Customers Satisfaction towards some Flight Reservation, Scheduling and Check in Services: The Case of Egypt Air
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Abstract
The main aim of this study is to examine the airline service dimensions during the travel cycle perceived to be important by airline passengers, and to determine which passengers’ perceived service quality dimensions have a positive influence on customer satisfaction. Therefore, it is important to measure customer satisfaction towards these services. The study examined customer satisfaction with the flight reservation and scheduling services. More specific, it developed a survey to measure customer satisfaction with airline services.

Keywords: service, quality, customer satisfaction, travel cycle

Introduction
Civil aviation refers to “all airline flights and services offered to the traveling public” (Purzycki, 2000, p.111), accordingly airlines can be categorized into two main types full service carriers and low cost carriers.
Today, there is a highly competition in the airline market, the major players are evenly matched in terms of core services, they operate similar schedules and have comparable punctuality and safety records (Westwood et al., 1999). The service sector has assumed great economic importance over the past decade and enjoys the largest share in GDP (Adil, Ghaswyneh, & Albkour, 2013), as Services include all economic activities whose output is not a physical product or construction (Asiegbu,Igwe & Akekue, 2012).
It is defined as” any act or performance that one part can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical production” (Rafati & Shokrollahi, 2011, p.6).
Services exhibit two distinctive characteristics. First, services have a processual nature, that is, services emerge in processes and are directly influenced by the further evolvement of these processes .Second, customers are involved in the production of the given service through their interaction with the service provider. Consequently, they participate as co-producers in the production process and influence the nature of the service that is produced and consumed (Benner, 2009).
Therefore, services have a lot of characteristics as following (Thakor & Mistri, 2010) ;(Ikechukwu et a., 2012); (Degirmenci, Basligil, Bolat & Ozdemir, 2012):
1. Service is a type of economic activity that is intangible is not stored and does not result in ownership.
2. Service is consumed at the point of sale.
3. Services are one of the two key components of economics, the other being goods.
4. Service is generally consumed at the same time it is produced; and provides added value in forms (such as convenience, amusement, timeliness, comfort, or safety, health) that are essentially intangible concerns of its first purchase.
5. Service is benefit or satisfaction offered to the market activity or by depending on the sale of goods.

In the airlines, the airline product is not a physical item at all, but services that consumers find useful. There is a general understanding for goods but that there is no clear description defining services. He defined “goods as a thing and services as an act” (Bauernfeind, 2012, p.12).

Therefore, the main aim of this study is to examine the airline service dimensions that are perceived to be important by airline passengers, and determines which passengers perceived service quality dimensions have a positive influence on customer satisfaction.

As ensuring high rates of satisfaction should be the goal of every airline marketing department, since satisfaction has been positively correlated to customer, so the study demonstrates and tests empirically the existence of different relationships between airline service quality, passenger satisfaction.

In addition, the study develops a framework (theoretical and conceptual model) that identifies the main elements of each construct and examines possible causal relationships between the two concepts based on the discussion and review of the related studies in service quality and customer satisfaction.

**Literature review**

**Quality**

Quality is the keyword for survival of organizations in the global economy. Organizations are undergoing a shift from a production-led philosophy to a customer-focused approach (Rahman, Abdullah, Rahman, 2011) as the Quality means compliance with requirements (Degirmenci, et al., 2012).

Quality has been considered as being an attribute of an entity (as in property and character), a peculiar and essential character of a product or a person (as in nature and capacity), a degree of excellence (as in grade) and as a social status (as in rank and aristocracy) and in order to control and improve its dimensions it must first be defined and measured (Daniel & Berinyuy, 2010).

Therefore, there are various definitions of quality as following( Kurniawan, 2010; Daniel & Berinyuy, 2010):

1. The extent to which the difference between reality and expectations of customers for the services they receive.
2. An elusive and indistinct construct. Often mistaken for imprecise adjective like goodness, or luxury, or shininess, or weight.
3. Quality is product performance, which results in customer satisfaction freedom from product deficiencies, which avoids customer dissatisfaction. In brief, quality is zero defect -doing it right first time and meets the requirements of customer. All service should be aimed at meeting the customer”s requirements by eliminating non-quality traits (Erdil & Yıldız, 2011).

