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Airline Passenger Travel Cycle, Satisfaction and Loyalty: A Comparison of EgyptAir and Emirates Airlines

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Abstract *Passenger satisfaction is a major concern to airlines. It is an important competitive advantage that airlines need. In addition, customer loyalty is significantly associated with satisfaction. This study, using structural equation modelling to analyze passenger perceptions of EgyptAir and Emirates airline, aims to measure the influence of passenger travel cycle service quality on passenger's satisfaction and its impact on loyalty. In addition, it investigates the opinions of passengers on provided services of both airlines including their tangible, intangible services, information availability and airlines' commitment to declared times. The findings revealed the significant effect of travel cycle services on passengers' satisfaction while it highlights the services that passengers are not satisfied with. Contributions of the study to knowledge and practice are also discussed.*

Keywords: *Passenger Travel Cycle, Satisfaction, Loyalty, EgyptAir, Emirates Airlines*

INTRODUCTION

Air travel has changed the life of human being and how they conduct business. After the World War II, commercial flights started to provoke to different destinations all over the world. Button (2008) mentioned that air travelling is the most popular mode of travel including business, leisure, and for those need to travel in fast, cheap, and save way in the modern society. Air transportation has made it possible to travel long-lasting journeys in a short time period and increased the demand for long-distance trips.

Therefore, Basnet (2015) pointed out that air transportation has not only made an impact upon the tourism industry and developed countries, but it has made a huge impact upon developing countries and their economy. This also encouraged governments to improve and build the required infrastructure such as modern airports to attract tourists developed countries. Private sector as well has witnessed an enormous growth in airline companies, travel agents, and their supply sources and production chains.

Airline companies are customer-centered and seek better understanding of customer's needs and wants in the different stages of their services provision. Therefore measuring passengers' satisfaction has become increasingly popular in the last two decades (Lin, 2003). However, limited studies investigated the impact of passengers' satisfaction in the Egyptian airline industry on passengers' loyalty. In addition limited studies have investigated the services of the whole travel cycle (pre-travel, inflight, and post-travel services) (Khuong, 2014). Therefore, this study aims to evaluate the services provided pre-during and post flights and its effect on passengers' satisfaction and loyalty. The study compares the airline services of EgyptAir and Emirates airlines. The findings of this study will help improving and increasing the effectiveness of airline services during the different stages of airline passenger travel cycle.

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REVIEW OF LITERATURE

Airline Passenger Travel Cycle

Airline service is a chain of services in which passengers' expectations of service quality may vary at different stages. Considering the nature of air transport, air travel is broken into two stages: ground services and in-flight services. Ground services include information gathering, reservations and ticket purchases, airport check-in and post-flight services. Passengers' attitudes toward service quality at the ground and in-flight service stages were investigated separately. However, passengers probably spend most of their time airborne. Therefore the quality of in-flight service deserves more attention by the airlines (Chen & Chang, 2005; Khuong, 2014). Becausea service is a sequence of processes; and each of those processes generates a different value for passengers, the inflight services add significant value to passengers' experience. The other issue is that passengers are not very likely to differentiate between ground services and inflight services and therefore evaluating ground services separately is only a part of travel experience and there is a need to evaluate both services.

In addition, service process consists of sub-processes, each of sub-processes contributing towards a service in question and affecting customer experience (Gliatis & Minis, 2007; Nabosu, 2013; Tolpa, 2012). According to Chang and Yeh (2002) one way to measure service quality is to define a numberof distinctive attributes. Therefore Tolpa (2012) has identified eight steps of passenger travel cycle: these include ticket purchase, pre-flight services, check-in, airport services, departure, inflight services, arrival, and post arrival services.

Ticket purchase is the first step of travel cycle. Nowadays tickets purchasing is mostly done online or through travel agencies. Most passengers purchase tickets without direct contact with the airline and their first contact with a carrier happens at the check-in step. Ticket purchase consists of several steps: searching for information, ticket selection and purchase process. For passenger satisfaction, trust and loyalty, airlines should easily provide on ticket prices, flight schedule in addition to accurate and speed of reservation and ticketing.

Pre-flight services are the second step of travel cycle. There are a number of services offered before the flight; however, they widely vary from airline to another. For example, email or text message reminder has become rather common to be sent aday before the flight or when the online check-in is open (usually 36 or 24 hours before the flight. In addition, in many cases airlines offer their clients the opportunity to bring their luggage a dayin advance, (e.g. Finnair) (R. Badr-El-deen, S. Hasan, & N. Fawzy, 2016a). The key attributes for pre-flight services step include availability of pre-flight services (early baggage check-in, email reminder), airport accessibility, and available parking facilities.

Check-in is the third step in the passenger travel cycle**.** Check-in services have witnessed major changes and are almost fully enabled by technology. Whilstin many places regular check-in is still available (smaller airports, leisure destinations), there are options to check-in online, via text message or via check-in machines at the airport. The attributes for check-in step include ease, accurate and speed check-in processes, and availability of more than one check-in option, courteous and helpful employees of the airline in case of traditional check-in orif there are any troubles with automated check-in.

