items from other alternatives.

Second, as mentioned in research limitations section, in this research, independent variables have relevant sub-dimensions. For future research, those sub-dimensions could be examined as independent variables. It may produce more accurate and specific results for the framework.

Third, future researchers may wish to study a) whole this industry with sufficient large sample size, or b) specific targets by geographically or rural or airports by size can be studied.

Finally, this research study used closed-ended questions to examine factors influence customer satisfaction, and the relationships among the variables. Future researchers may wish to use other methods for collecting data, such as interviews and open-ended questions to have more extensive understanding. Further studies could be carried out to develop and validate the models by adding external constructs within a more specific context.

E. Practical Implication

On the basis of above findings and results the managers are needed to concern on the following issues.

First of all, in this research, the strongest significant factor influencing customer satisfaction was security check. It implies that airports should concern for the development and the process for enhancing security check to increase the customer satisfaction. The more they satisfied, the more they value the airports.

Secondly, the influence of airport accessibility was the significant on customer satisfaction. Therefore, ease of reach to the airport such as convenient transit service at airport, frequent transportation service, or sufficient parking etc., is the next issue the airports should come over.

Thirdly, as mentioned in previous chapters that customer satisfaction for facilities differed from industry nature and this may applied for airport passengers' satisfaction, since passengers do not spend much time at airport, they do not care much about its facilities or they just consider terminal facilities as must-have and it has no longer amuse passengers. Although, it does not mean to decrease or assume less importance on consideration of physical facilities of the airport: internal organization, seating and heating comfort, availability of banking service, facilities for disabled and children. Airports should take smooth policy and activities on terminal facilities.

Fourthly, value is some combination of what is received and what is sacrificed. Some researchers indicated that airport service value is resulted after experiencing by actual service. Therefore, satisfaction can be good antecedent to examine customer value. From the findings of this research, it appears customer satisfaction has a positive and statistically significant influence on customer value. As soon as customer satisfaction is enhanced, airport customers' values have increased and arouse customers' intention to use again. Hence, managers of airports may concern on increasing per customer sales, retaining customers longer and keeping flexible the cost to serve.

Lastly, according to the findings of this current research, service innovation plays a great role into the value in customer. Hence, this research suggests that airports should pay more attention and invest on their research and development for the innovations.

F. Originality/Value

Despite numerous studies about airport service, this study has some significance. Many researchers have used different factors to measure airport service. In this study, researcher used the most important factors to evaluate airport service which are airport accessibility, security check, and terminal facilities. Moreover, moderating effect of service innovation has been revealed in the study. Airport is one of the places where technology advancement employed as main necessity. We used self-check-in kiosk, X-ray, social media communication, and micro-hotels as the innovative items at the airport. In the result, all four innovation items revealed positive moderation effect especially respondents viewed security check as the most important factor in airport service which aroused the most satisfied customers while airport accessibility ranked second. Moreover, customer satisfaction has influenced the customer value which means more satisfied customers can view the airport as valuable place to use again.

This study create an evaluation model for evaluating customer satisfaction and customer value which can be helpful for future researchers, airport management team, and airport passengers.

REFERENCES

[1] Butz, H. E., and L. D. Goodstein, Measuring Customer Value: Gaining the Strategic Advantage. *Organizational Dynamics, 24*(3), 63-77, 1996.

[2] Gardial, S. F., and R. B. Woodruff, R. B. *Know your customer: New approaches to customer value and satisfaction.* Cambridge: Blackwell Publishers, 1996.

[3] Anderson, J. C., and J. A. Narus, Business Marketing: Understand What Customers Value. *Harvard Business Review*, 53-65, 1998.

[4] Huber, F., A., Herrmann, and R. E. Morgan, Gaining Competitive Advantage Through Customer Value Oriented Management. *Journal of Consumer Marketing, 18*(1), 41-53, 2001.

[5] Van Der Haart, J. W., R. G. Kemp, and O. Omta, Creating Value that Cannot Be Copied. *Industrial Marketing Management, 30*(8), 627-636, 2001.

[6] Rust, R. T., and R. L. Oliver, Service quality: Insights and managerial implications from the frontier. *Journal of Marketing Management, 20*(7,8), 897-917, 1994.