**Service quality**
Delivering high-quality service to customers is the key strategy to survive in today”s competitive service industries such as airline transportation services (Kenan & Yıldırım, 2012), as the service quality is considered as a critical dimension of competitiveness and providing excellent service quality and high customer satisfaction is the important issue and challenge facing the contemporary service industry (Baker, 2012) and has strong impact on business performance, lower costs, return on investment, customer satisfaction, customer loyalty and gaining higher profit (Baker, 2012).
Therefore, there are many definitions concerned on service quality as it can be defined as a consumer's overall impression of the relative the organization and its services (Huang, 2009).
According to the previous definitions Understanding exactly what customers expect is the most crucial step in defining and delivering high-quality service (Huang, 2009) as Customer”s expectation serves as a foundation for evaluating service quality because, quality is high when performance exceeds expectation and quality is low when performance does not meet their expectation ( Daniel & Berinyuy, 2010).

**Airline Service process attributes**
The process of airline services passes with two important phases before the flight as following:

**Reservation**
The airline ticket domain is characterized by adversarial risk in two contexts: the adversarial relationship between buyers and sellers, and the competitive relationships between the airlines providing service (Groves & Gini, 2012). As, the fluctuation in the prices of airline tickets through different distribution channels is a well-known phenomenon and is ascribed to airlines” revenue management systems (Udjo, Lubbe, & Douglas, 2012). Therefore, Airlines determine the prices to offer for each flight through a process called yield management, which is designed to maximize revenue given constraints such as capacity, and future demand estimates (Groves & Gini, 2012).
The process of Ticket purchase consists of several steps: searching for information, ticket selection and purchase process (Tolpa, 2012).
Airline passengers, have multiple distribution channels through which transactions can be made. These channels include supplier websites, a variety of online intermediaries and traditional travel agents (Udjo et al., 2012). In addition, there is a number of intermediaries exist to provide a single source of information for travelers, some of such websites provide only information, with ticket purchasing happening on other websites/airline own home pages, and some provide direct purchasing (Tolpa, 2012). For choosing the flight, there are three Airline System Schedules: the published Passenger Schedule, and the two Resource Schedules; a Schedule of Crew Trips, and a Schedule of Aircraft Rotations. These schedules, generated centrally for the entire airline, are considered the primary schedules for the airlines. These System Schedules define all airline operations, and must be completed in advance to allow the stations to generate the Station Schedules (Grandeau, 1995).

**Scheduling and Check-in**

To a customer, a front-line employee personifies the firm. Everything that the front-end individuals do or say can influence the customer's perceptions of the organization (Oyewole, Sankaran, & Choudhury, 2007). In assembling connecting complexes, one critical decision is how much time to put between the end of the arrival bank and the beginning of the departure bank, known as the bank interval (Grandeau, 1995). Therefore, the attributes for check-in step are as follows (Tolpa, 2012):

1. Ease, accuracy and speed of check-in.
2. Availability of more than one check-in option
3. Employees of the airline are courteous and helpful in case you use traditional check-in or have trouble with machine check-in.

To do this, Airlines have turned to the lounge as an important marketing tool to establish their brand and profile their services by creating a unique passenger experience for premium passengers that sets them apart from the competition (Booth, 2010).

**Perception**

Initially, Perceptions are defined in various ways such as “the process of receiving, organising and assigning meaning to information or stimuli detected by the customer”’s five senses and opine that it gives meaning to the world that surrounds the customer” (Manuel, 2008). It is also defined as “the process by which an individual selects, organizes, and interprets information inputs to create a meaningful picture of the world” (Tung, 2003). So, each customer perceives the world differently, and perceptions are manifested as attitude (Tung, 2003) and Customer justice perception is a multifaceted construct, encompassing three dimensions: distributive justice, procedural justice, and interactional justice (Yi & Gong, 2008).
It may be important to distinguish customer justice perception from the related concept of service quality. First of all, there is a conceptual difference between customer justice perception and service quality. That is, customer justice perception is based on psychological contract between the individual and the organization. Thus, customer justice perception is the evaluation of whether the service organization has fulfilled its obligation to provide the results and benefits it had promised (Yi & Gong, 2008).

**Expectations**
The expectations has been viewed as playing a key role in consumer evaluation of service quality (Kenan & Yildirim, 2012) and play an important part in decision making regarding the uncertain future (Andersson & Liedman, 2013) as they are among the factors influencing the service decisions of airlines (Aydin & Yildirim, 2012).
The dynamic of expectations is important to understand in order to manage the expectations into becoming achievable to obtain a high level of customer satisfaction (Andersson & Liedman, 2013).
Therefore, the needs, wants, and preconceived ideas of a customer about a product or service. Customer expectations will be influenced by a customer’s perception of the product or service and can be created by previous experience, advertising, hearsay, awareness of competitors, and brand image (Andraski, 2010).
There is a relationship between expectations and perceptions, which is divided in three parts, when the customers perceive lower than their expectations, they are unsatisfied. When they perceive as equal as their expectations, they are satisfied and finally when they perceive more than their expectations, they are delighted (Rafati & Shokrollahi, 2011).
At this point, the „voice of the customer” should be taken into the design process and after delivering the services, service providers should monitor how well the customers” expectations have been met (Güreş et al., 2011).