Airport services are the travel cycle fourth step. These services encompass security checks, duty free shopping, meal services and airline lounge or airport lounges. Airport services may also include tourist information services, currency exchange kiosks, and connections to nearby hotels, etc. Also, communication via email or Facebook to inform the customers about the delays or potential queues may be provided. The most important attributes for airport services step include the airline's comfortable waiting lounges, the airport necessary facilities and cleanliness and helpful employees.

Departure services are the fifth step in passenger travel cycle. The attributes of this step include accurate flight departure and arrival at a time it promises, in case of delay, immediate airline announcement, information on length of waiting, possibility to receive food vouchers, stay at the hotel, or rebook a flight. On board services are the sixth step. The attributes of this step include the in-flight entertainment facilities/programs, the airline good quality food and beverages, the airline onboard shopping with wide selection of products, courteous and helpful crew, and clean and comfortable facilities and seats.

Arrivalis the seventh step in the travel cycle. On-time arrival is the key component of customer's perception of a good service quality. Post-arrival services are the last step in the passenger travel cycle. These services include information on lost luggage, and help upon arrival (Westwood, Pritchard, & Morgan, 2000). The key component in this step is mishandled luggage (lost, broken, missing, or delayed) (Gilbert & Wong, 2003). However, it is worth noting that often airlines outsource their luggage handing to third party supplier (may be local airport services, or a company providing service personnel on leasing base) and thus are not directly delivery the service themselves. In case of the airport providing baggage services, the delivery of baggage can be affected by a variety of factors such as holiday seasons, peak day times, etc. Nevertheless the carriers should understand that from the customer point of view, it is still an airline giving

those services, and thus it is important to make sure that the service is standard in this stage too. Other attributes include promptness and accuracy of baggage delivery, offering travel-related partners such as car rentals, hotels and travel insurance where you can get discounts or earn extra miles (Osman & Ashraf, 2014).

Differently, Khatib (1998) has classified the eight steps aforementioned into three main stages: pre-flight, in-flight and post flight services. Pre-flight services include services of reservation and buying ticket, airport services, check in services, and security procedures. Inflight services include cabin staff service, food quality, air plane characteristics, reading material and video showing, and security conscious. Post flight services include on-time arrival waiting for baggage, lost baggage, airline responsibility for delayed passenger, complain system, staff assistant when arrival, and connections and transit facilities.

PASSENGER SATISFACTION AND LOYALTY

The difference between satisfaction and loyalty is that satisfaction is the feeling that makes a positive action towards something, and therefore, people behave according to their attitudes (Dickinson, 2013). The customer satisfaction is an important competitive advantage that a business needs (Kendall, 2007). Passenger satisfaction and loyalty are prime concerns to airlines. Loyalty is significantly associated with satisfaction with a service (Berkman & Gilson, 1986) and therefore customers select airlines that provide better services (Al-Medabesh & Ali, 2014).

(Badr-El-deen et al., 2016a; R. Badr-El-deen, S. Hasan, & N. Fawzy, 2016b) and Khatib (1998) have proved that passenger satisfaction is predicted by different quality dimensions. They found that reservation, scheduling and check in services are mostly important influencing customer satisfaction. Bahraini, Akbar, Azad, and Izadi (2013) found that staff appearance and cleanliness are crucial factors predicting satisfaction. Archana and Subha (2012) suggested in-flight service, in-flight digital service and back-office operations are predictors of international air passenger satisfaction. Online booking is another dimension in back-office operations.

On the other hand, Tolpa (2012) highlighted the importance of available information on tickets, flight schedule, flight delay and baggage delivery delay. Zadeh, Mehrabi, Mastcheshmi, and Nasiri (2015) ranked the factors affecting passengers' satisfaction starting with company's name and reputation, services offered to the frequent flier passengers; quality of the services; satisfaction with prices, flexibility demonstrated by the company and safety of flights. Kankaew (2013) found that safety, variety of flight schedule, spacious seat, price, ease of reservation, efficiency of baggage handling, and staff courtesy are influential factors of satisfaction. On the other hand, Munusamy, Chelliah, and Pandian (2011) found that pre-flight services, customer relationship management, cabin environment and in-flight services have positive significant relationships with customer satisfaction. In addition, Mahmoud, Jusoff, and Hadijah (2013) proved that customer satisfaction is positively affecting customer loyalty. Loyalty means customers will re-purchase or re-use the flight services in the future and will recommend it to others.

From a different perspective, Suki (2014) has divided airline facilities/services to tangible and intangible. Tangible facilities include airline tangible-related facilities and terminal tangible facilities. Airline tangible-related facilities include airplane cleanliness, and comfort level of seats and design while terminal tangible facilities include airport capacity, parking space availability, shops, and comfort level of waiting halls, effective air-conditioning, and reliable security system. In addition, he added that 'empathy' is another factor affecting passenger satisfaction. It is related to employees' professionalism and courtesy in serving passengers.Suki (2014) found that tangibles significantly affect passenger satisfaction.

RESEARCH FRAMEWORK

Build upon the aforementioned causal relationships between service quality, satisfaction and loyalty, this study investigates the influence of air passenger travel cycle services on their satisfaction and loyalty. The travel cycle adopted in this study is adapted from previous studies (i.e., Khatib, 1998; Tolpa, 2012) and it consists of three stages: pre-travel, inflight, and post travel. Each stage has a number of services. Therefore the study has four main relationships (hypotheses) to test (Figure 1). The first three hypotheses look at the cause-effect relationships between pre-travel, infight, and post travel services and passenger satisfaction. The fourth relationship is between satisfaction and passenger loyalty.