[7] *Airport Industry: Market Research Reports, Statistics and Analysis*. Retrieved 07 12, 2013, from http://www.reportlinker.com/ci02329/Airport.html

[8] *The World Factbook*. Retrieved 07 18, 2013, from https://www.cia.gov/library/publications/the-world-factbook/geos/xx.htm, 2012.

[9] Parasuraman, A. Reflections on Gaining Competitive Advantage Through Customer Value. *Academy of Marketing Science, 25*(2), 154-161, 1997.

[10] Gkritza, K., D. Niemeier, and F. L. Mannering Airport security screening and changing passenger satisfaction, *Journal of Air Transport Management,* 12(5), 213-219, 2006.

[11] Solak, S., J. P. Clarke, E. Johnson, "Airport Terminal Capacity Planning," Transportation Research Part B, 43(6), 659–676, 2009.

[12] Gronroos, C. *Service Management and Marketing: A Customer Relationship Management Approach* (2nd ed.). London, UK: Wiley, 2000.

[13] Kandampully, J. Innovation as the core competency of a service organisation: the role of technology, knowledge, and networks. *European Journal of Innovation Management, 5*, 18-26, 2002.

[14] Grant, R. M. The resource-based theory of competitive advantage: implications for strategic formation. *California Management Review, 33*, 114-135, 1991.

[15] Flint, D., J. E. Larsson, B. Gammelgaard, and J. T. Mentzer, Logistics innovation: a customer value-oriented social process. *Journal of Business Logistics, 26*, 113-47, 2005.

[16] Möller, K., R. Rajala, and M. Westerlund, Service Innovation Myopia. *California Management Review*, 50, 31-48, 2008.

[17] Alam, I. An exploratory investigation of user involvement in new service development. *Journal of the Academy of Marketing Science, 30*, 250-61, 2002.

[18] Dreoge, H., D. Hildebrand, and M. A. Heras Forcada,. Innovation in services: present findings and future pathways. *Journal of Service Management, 20*, 131-155, 2009.

[19] Sundho, J. Management of innovation in services. *The Service Industries Journal, 17(3)*, 432-455, 1997.

[20] Thomke, S. R&D comes to services: Bank of America‟s pathbreaking experiments. *Harvard Business Review, 81*, 70-79, 2003.

[21] Magnusson, p., J. Matthing, and P.Kristensson, Managing user involvement in service innovation. *Journal of Service Research, 6*, 111-124, 2003.

[22] Narver, J. C., and S. F. Slater, The effect of a market orientation on business profitability. *Journal of Marketing, 54*, 20-35, 1990.

[23] Deshpande, R., J. U. Farley, and F. E. Webster, Corporate culture customer orientation and innovativeness in Japanese firms: a quadrad analysis. *Journal of Marketing, 57*, 23-37, 1993.

[24] Murphy, S., *Kiosk 411*. Chain Store Age, 2007.

[25] Maras, E., *Self-serve kiosk addres a changing customer*. Automatic Merchandiser, 2006.

[26] Bodendorf, F. Self-Service e-Transactions for Citizens Concept and Case Study. *IEEE Computer Society, Third International Conference on Digital Society*. 2009.

[27] Bennett, J., *Opportunities emerge for self-service in retail and hospitality*. White Paper, published by NetWorld Alliance and sponsored by NCR Inc., 2009.

[28] Twentyman, J. Twitter time. *Airport World, 14(1)*, 34-36, 2010.

[29] ACI-Europe. *Airports 2.0: How European airports are embracing social media.* Brussels: ACI-Europe, 2011.

[30] Airgate solutions. *Lists and polls*. Retrieved February 10, 2012, http://airgatesolutions.com:

[31] Kaplan, A. M., and M. Haenlein, Users of the world unite! The challenges and opportunities of Social Media. *Business Horizons, 53(1)*, 59-68, 2010.

[32] Correa, T., Hinsley, A. W., and H. G. DeZuniga, Who interacts on the Web? The intersection of users' personality and social media use. *Computers in Human Behaviour, 26(2)*, 247-253, 2010.

[33] Williamson, D., Worldwide social network ad spending: 2011 outlook. NY: eMarketer.

[34] Weinberg, B. D., and E. Pehlivan, Social spending: Managing the social mix. *Business Horizons, 54(3)*, 275-282, 2011.