**Customer satisfaction**
The customer satisfaction may be a basic standard of service performance and a possible standard of faultlessness for any business organization (Byambaa & Chang, 2014), as it is one of the most important issue concerning business organization of all types, which is justify by the customer oriented philosophy and the principles of continues improvement.
El - Emam defined it as the result of interaction between the consumer’s pre-purchase expectations and post purchase evaluation (Abdallat & Emam).
From the previous definitions, many aspects of customer satisfaction concept should be noted (Khatib, 1998):
- Satisfaction is described as a complex and multivariate construct.
Cognitive processes such as perception and evaluation are emphasised; these features identify customer satisfaction as something different from the simple reinforcement of rewarding behaviour.

Expectations serve as the normative standard in the appraisal process. This matter differentiates satisfaction from an objective evaluation of product characteristics. It provides a better explanation for behavioral intentions.

In the other hand, operationally, satisfaction is similar to an attitude, as it can be assessed as the sum of the satisfactions with the various attributes of the product or service. However, while attitude is a pre-decision construct, satisfaction is a post decision expectation construct (Kurniawan, 2010).

So, customer satisfaction is the most important competitive advantage that an organization can have (Kendall, 2007) and Satisfaction and loyalty are not surrogates for each other (Huang, 2009), therefore, customer satisfaction should be the primary focus of all organizations (Kendall, 2007). The more the customer satisfaction is, the lower the transaction costs are and the higher the fidelity is (Degirmenci et al., 2012).

Customer satisfaction importance
The importance of customer satisfaction is derived from the generally accepted philosophy that for a business to be successful and profitable, it must satisfy customers, in addition there are a lot of benefits are gained from this as following (Clemes, Gan, Kao, & Choong, 2008; Dovalienè et al., 2007; Okumu, 2013; Byambaа & Chang, 2012; Rafati & Shokrollahi, 2011; Naik, Gantasala, & Prabhakar, 2010; Okumou, 2012):

- It has a great influence in longevity of customer relationships with service provider.
- It has a positive effect on the profitability of a company.
- The customer who is satisfied due to the good customer relation marketing will repurchase, be loyal to the brand and will give positive word of mouth.
- Satisfying customers helps in customer loyalty to the point that it becomes the prerequisite for maintaining a good customer relationship.
- Reduces price sensitivity, increases cross-buying, increases positive word of mouth, and increases customer loyalty.
- The organizations keep current customers, which is more profitable than having to win new ones to replace those lost.
- The organization receives fewer complaints, hence reducing costs in handling failures.

The theoretical model and hypotheses
The basic theoretical model of the study is shown in figure 1. The model represents the relationships between perceived service quality during the pre-flight services and passenger satisfaction. These relationships can be drawn in
the following manner: Perceived airline service quality during the travel cycle influences customer satisfaction. This proposed model has its origin in the literature of service quality and customer satisfaction.

Figure 1: the proposed theoretical Model

In this study, it is assumed that a high perception of airline service quality will increase the levels of customer satisfaction; this means that service quality is an antecedent to passenger satisfaction. The proposed model has three main hypotheses, these are:

H1. There is a significant relationship between reservation services and customer satisfaction.
H2. There is a significant relationship between scheduling services and the customer satisfaction.
H3. There is a significant relationship between check in services and the customer satisfaction.

Methodology
The study adopts the quantitative method to test pre-determined hypotheses and produce generalizable results.
In this study, the questionnaire survey was adopted to collect the wanted data, as the questionnaire is one of the most important data collection methods. The questionnaire was divided into two sections. In the first part, items on the questionnaires were developed by the researcher based on the literature review. The first section asked respondents to evaluate their overall experiences they received from their last international airline flight about Reservation, Scheduling and check-in, and customer satisfaction. The questions were phrased in the form of statements scored on a 5-point Likert type scale, ranking from 1 “strongly agree” to 5 “strongly disagree” for all the questions.
The second part contained questions regarding respondents’ socio demographic characteristics including age, gender, nationality, purpose of visit, education, frequency of flying, and the decision maker.