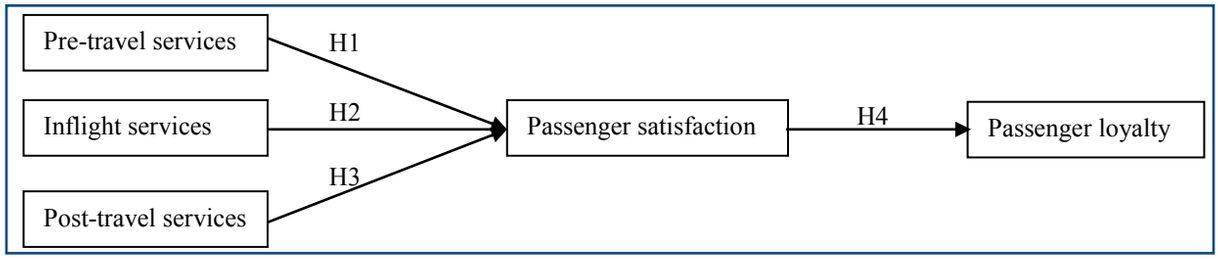

Fig. 1: The Research Framework: Three-stage Travel Cycle and Passenger Satisfaction and Loyalty

The research framework appears in Figure (1) measures the effect of pre-travel services (H1), inflight services (H2), post-travel services (H3) on passenger satisfaction, then it tests the influence of air passenger satisfaction on their loyalty (H4).

The other perspective employed in this study is adapted from Suki (2014) who divided the dimensions of airline quality to airline tangibles, terminal tangibles, and empathy and measured their effect on passenger satisfaction. According this approach, the study has divided the passenger travel cycle facilities into four categories (i.e. tangible facilities, intangible services, available information (on flights, reservations, and luggage), and the commitment of the airline to declared times (departure, arrival, and baggage delivery). Therefore, the second proposed framework of this study measures the impact of these four dimensions on passenger satisfaction and loyalty (Figure 2).

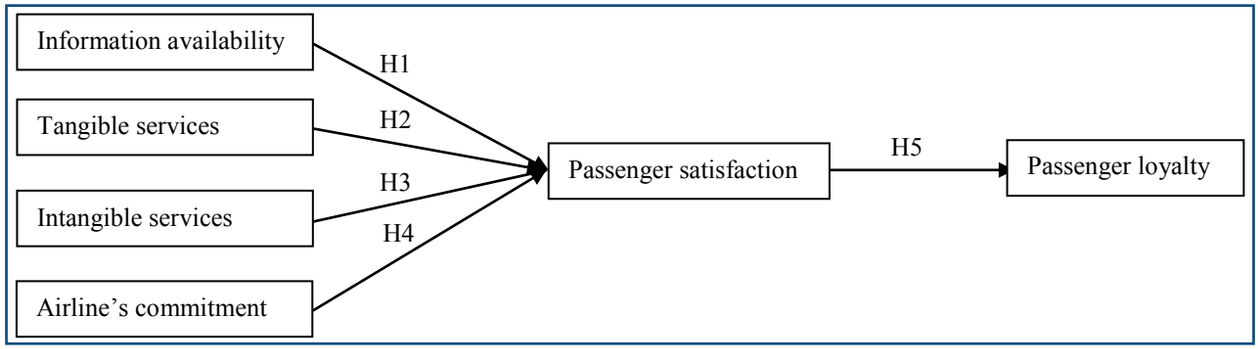

Fig. 2: The Research Framework: Service Processes and Passenger Satisfaction and Loyalty

The research framework appears in Figure (2) investigates the impact of information availability (H1), tangible services of the airlines (H2), intangible services (H3), and airline's commitment (H4) on passenger satisfaction, then it measures the effect of passenger satisfaction on their loyalty (H5).

RESEARCH METHODOLOGY

The study uses the quantitative approach to test the research hypotheses. It uses a questionnaire form to collect data from EgyptAir and Emirates airlines. The questionnaire targets the international passengers who traveled on EgyptAir and Emirates airlines in the last 12 months. The questionnaire followed the classification of passenger travel cycle: pre-travel, inflight, and post travel services. The questionnaire form was designed based on literature studies including 8 statements for pre-travel services, 5 statements for inflight services, and 4 statements for post travel services, 3 statements for passenger satisfaction and 5 statements for passenger loyalty (Table 4). All statements were 5-point Likert scale. Other information included passenger gender, age, purpose of travel, number of flights in the last 12 months, and if they are members of the airline or not.

The questionnaire form was designed in Arabic and English languages and piloted on 40 passengers to improve its construct and face validity. The form was available in both printed and online formats. Passengers were selected randomly in Cairo International Airport and were asked to complete the form. Upon their consent, they select the format (printed or online) and the language based on their preferences. The data collection lasts for 7 months (April-October 2015). Free of missing data and valid for analysis, 150 forms were collected from Emirates airline passengers and 180 from EgyptAir passengers. The random sample technique was employed in this study to collect data from passengers due its advantage in collecting perceptions and to decrease the bias level in responses.