[35] Hume, T., and E. Macguire, *Airports' tiniest hotels: Sleeping in a box*. Retrieved June 21, 2013, from CNN news, http://edition.cnn.com/2012/06/19/travel/airport-microhotels/

[36] Oliver, R. *Satisfaction: A behavioural perspective on the consumer*. New York, NY: McGraw-Hill, 1997.

[37] Woodruff, R. B., and S. F. Gardial, S. F. *Know your customer: New Approach to understanding Value and Satisfaction.* USA: Blackwell Publishers, Inc., 1996.

[38] Porter, M. Competitive Advantage: Creating and Sustaining Superior Performance. In M. E. Porter , *Competitive Advantage: Creating and Sustaining Superior Performance* (p. 38). New York: Free Press, 1985.

[39] Treacy, M., and F. Wiersima, *The Discipline of Market Leaders*. London: Harper Collins, 1995.

[40] Lemon, K. N., R. T. Rust, and V. A. Ziethaml, What drives Customer Equity? *Marketing Management, 10*(1), 20-25, 2001.

[41] Heskett, J. L., W. E. Sasser, and L. A. Schlesinger, *The Service Profit Chain: How Leading Companies Link Profit to Loyalty, Satisfaction, and Value.* New York, NY: Free Press, 1997.

[42] Wang, Y., H. P. Lo, R. Chi, and Y. Yang, An integrated framework for customer value and customer-relationship-management performance: A customer-based perspective from China. *Managing Service Quality, 14*(2/3), 169-182, 2004.

[43] Sánchez-Fernández, R., and M. Ángeles Iniesta-Bonillo, Consumer Perception of Value: Literature Review and a New Conceptual Framework. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 19*, 40-59, 2006.

[44] Khalifa, A. S. Customer Value: A Review of Recent Literature and an Integrative Configuration. *Management Decision, 42*(5/6), 645-667, 2004.

[45] Ulaga, W. Customer Value in Business Markets. *Industrial Marketing Management, 30*(4), 315-319, 2001.

[46] Zeithaml, V. A. Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2-22, 1988.

[47] Woodruff, R, B., Customer Value: The Next Source for Competitive Advantage. *Academy of Marketing Science, 25*(2), 139-153, 1997.

[48] Woodruff, R. B., and D. J. Flint, The initiators of changes in customer's desired value: Results from a theory building study. *Industrial Marketing Management, 30*, 321-337, 2001.

[49] Graf, A., and P. Maas,. Customer value from a customer perspective: A comprehensive review. *Journal für Betriebswirtschaft, 58*, 1-20, 2008.

[50] Gutman, J., Means-end chains as goal hierarchies. *Psychological Marketing, 14*(6), 45-60, 1997.

[51] Ravald, A., and C. Grönroos, The value concept and relationship marketing. *European Journal of Marketing, 30*(2), 19-33, 1996.

[52] Hair, J. F., R. E. Anderson, W. C. Black, and B. J. Babin, *Multivariate data analysis* (7th ed.). Upper Saddle River, New Jersey, NJ: Pearson Prentice Hall, 2010.

[53] DeVellis, R. F., *Scale development: theory and applications*. Newbury Park, CA: Sage, 1991.

[54] Stevens, J., *Applied multivariate statistics for the social sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates. 1996.

[55] Bentler, P. M. Comparative fit indices in structural models. *Psychological Bulletin, 31*, 238-246, 1990.

[56] Joreskog, K. G., and D. Sorbom, *Analysis of linear structural relationships by maximum likelihood, instrumental variables, and least squares* (4th ed.). Uppsula, Sweden: University of Uppsula Department of Statistics, 1986.

[57] Mathieu, J. E., S. I. Tannenbaum, and E. Salas, Influences of individuals and situational characteristics on measures of training effectiveness. *Academy of Management Journal, 35(4)*, 828-847, 1992.
[58] Schermelleh-Engel, K., H. Moosbrugger, and H. Muller, Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research-Online, 5(2)*, 23-74, 2003.
[59] Browne, M., W., and R Cudeck, *Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), Testing structural equation models.* Newbury Park, CA: Sage, 1993.
[60] Baron, R. M., and D. A. Kenny, The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic and Statistical Considerations. *Journal of Personality and Social Psychology, 51(6)*, 1173-1182, 1986.
[61] Clemes, M. D., C. Gan, T. H. Kao, and M Choong, An empirical analysis of customer satisfaction in international air. *Innovative Marketing, 4*(2), 49-62, 2008.