**Sampling**
The target sample was air passengers travelling via Egypt Air. The reason for selecting Egypt Air is due to the popularity and market share in Egypt. Using random sample, respondents from this airline set of population were approached and requested to fill in a non-disguised questionnaire prepared for this purpose.
The questionnaire was distributed in Cairo International Airport, different organizations, and online.

<table>
<thead>
<tr>
<th>Distributed questionnaire</th>
<th>Received questionnaire</th>
<th>Response rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>400</td>
<td>80</td>
</tr>
</tbody>
</table>

The questionnaire was distributed during the period from November 2015 to February 2016.
Sampling is done by interviewing randomly selected passengers, at different times of the day and by online questionnaire.
After the data collection, the data was entered into SPSS programme version 16 to be analysed and interpreted.

**Validity and reliability**

**Face validity**
The initial questionnaire was reviewed by four experts in the air industry to ensure the completeness, and wording of the questionnaire. Most of the feedback related to the order of the questions on the questionnaire form and adding additional important questions, which resulted in the design of a new form, which was revised again by the experts.
Then four non-specialized persons checked the questionnaire in order to ensure that the questionnaire is readable.

**Construct validity**
The questionnaire was piloted by 50 randomly selected passengers. Corrected item-total correlations were used to measure the constructs of the study and their indicators, which revealed values between 0.3 and 0.80 (Netemeyer, Bearden, & Sharma, 2003), showing that the retained indicators are valid for measuring the related construct.
Regarding the reservations services construct, two items had values below 0.3. These two items were excluded. These two items are:
- There is a reminder before the flight.
- You can bring your luggage one day before the flight.
Regarding the scheduling services construct, the four scheduling service indicators are within target values.

As for check-in services construct, one indicator had value below 0.3. It is: The front line employees show a friendly and helpful response.

Regarding the satisfaction level construct, the four satisfaction indicators are with values exceeding 0.3.

The final form included 22 items to measure 4 constructs: 6 items for reservation services, 4 items for scheduling services, 9 items for check-in services, and 4 items for customer satisfaction.

**Survey Reliability**

In this study, the (Cronbach's alpha) was used to assess the reliability of the data. This is due to the fact that Cronbach's alpha is a meaningful measure of internal consistency of a survey.

In determining acceptable reliability levels for Cronbach’s alpha, it is cited that 0.7 is acceptable (Field, 2009).

All the questionnaire indicators are higher than .7 which means good reliability.

**Results and discussions**

An analysis of the data can provide guidelines for participating airline in terms of strategies to improve their services and customer satisfaction as following:

**The Descriptive statistics of respondent characteristics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>67.8</td>
<td>272</td>
</tr>
<tr>
<td>Female</td>
<td>31.9</td>
<td>128</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-10</td>
<td>6.0</td>
<td>24</td>
</tr>
<tr>
<td>30-21</td>
<td>20.9</td>
<td>84</td>
</tr>
<tr>
<td>40-31</td>
<td>61.6</td>
<td>247</td>
</tr>
<tr>
<td>50-41</td>
<td>6.2</td>
<td>25</td>
</tr>
<tr>
<td>70-51</td>
<td>5.0</td>
<td>20</td>
</tr>
<tr>
<td>Selling channel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel agent</td>
<td>68.8</td>
<td>276</td>
</tr>
<tr>
<td>Airport ticket counter</td>
<td>10.0</td>
<td>40</td>
</tr>
<tr>
<td>Airline ticket</td>
<td>12.0</td>
<td>48</td>
</tr>
<tr>
<td>Online</td>
<td>9.0</td>
<td>36</td>
</tr>
<tr>
<td>Traveling frequency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>4.5</td>
<td>18</td>
</tr>
<tr>
<td>3-1</td>
<td>54.1</td>
<td>217</td>
</tr>
<tr>
<td>More than 3</td>
<td>41.1</td>
<td>165</td>
</tr>
<tr>
<td>Purpose of traveling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company business or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>professional practice</td>
<td>23.9</td>
<td>96</td>
</tr>
<tr>
<td>Government related business</td>
<td>4.5</td>
<td>18</td>
</tr>
<tr>
<td>Visit family or friends</td>
<td>17.7</td>
<td>71</td>
</tr>
</tbody>
</table>
### Table 3: Respondents’ opinions on Reservation services