Structural equation modelling (SEM) is the advanced multivariate technique used for testing causal relationships was used in this study to test research hypotheses and validating the measurement models. According to this

technique, the measurement models are valid and reliable if average variance extracted (AVEs) for each construct exceeds 50% (evidence of convergent validity) (Fornell & Larcker, 1981), square roots of AVEs are greater than correlations among constructs (evidence of construct validity)(Kock, 2015), Cronbach's alpha and composite reliability exceed 70% for reliable measurement models (Field, 2009; Hair, Black, Babin, & Anderson, 2010). The study has two measurement models (Tables 4 and 5). The first includes the travel services based on passenger travel cycle (pre-travel, inflight, and post-travel services) and the second has four categories of services (i.e., information availability, tangible services, intangible services, and airline commitment to the declared travel times and dates).

RESEARCH SETTINGS

This study compares the perceptions of EgyptAir, the Egyptian national company, and the Emirates airline, one leading Arabian air company.

EgyptAir is the national airline of Egypt. It started operations in May 7th 1932 as the first airline in the Middle East and Africa and the seventh airline in the world to join IATA and become a treasured brand. Throughout its 80 years of service, EgyptAir has experienced significant growth.

The nine subsidiaries of EgyptAirplay complementary roles in the air transport services industry. In addition, EgyptAir Holding Company has a highly reputable and advanced Training Centre, which provides training programs in various fields for EgyptAir. One of the factors in its success is its team spirit, which drives the team to be looking constantly for the best possible services being given to its customers, partners, and stakeholders.

Currently, the EgyptAir fleet consists of 79 aircraft travel to 79 destinations in 53 countries, fulfilling the needs of both business and leisure travellers. In July 11th2008, EgyptAir has officially become the 21stmember of Star Alliance. The nine subsidiaries of EgyptAir are EgyptAir Airlines, EgyptAir Cargo, EgyptAir Maintenance & Engineering, EgyptAir Medical Services, EgyptAir Supplementary Industries, EgyptAir Express, EgyptAir Tourism (Karnak) & Dutyfree, EgyptAir In-Flight Services, and EgyptAir Ground Services (see more atEgyptAir (2016).

Emirates Airline was created in 1985. Only after six years of operation Emirates flied to 23 destinations. In 1992 Emirates was the first airline to install screens with inflight entertainments in all classes. In 1996 they open the Flight Center for their staff. The important step in terms of marketing and loyalty programs – frequent flyer program – was launched in 2000 (Emirates, 2010). Since the beginning of setting a new airline, the management had a strong orientationfor exceptional service and quality. Even the ambition since the first year was to become the best Airline in the Middle East and then in the World (Wilson, 2007).

Emirates airline is known with their modern fleet, luxurious designs in premium cabin, beautiful lounges and modern shower spa's on board. In June the fleet counted 235 aircraft made up of 221 passenger aircraft and 14 cargo aircraft. Emirates is the world's fourth largest airline by scheduled revenue passenger-kilometers flown, the fourth-largest interms of international passengers carried. Emirates launched the longest non-stop commercial flight from Dubai to Auckland on 1 March 2016.

RESEARCH FINDINGS

Descriptive statistics

Findings revealed that 63.5% of EgyptAir respondents were male versus 83.1% for Emirates airlines. 30.2% of EgyptAir respondents are between 30 and 35 years, 40.2% are more than 40 years, and 23.8% are 36 to 40 years. 38.6% of Emirates' respondents are between 36 and 40 years, 20.5% are more than 40 years and 16.9% are 30 to 35 years. 41.1% of EgyptAir respondents travel for business/work purpose, 33.3% travel for leisure, and 15.9% for medical reasons. For Emirates' respondents, 48.2% travel for business/work, 27.7% travel for leisure, 20.5% travel for medical purposes. For times of travel in the last 12 months, 49.2% of EgyptAir respondents travelled 1-2 times versus 47% for Emirates, 34.9% travelled 3-5 times for EgyptAirversus 38.6% for Emirates, 9.5% travelled 6-10 times for EgyptAir versus 10.8% for Emirates and 6.3% travelled more than 10 times for EgyptAir versus 3.6% for Emirates.25.4% of EgyptAir respondents have the membership of EgyptAir and that mostly affects their selection of EgyptAirwhile 27.7% of Emirates' respondents are members of the airline with a small effect on their selection of Emirates airlines (Table 1).

Table 1. Descriptive Statistics of EgyptAir and Emirates Airlines' Respondents

		EgyptAir (%)	Emirates Airlines (%)
Gender	Male	63.5	83.1
	Female	36.5	16.9
Age	20-24 years	6.3	1.2
	25-29 years	9.5	6.0
	30-35 years	30.2	16.9
	36-40 years	23.8	38.6
	More than 40 years	30.2	20.5

		EgyptAir (%)	Emirates Airlines (%)
Purpose of travel	Leisure	33.3	27.7
	Business	41.3	48.2
	Medical	15.9	20.5
	Other	9.5	3.6
Number of flights in the last 12 months	1 to 2 times	49.2	47.0
	3-5 times	34.9	38.6
	6- 10 times	9.5	10.8
	More than 10 times	6.3	3.6
Has airline membership	Yes	25.4	27.7
	No	74.6	72.3

Table (2) presents the mean values and standard deviations for the study's constructs. Independent-samples T-test was used for difference analysis. It is revealed that mean values range from 'neutral' responses to 'agree' and no significant differences were observed between the responses of customers for both airlines.

Table 2: Mean Values, Standard Deviation and T-Test for Research Constructs

Constructs	Airline	Mean	Std. Deviation	T-value	Sig.
Pre-travel services	EgyptAir	3.69	.906	-.327	.744
	Emirates	3.74	.981		
Inflight services	EgyptAir	3.43	.899	-1.860	.065
	Emirates	3.72	.955		
Post travel services	EgyptAir	3.38	.882	-1.445	.151
	Emirates	3.60	.921		
Satisfaction	EgyptAir	3.40	.976	-1.063	.290
	Emirates	3.58	1.042		
Loyalty	EgyptAir	3.48	.968	-.767	.444
	Emirates	3.62	1.134		

Looking at the mean values, standard deviation and differences between both airlines based on service categories, Table (3) revealed that no significant differences between responses of both airlines' respondents and mean values range from 'neutral' to 'agree'.

Table 3: Mean Values, Standard Deviation and t-test for Research Categorized Services

Constructs	Airline	Mean	Std. Deviation	T-value	Sig.
Information availability	EgyptAir	3.71	.934	-.262	.794
	Emirates	3.76	.928		
Tangible services	EgyptAir	3.42	.889	-1.343	.181
	Emirates	3.63	.949		
Intangible services	EgyptAir	3.57	.893	-.943	.347
	Emirates	3.72	.972		
Commitment to declared times	EgyptAir	3.50	.887	-1.416	.159
	Emirates	3.73	1.028		

MEASUREMENT MODELS

The measurement models aims at validating the constructs used in the study. The Study has two main measurement models; the first is categorizing research constructs based on passenger travel cycle (pre-travel, inflight, and post-travel services, see Table 4), while the second is categorizing constructs based on services type (tangible services, intangibles, commitment to declared times, and information availability, see Table 5). Each model is divided in two models, one is related to EgyptAir and the other is concerned with Emirates airlines. Each model has its model fit thresholds.

For the first model (Pre-travel, inflight, and post-travel services, Table 4), the model fit indices for EgyptAir are: Average path coefficient (APC)=0.431, P<0.001, Average R-squared (ARS)=0.686, P<0.001, Average adjusted R-squared (AARS)=0.675, P<0.001, Average block VIF (AVIF)=3.379, Average full collinearity VIF (AFVIF)=3.808, Tenenhaus GoF (GoF)=0.714, Sympson's paradox ratio (SPR)=1.000, R-squared contribution ratio (RSCR)=1.000, Statistical suppression ratio (SSR)=1.000, and Nonlinear bivariate causality direction ratio (NLBCDR)=1.000, and all indices are within target thresholds. For Emirates model, the fit indices are: APC=0.455, P<0.001, ARS=0.789, P<0.001, AARS=0.783, P<0.001, AVIF=4.060, AFVIF=4.866, GoF=0.787, SPR=1.000, RSCR=1.000, SSR=1.000,and NLBCDR=1.000.

For the second model (categorized based on services type, Table 5), the fit indices for EgyptAir are: APC=0.343, P<0.001, ARS=0.685, P<0.001, AARS=0.671, P<0.001, AVIF=4.778, AFVIF=4.465, GoF=0.712, SPR=1.000, RSCR=1.000, SSR=1.000, and NLBCDR=1.000. As for Emirates model, the indices are: APC=0.363, P<0.001, ARS=0.784, P<0.001, AARS=0.777, P<0.001, AVIF=4.360, AFVIF=4.895, GoF=0.786, SPR=1.000, RSCR=1.000, SSR=1.000, and NLBCDR=1.000. for all models, convergent validity is evident (AVEs>0,50), discriminant validity exists (SQAVE > correlations among constructs), Cronbach's alpha and composite reliability exceed 0.70 and the measurement models are valid and reliable.

Table 4: Measurement Model for Travel Cycle (pre-travel, inflight, and post-travel services)

Constructs	Indicators	EgyptAir					Emirates				
		Loadings	AVEs	C. Alpha	CR	SQAVE	Loadings	AVEs	C. Alpha	CR	SQAVE
Pre-travel services	Available information on tickets	0.858	0.684	0.933	0.945	0.827	0.900	0.709	0.941	0.951	0.842
	Available information on luggage	0.869					0.825				
	Easy and accurate reservation	0.875					0.878				
	Easy and speed check-in	0.838					0.856				
	Various options of check-in	0.818					0.813				
	Courteous/ helpful check-in employees	0.847					0.857				
	Comfortable waiting lounges	0.763					0.817				
	Departure at promised time	0.739					0.783				
Inflight services	Clean/ comfortable facilities and seats	0.880	0.681	0.880	0.914	0.825	0.804	0.748	0.915	0.937	0.865
	Courteous/ helpful inflight employees	0.814					0.901				
	Inflight entertainment facilities	0.859					0.888				
	Good quality food and beverages	0.889					0.918				
	On-board shopping products	0.664					0.805				
Post-travel services	Arrival at promised time	0.791	0.676	0.839	0.893	0.822	0.845	0.688	0.849	0.898	0.830
	Prompt/ accurate baggage delivery	0.832					0.848				
	Serious luggage delay/loss handling	0.883					0.842				
	Information on travel-related partners	0.778					0.782				
Satisfaction	I am pleased that I flied on this airline	0.947	0.857	0.916	0.947	0.926	0.954	0.894	0.940	0.962	0.945
	Services exceeded my expectations	0.886					0.920				
	Overall I am satisfied with the airline	0.942					0.961				
Loyalty	I intend to re-use the same airline	0.860	0.820	0.945	0.958	0.906	0.942	0.890	0.969	0.976	0.943
	This airline will be my first choice	0.894					0.933				
	I will recommend the airline to others	0.940					0.965				
	I will speak highly of this airline	0.923					0.931				
	I will encourage friends to use this airline	0.910					0.946				