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The airline offers different flight classes (e.g., first, business, economic classes)</td>
<td>23.4</td>
<td>46.6</td>
<td>17.2</td>
<td>9.2</td>
<td>3.2</td>
<td>2.2</td>
<td>1.0</td>
</tr>
<tr>
<td>There is available information on tickets' prices, schedules, allowed luggage weight and number of pieces</td>
<td>21.9</td>
<td>41.4</td>
<td>21.4</td>
<td>11.0</td>
<td>3.2</td>
<td>2.3</td>
<td>1.04</td>
</tr>
<tr>
<td>The airline employees show a friendly and helpful response to reservation calls.</td>
<td>12</td>
<td>51.1</td>
<td>13.7</td>
<td>20</td>
<td>3</td>
<td>2.5</td>
<td>1.04</td>
</tr>
<tr>
<td>The airline has other travel related partners, e.g. car rentals, hotels and travel insurance</td>
<td>4.5</td>
<td>34.4</td>
<td>40.9</td>
<td>13.7</td>
<td>6.2</td>
<td>2.8</td>
<td>0.9</td>
</tr>
<tr>
<td>There are a multiple distribution channels 'website, travel agent and airport offices&quot;</td>
<td>5.7</td>
<td>32.4</td>
<td>25.7</td>
<td>25.4</td>
<td>10.5</td>
<td>3.0</td>
<td>1.11</td>
</tr>
<tr>
<td>The airline shows good flexibility in changing reservations.</td>
<td>0.7</td>
<td>38.9</td>
<td>26.4</td>
<td>20.9</td>
<td>12.7</td>
<td>3.1</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Regarding reservation phase, we report the mean scores (1 being strongly agree and 5 being strongly disagree). After asking the respondents about their opinion on the reservation service quality indicators, we found that the indicator which ranked on the top is 'The airline offers different flight classes (e.g., first, business, economic classes)' with the mean 2.2 (indicating agreement) as 70% of respondents are agreed on Egypt Air offers different flight classes, while 12.4% are disagreed with that. While information availability on tickets such as prices, schedules, allowed luggage weight and number of pieces mean is 2.3 (indicating agreement), as 63.6% of
respondents are agreed on this, 21.4% are neutral and the remaining percentage are disagree with that.
On the other hand 63.1% of respondents agreed on Egypt Air employees show a friendly and helpful response to reservation calls, while 13.7 are neutral and the remaining percentage are disagreed. "The airline has other travel related partners, e.g. car rentals, hotels and travel insurance" got the mean 2.8 (indicating neutral) as 38.9% of respondents are agreed on Egypt Air has other travel related partners, while 19.9% are disagreed with that. 38.1% of respondents are agreed on Egypt Air has multiple distribution channels "website, travel agent and airport offices", 25.7 are neutral, and 35.9% are disagreed with the mean 3 (indicating disagreement), while as 33.6% are agreed on Egypt Air doesn't show good flexibility in changing reservations, 26.4 are neutral, and the remaining percentage are disagreed with that with the mean 3.1 (indicating disagreement).

Scheduling services

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The airline has non-stop service to various destinations.</td>
<td>8.2</td>
<td>61.3</td>
<td>21.4</td>
<td>8.0</td>
<td>2.3</td>
<td>0.8</td>
</tr>
<tr>
<td>The airline has global alliance partners in order to provide a wider network and smoother transfers</td>
<td>6.2</td>
<td>47.4</td>
<td>35.4</td>
<td>10.0</td>
<td>.7</td>
<td>2.5</td>
</tr>
<tr>
<td>The airline has convenient flight schedules and enough frequencies</td>
<td>1.5</td>
<td>52.1</td>
<td>29.9</td>
<td>13.0</td>
<td>3.2</td>
<td>2.6</td>
</tr>
<tr>
<td>The airline offers competitive ticket prices</td>
<td>24.4</td>
<td>23.7</td>
<td>30.2</td>
<td>21.4</td>
<td>3.5</td>
<td>1.08</td>
</tr>
</tbody>
</table>

Regarding scheduling services phase, we report the mean scores (1 being strongly agree and 5 being strongly disagree). After asking the respondents about their opinion on the scheduling service quality indicators, the non-stop service to various destinations in Egypt Air get 2.3 (indicating agreement) as 69.5% agreed with that, 21.4% are neutral and 8.7 are disagreed with that.
It was also found that 53.6% of respondents are agreed on Egypt Air has global alliance partners in order to provide a wider network and smoother transfers, compared to 10.7%, who are disagreed. While as 53.6% agreed on Egypt Air has convenient flight schedules and enough frequencies, 29.9% are neutral, and 16.2% are disagreed with the mean 2.6 (indicating Neutral). It was also found that 51.6% are disagreed on Egypt Air offers competitive
Regarding check-in phase, we report the mean scores (1 being strongly agree and 5 being strongly disagree). After asking the respondents about their opinion on the check in service quality indicators, we found that the indicator which ranked on the top is "Egypt Air frequent flier program offer desirable benefits " with the mean 2.8 (Indicating neutral) as 31.9% of respondents are agreed on Egypt Air frequent flier program offer desirable benefits, while 20.4% are disagreed with that, and 47.4% are neutral. Egypt Air has a sound loyalty programme to recognize them as a frequent customers has the mean 2.8 (Indicating neutral), as 23.7% of respondents are disagreed on this, 42.1% are neutral and the remaining percentage is agreed with that.