Note: AVE=Average variance extracted, C. Alpha= Cronbach's alpha, CR=Composite reliability, and SQAVE=square root of AVE

Table 5: Measurement Model for Travel Cycle (according services type)

Constructs	Indicators	EgyptAir					Emirates				
		Loadings	AVEs	C. Alpha	CR	SQAVE	Loadings	AVEs	C. Alpha	CR	SQAVE
Information availability	Available information on tickets	0.903	0.727	0.808	0.888	0.853	0.894	0.696	0.776	0.872	0.834
	Available information on luggage	0.912					0.896				
	Information on travel-related partners	0.731					0.697				
Tangible services	Comfortable waiting lounges	0.759	0.663	0.869	0.907	0.814	0.752	0.692	0.887	0.918	0.832
	Clean/ comfortable facilities and seats	0.842					0.797				
	Inflight entertainment facilities	0.876					0.878				
	Good quality food and beverages	0.897					0.913				
	On-board shopping products	0.675					0.810				
Intangible services	Easy and accurate reservation	0.872	0.668	0.900	0.923	0.818	0.875	0.727	0.925	0.941	0.853
	Easy and speed check-in	0.856					0.866				
	Various options of check-in	0.845					0.846				
	Courteous/ helpful check-in employees	0.827					0.861				
	Courteous/ helpful inflight employees	0.706					0.864				
	Serious luggage delay/loss handling	0.788					0.801				
Commitment to declared times	Departure at promised time	0.855	0.704	0.787	0.877	0.839	0.925	0.825	0.894	0.934	0.908
	Arrival at promised time	0.904					0.924				
	Prompt/ accurate baggage delivery	0.750					0.875				

Note: AVE=Average variance extracted, C. Alpha= Cronbach's alpha, CR=Composite reliability, and SQAVE=square root of AVE

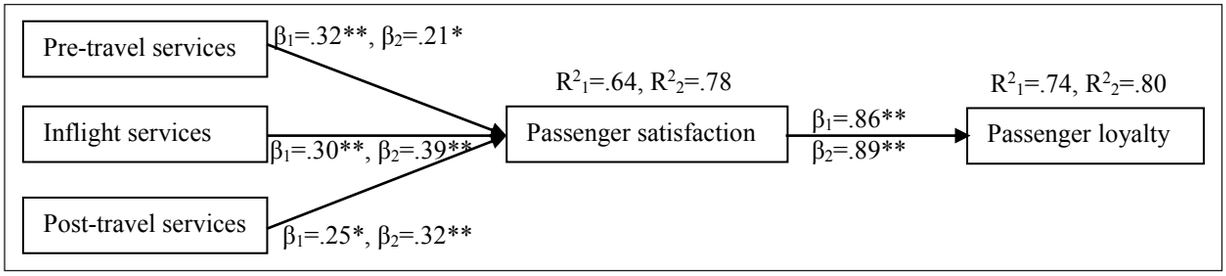

Fig. 3: Structural Model for Travel Cycle (pre-travel, inflight, and post-travel services)

Note: β1 and R21 are the values of EgyptAir model while β2 and R22 are the values of Emirates model, ** = P<0.01, and * =P<0.05

Structural Models

The structural model looks at the causal relationships among research constructs. It is the hypotheses-testing technique. This study has two structural models. The first investigates the cause-effect relationships between passenger travel cycle constructs (pre-travel, inflight, and post-travel services) on passenger satisfaction and its effect on customer loyalty (Figure 1). It is revealed that pre-travel services have the greatest effect on passenger satisfaction for EgyptAir (β=.32, p<.01), followed by inflight services (β=.30, p<.01), and post-travel services β=.25, p<.05). However for Emirates airlines, it is found that inflight services have the greatest effect on passenger satisfaction (β=.39, p<.01), followed by post-travel services (β=.32, p<.01), and pre-travel services (β=.21, p<.05). Pre-travel, inflight, and post-travel services explain 64% of variance in passenger satisfaction for EgyptAir and %78 for Emirates' passengers. Passenger satisfaction has a significant positive impact on loyalty for both airlines (β=.86, p<.01 for EgyptAir and β=.89, p<.01 for Emirates). Passenger satisfaction interprets 74% of the change in customer loyalty for EgyptAir and 80% for Emirates. From Figure (3), it is clear that the four hypotheses were supported.