On the other hand, the simplicity to redeem benefits earned from this airline frequent flier program has the mean 2.9 (Indicating neutral) as 27.9% are agreed with that, 53.9% are neutral and 18% are disagreed on that. It was also found that 48.6% of respondents are agreed on Egypt Air check in process is easy, rapid and accurate, compared to 35.1%, who are disagreed. While as ticket prices, 23.7% are neutral, and 24.4% are agreed as the mean is 3.5 (Indicating disagreement).

### Check-in services

#### Table 5: Respondents’ opinions on check in services

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The airline frequent flier program offer desirable benefits.</td>
<td>4.5</td>
<td>27.4</td>
<td>47.4</td>
<td>19.7</td>
<td>.7</td>
<td>2.8</td>
<td>0.8</td>
</tr>
<tr>
<td>The airline has a sound loyalty programme to recognize you as a frequent customer.</td>
<td>6.7</td>
<td>27.2</td>
<td>42.1</td>
<td>22.2</td>
<td>1.5</td>
<td>2.8</td>
<td>0.9</td>
</tr>
<tr>
<td>It is easy to redeem benefits earned from this airline frequent flier program.</td>
<td>2.2</td>
<td>25.7</td>
<td>53.9</td>
<td>11.0</td>
<td>7.0</td>
<td>2.9</td>
<td>0.9</td>
</tr>
<tr>
<td>The check in process is easy, rapid and accurate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are disability services</td>
<td>4.2</td>
<td>33.2</td>
<td>26.4</td>
<td>25.4</td>
<td>10.5</td>
<td>3.0</td>
<td>1.1</td>
</tr>
<tr>
<td>The airline has efficient check-in and luggage handling services</td>
<td>3.0</td>
<td>38.9</td>
<td>22.7</td>
<td>26.4</td>
<td>8.7</td>
<td>3.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Being a member of the airline frequent flier program makes me feel special.</td>
<td>3.0</td>
<td>21.9</td>
<td>53.4</td>
<td>12.0</td>
<td>9.5</td>
<td>3.0</td>
<td>0.9</td>
</tr>
<tr>
<td>There is more than one check in counter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a clear policy in case of lost and missing luggage</td>
<td>2.2</td>
<td>26.4</td>
<td>16.7</td>
<td>23.9</td>
<td>30.4</td>
<td>3.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>
37.4% are agreed on Egypt Air has disability services, 26.4% are neutral, and 35.9% are disagreed with the mean 3 (Indicating Neutral).

41.9% of respondents are agreed on Egypt Air has efficient check-in and luggage handling services, 22.7% are neutral, and 35.1% are disagreed with the mean 3(Indicating neutral), while as 24.9% are agreed on Being a member of the airline frequent flyer program makes them feel special, 53.4% are neutral, and the remaining percentage is disagreed with that with the mean 3 (Indicating neutral). It was also found that 63.6% are disagreed on Egypt Air has more than one check in counter., 8% are neutral, and 28.2% are agreed with the mean 3(Indicating neutral). It was also found that 28.6% of respondents are agreed on Egypt Air has a clear policy in case of lost and missing luggage, compared to 54.3%, who are disagreed.