The second structural model shows the cause-effect relationships among types of services (tangibles, intangibles, information availability, and airline commitment to declared times) (Figure 4). It is revealed that tangible services have the highest effect on EgyptAir passenger satisfaction (β=.34, p<.01), followed by information availability (β=.28, p<.01), while intangible services and airline commitment to declared times have insignificant effect on passenger satisfaction. For Emirates' passengers, it is found that tangible services have the greatest effect on passenger satisfaction (β=.37, p<.01), followed by intangible services (β=.29, p<.01), and information availability (β=.19, p<.05), while airline commitment to declared arrival and departure times have insignificant influence on passenger satisfaction. The first two hypotheses were supported for the EgyptAir model while the first three were supported for Emirates. Tangible services and information availability explain 60% of variance in EgyptAir passenger satisfaction which in turns explains 70% of customer loyalty, while tangible services, intangible services, and information availability explain 77% of Emirates passenger satisfaction, which in turn explain 80% of passenger loyalty. Passenger satisfaction in both airlines is significantly and positively influencing passenger loyalty and the fifth hypothesis is supported.

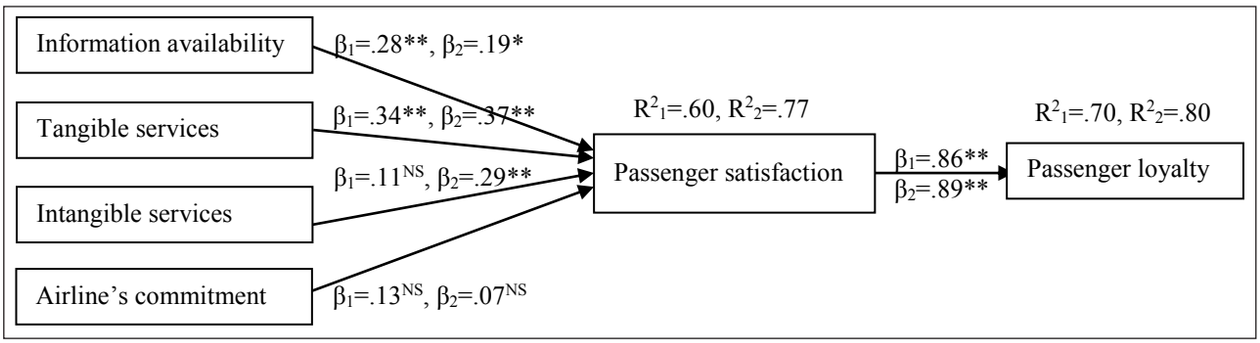

Fig. 4: Structural Model for Travel Services

*Note: β1 and R21 are the values of EgyptAir model while β2 and R22 are the values of Emirates model, ** = P<0.01, * =P<0.05, and NS= not significant.*

DISCUSSION OF FINDINGS

This study aims at investigating the factors that mostly affecting passenger satisfaction and loyalty in airlines. It compares two companies in the Arab world, the oldest company, EgyptAir, and the most famous for a good service and fleet, Emirates. The study has two models to measure the effect of travel factors on passenger satisfaction. The first model is a general overview to evaluate the effect of pre-travel, inflight, and post-travel services on passenger satisfaction, while the second model is more-detailed measuring the effect of certain services on passenger satisfaction.

Looking at the first research model based on passenger travel cycle staring with services done before travel including searching information on airline tickets, baggage policies, reservation, dates and times of travel, check-in options and helpful assistance of airline employees, it is revealed that passengers are satisfied with these services in general in both airlines although EgyptAir passengers seem to be a bit more satisfied more than Emirates passengers. However there was no significant difference between the opinions of both airline passengers. Generally, passengers' opinions in both airlines ranged from 'neutral' to 'agree' responses with pre-travel services. Apparently, passengers find pre-travel services acceptable and it helps them searching for information, make

reservations, and helpful check-in employees. This finding is in line with Khatib (1998) who has proved that passenger satisfaction ispredicted by different quality dimensions including pre-travel services.

Moving to inflight services, it is found that Emirates' passengers are more satisfied with these services than EgyptAir passengers. They are more satisfied with cleanliness and aircraft comfortable facilities and seats, courteous employees on-board, entertainment facilities, good quality food and beverages, and on-board wide selection of shopping products. This could be explained through the modern aircrafts and entertainment and welfare facilities provided by Emirates airlines. However there were no significant difference found between opinions of both airlines' passengers, it is found that inflight services affect passenger satisfaction level in both airlines. This finding is concurrent with Zadeh et al. (2015) who stated that service quality offered to the frequent flier passengers is a predictor of passenger satisfaction.

Looking at post-travel services, it is found that passengers of both airlines are to some extent satisfied with. Although no significant difference between opinions of both airlines' passengers, Emirates' passengers are almost satisfied with arrival times, prompt baggage delivery, serious handling of complaints and information provided on travel-related partners (i.e., car rentals, hotels) that EgyptAir passengers do. However, findings revealed a positive effect of post-travel services on passenger satisfaction. This finding is similar to this of Tolpa (2012) who highlighted flight delay and baggage delivery delay as important factors affecting customer satisfaction.