Customer satisfaction

In this section, there were four indicators to measure customer satisfaction towards the airline services as shown below:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My decision to fly with Egypt Air was a wise one.</td>
<td>17.0</td>
<td>40.6</td>
<td>22.7</td>
<td>14.2</td>
<td>5.2</td>
<td>2.5</td>
<td>1.1</td>
</tr>
<tr>
<td>I think I had a safe journey while travelling with the airline</td>
<td>26.9</td>
<td>33.9</td>
<td>32.7</td>
<td>6.2</td>
<td>3.2</td>
<td>3.2</td>
<td>0.9</td>
</tr>
<tr>
<td>The airline services exceeded my expectations.</td>
<td>5.7</td>
<td>22.4</td>
<td>26.9</td>
<td>32.2</td>
<td>12.5</td>
<td>3.2</td>
<td>1.1</td>
</tr>
<tr>
<td>The airline has a good reputation among passengers</td>
<td>20.7</td>
<td>20.9</td>
<td>47.9</td>
<td>10.2</td>
<td>3.5</td>
<td>3.5</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Regarding customer satisfaction, we report the mean scores (1 being strongly agree and 5 being strongly disagree). After asking the respondents about their opinion, we found that the customer decision to fly with Egypt Air was a wise one has the mean 2.5(Indicating neutral) as 47.6% of respondents are agreed, while 19.4% are disagreed on that. While the respondents who had a safe journey while travelling with Egypt Air, are 108 with a percentage 26.9%, and the others who hadn't are 156 with a percentage 38.9%, with the mean 3.2(indicating neutral).

On the other hand, 28.1% of respondents see that Egypt Air services exceeded their expectation, while as the 44.7% of respondents see that Egypt Air services did not exceed their expectation, with the mean 3.2 (indicating neutral). It was also found that, 20.7% of respondents see that the good reputation of Egypt air made them choose it, compared to 48.1% disagreed on this with the mean 3.5 (indicating disagreement)
Hypotheses-testing
For testing the proposed model, the regression analyses was performed by using SPSS version 16. It is between the service quality as the independent variable and, the customer satisfaction as the dependent variable.

Table 7: Service quality and customer satisfaction Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3</td>
<td>38.812</td>
<td>163.680</td>
<td>.000a</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>396</td>
<td>.237</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>399</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The previous table provides the R and R-square values. The R value represents the correlation coefficient between the travel cycle predictors and customer satisfaction (R= 0.744). It indicates a strong positive correlation between the travel cycle services and customer satisfaction. 55.4% of the customer satisfaction can be explained by the travel cycle services. This result reflects the strong influence of travel cycle services on customer satisfaction.

Table 8: Service quality and customer satisfaction ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.613</td>
<td>.145</td>
<td>4.230</td>
</tr>
<tr>
<td></td>
<td>RESMEAN</td>
<td>.687</td>
<td>.045</td>
<td>4.662</td>
</tr>
<tr>
<td></td>
<td>SCHMEAN</td>
<td>.089</td>
<td>.041</td>
<td>.079</td>
</tr>
<tr>
<td></td>
<td>CISMEAN</td>
<td>.097</td>
<td>.049</td>
<td>.081</td>
</tr>
</tbody>
</table>

With F value =163 and p<0.001, the regression model is significantly predicting the dependent variable.

Table 9: Service quality and customer satisfaction Coefficients

The Coefficients table provides the extent to which predictors are significantly affecting customer satisfaction. Using the "B values" it is found that:

- **Reservation**: The b coefficient for reservation is 0.631. Therefore, for every unit increase in reservation, a 0.631 of a unit increases in customer satisfaction.

- **Scheduling services**: The coefficient for Scheduling services is .089, for every unit increase in Scheduling services, a 0.089 of a unit increases in customer satisfaction.

69
- **Check in services**: The b coefficient is 0.079. In addition, p value is less than 0.01 and it is significantly affecting customer satisfaction. Therefore, for every unit increase in check in services, a 0.079 of a unit increases in customer satisfaction.

![Figure 2: the proposed model](image)

**Result discussions**

After testing the first hypothesis, which is "**There is a significant relationship between reservation services and customer satisfaction**", it indicates that the hypothesis is accepted. As the p value is less than .01, which means there is a significant relationship between reservation services and customer satisfaction and any increase of the quality of the reservation services will lead to more customer satisfaction.

For testing the second hypothesis, which is "**There is a significant relationship between scheduling services and the customer satisfaction.**" it indicates that the hypothesis is accepted. As the p value is less than .05, which means there is a significant relationship between scheduling services and customer satisfaction and any differences of the quality of the scheduling services will lead to difference in customer satisfaction.

For testing the third hypothesis, which is "**There is a significant relationship between check in services and the customer satisfaction**", it indicates that the hypothesis is accepted. As the p value is less than .01, which means there is a significant relationship between check in services and customer satisfaction and any differences of the quality of the check in services will lead to difference in customer satisfaction.

The study agreed with various studies as it shows that perceptions of service quality were significantly related to passenger satisfaction.
The study results indicate that satisfaction items can be explained by different quality dimensions. It was noticed that reservation, scheduling and Check in services have most importance in affecting customer satisfaction. Khateeb (1998) support these results.