From another perspective, the second structural model has measured passenger satisfaction with specific services. It is revealed that EgyptAir and Emirates' passengers are to some extent satisfied with information availability of the airlines. This includes information on tickets, on luggage, and on travel-related partners. It is noticed that EgyptAir passengers are satisfied with this availability than their peers of Emirates. According to passengers' perceptions, information availability is significantly and positively affecting their satisfaction level. This finding is similar to Tolpa (2012) who depicted the importance of available information as a passenger satisfaction antecedent.

Additionally, tangible services were found significantly influencing passenger satisfaction in both airlines. This means that passengers of both airlines are satisfied with comfortable waiting lounges, clean/comfortable facilities and seats, inflight entertainment facilities, good quality food and beverages, and on-board shopping products. These tangible services were found a crucial factor contributing to passenger satisfaction. This is concurrent with the findings of Suki (2014) who stated that tangible services are indicators of passenger satisfaction. Furthermore, while the Emirates' passenger are satisfied with intangible services and believe it has a significant effect on satisfaction, EgyptAir passengers were found not satisfied about such services and it does not contribute to their satisfaction about EgyptAir services in this area. Intangible services include easy and accurate reservation, easy and speed check-in, various options of check-in, courteous/helpful check-in employees, courteous/helpful inflight employees, and serious luggage delay/loss handling. To further check these services for EgyptAir passengers, they have 'neutral' responses on on-board courteous/helpful employees and serious handling of baggage delay/loss. This finding for Emirates is in line with a previous study by Suki (2014) who added that empathy and employees' professionalism and courtesy in serving passengers are other factors affecting passenger satisfaction. These services represent a challenge for EgyptAir.

Differently, it is found that passengers of both airlines are not satisfied with the airline commitment to the declared times for departure, arrival and luggage delivery. EgyptAir passengers have 'neutral' opinions on accurate departure time and prompt luggage delivery. It is revealed that the airline's lack of commitment to declared times does not significantly maximize the passenger satisfaction. The emphasis of Tolpa (2012) on flight delay and baggage delivery delay as contributors to passenger satisfaction reflects the challenges facing both airlines in these services. Although delays sometimes could be out of airlines control, but it still an indicator of high quality airlines and loyal passengers.

Both models have measured the effect of satisfaction predictors in addition to the influence of passenger satisfaction on their loyalty. Feeling satisfied with services creates a positive attitude of passengers that leads them to be loyal taking behaviour to travel with the same airline again or disseminate positive sides of the airline to others, or recommend others to use the services of these airlines. The findings revealed that passenger satisfaction has a positive influence on loyalty. This finding is similar to Mahmoud et al. (2013) who found that customer satisfaction is positively affecting customer loyalty in a way customers will re-purchase or re-use the flight services in the future and will recommend it to others.

CONCLUSION AND IMPLICATIONS

This study measures the effect of passenger travel cycle quality on their satisfaction and loyalty. It compares to big Arabian airlines, EgyptAir and Emirates airlines. Through its tested structural models, the study revealed that passengers of both airlines are satisfied with pre-travel, inflight, and post-travel services and these services have a positive effect on satisfaction which in turn contributes to their loyalty to the airline. But looking into details and investigating the

perceptions of passengers towards specific services provided by airlines, it is found that passengers of EgyptAir are satisfied with its tangible services and information availability, while both intangible services and airline commitment to declared times do not affect and contribute to passenger satisfaction. Similar results were revealed for Emirates airlines except that intangible services had a positive and significant effect on customers' satisfaction. Neutral opinions of passengers reflect the need to improve services provided in both airlines and insignificant constructs refer to challenges that both airlines need to face and enhance.

This study contributes to the extant knowledge by testing two models in which it highlighted that despite the satisfaction of passengers to overall pre-travel, inflight, and post-travel services, this is not an indicator that they are satisfied with the services provided at all. The two tested model incorporate different constructs built upon the same indicators and give different findings. Investigating perceptions of airline passengers on the whole travel cycle is a contribution of this study where most of previous studies measured the quality of ground services only or inflight services only. This study provides an overall understanding of the factors affecting passenger satisfaction in the whole journey starting from searching information on tickets to post-travel luggage delivery. In addition it highlights specific areas where passengers seem unsatisfied. Understanding the finding of this study could interpret the attitudes and behaviours of passengers towards airline companies.

For practical implications, this study provides empirical evidences from two big airline companies in the Arab world that there are some services need to be improved. Constructs of positive effect on passengers' satisfaction could be used by airline marketers to improve the image of the airlines and motivate passengers to use their services. However, insignificant effect services on passengers' satisfaction need airlines to reconsider their services re-evaluate it and improve the defects. While airline services are customer-centered, airlines need to have a continuous assessment of their services and improve it to increase their loyal customer base.

LIMITATIONS AND FUTURE RESEARCH

This study has a number of limitations. First it measures the effect of travel cycle services on satisfaction of passengers and did not look into reasons of why passengers are satisfied or not. Second it uses a random sample of international passengers without classifying if they are long-haul passengers or short-haul ones. Third it did not identify specific routes or distinguish between different classes (i.e, first class passengers, economy ones and so on). Future research venues need to address these limitations, qualitative research is needed to identify the reasons of dissatisfaction of passengers. Comparative investigations between long-haul and short haul journeys could be useful to identify the defects in services.

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