In addition, Clemes, Gan, Kao, and Choong (2008) suggested that there is a presence of significant positive relationships between perceived service quality and the air travel service quality dimensions identified in the study: these dimensions include assurance, convenience, helpfulness, comfort, meals, and safety and security, while as the scheduling has non-significant relationship, which is agreed with this study.

The results do not support the findings of Adeola and Adebiyi (2007) and Naik, Gantasala, and Prabhakar (2010), who found that the operations and safety dimension were the least important. However, the findings of this study are consistent with recent study by Archana and Subha (2012).

The results do not support the findings of Bahraini, Akbar, Azad, and Izadi (2013) who found that staff uniforms and appearance was number one important factor followed by the cleaning crew, aircraft cabin cleaning and sanitary services and adaptability of food served with local culture, meanwhile these factors are number four in affecting the customer satisfaction in this study.

**Conclusion**

To develop a better understanding of the relationship between the quality of airline services and passenger satisfaction, an empirical investigation of Egypt Air passengers was conducted. This study was carried out using survey questionnaire, which was distributed to 500 passengers. From the original sample, 400 questionnaires were used, representing 80% response rate.

The major purpose of this study was to identify service quality before the flight and customer satisfaction levels in the airline industry and also to define most significant factors of the customer satisfaction.

It was found that higher perceived service quality in terms of meeting or exceeding customer expectations leads to customer satisfaction and there are many phases to understand the service quality from the passenger want to repurchase the airline service, therefore, the study assumed that the preflight service consists of three phases “Reservation, scheduling, and check-in”, and every phase consists of many indicators which effects on the airline service quality.

The reservation services such as different classes, information availability, helpful staff, and travel related partners are the most effective in the customer satisfaction, as it is considered the first impression the customer will take into account on the airline.
While as Check in services like (loyalty programs benefits, check in accuracy, rapid check in, disability service availability, good luggage handling, and clear policy of missing luggage) are very important in customer satisfaction as it is ranked in the second level which effects on the customer satisfaction and therefore the customer loyalty.

Meanwhile the scheduling services such as nonstop services, airline alliances, and price ticket have the last level and have not a significant effect on the customer satisfaction. This may be because those services are not important for almost passengers and a little people need it or there are a lot of alternatives in the market or the customer can be adopted without these services.

Accordingly, the study suggests that Egypt Air managers should develop strategies to improve service quality such as meeting passengers desired service levels, improving the quality of reservation, scheduling, and check-in services. These strategies will enhance airline image and result in retaining existing passengers and enticing passengers from other airlines. Employees should engage on training courses on a regular basis and should bear in mind that the behaviour of employees is often instrumental in bringing about desired outcome. Management of Egypt Air should provide an informative feedback on the employee's performance using differential rewards and punishment. Managers should study their target market precisely and recognise the customers demand and how they can be satisfied.

**References**


Udjoa, O., Lubbea, B., & Dougalasa, A. The search for and purchasing of an airline ticket.


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**الملخص العربي**

رضاء العملاء تجاه خدمات الحجز والجدولة والتسجيل لشركات الطيران

رغده محمد بدر الدين      سوزان بكري حسن      نانسي محمد فوزي
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من الأهمية أن يكون هناك رضاء للعملاة لجلب المزيد وعندها فقط سيكون من الممكن لشركات الطيران العمل والمنافسة بجانب تحقيق أرباح، وبالتالي نجد أن جودة خدمات الحجز والجدولة والتسجيل من الأشياء الهامة والتي تؤثر مباشرة على رضاء العملاء وبالتالي ولائهم، ولكن نجد أن شركات الطيران لا تاتخذ في اعتبارها احتياجات العملاء بمعنى آخر هناك فجوة بين كل من احتياجات العملاء والخدمات المقدمة مما يؤثر مباشرة في رضاهم.

وبالتالي ان الهدف الرئيسي من هذه الدراسة هو دراسة أبعاد خدمات شركات الطيران وتحديد أبعاد جودة خدمات الحجز والجدولة والتسجيل للركاب والتي لها تأثير على كل من رضاء العملاء وولاء العملاء، وتم توزيع 500 استمارة إستقصاء على عينة عشوائية من المسافرين وتم تحليل البيانات عن طريق برنامج SPSS 16 وأشارت نتائج الد ارسة إلى أنه يوجد تأثير معنوي لتلك الخدمات على رضا العملاء.

الكلمات الدالة: جودة الخدمات ، رضاء العملاء ، خدمات الحجز ، خدمات التسجيل