The Balanced Scorecard Approach as a Tool for Performance Evaluation in the Airline Companies

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Abstract
Nowadays, airline companies strive to achieve competitive advantage in the marketplace through the implementation of strategic performance measurement systems. The traditional measure of airline performance is the financial aspects, such as cash flow, return on capital, operating costs, profitability, return on investment, and revenues. However, such aspects have a limitation that they cannot realize intangible aspects. Therefore, professors Robert Kaplan and David Norton have developed a strategic management tool called the Balanced Scorecard model (BSC). The BSC is a tool that can help organizations translate their mission, vision and strategy into a complete set of performance measurements; it also forms the framework for strategic measurement and management, expecting that the Balanced Scorecard will support the traditional financial measures through providing other three business aspects to measure performance: Customers, internal business processes, and learning and growth. This paper aims at identifying the key performance indicators (KPI) in airline industry used for performance measurement. It also investigates BSC awareness and use within airline companies. In addition, the research aims to discuss how airline businesses can acquire benefits from implementing the BSC and shows how BSC has the potential to reach competitive advantage. In order to achieve these goals, a model is developed based on the BSC aspects. This model has been transformed into a questionnaire. The research sample includes mainly airlines' managers. Results have revealed that some airline companies already apply the BSC to measure their performance. Moreover, despite the fact that airlines' managers strongly support the potential usefulness of the BSC in their business, they still focus on traditional financial measures for measuring airline's performance. Furthermore, the results have showed that the financial attribute is considered the most important among the four given core attributes, followed by the customer perspective, while they pay little attention to both internal business processes perspective and learning and growth perspective. Nowadays, airline companies use new perspectives of flight operation and service quality which indicates that airlines start to take into account other indicators to assess performance.

Keywords: Balanced Scorecard; Performance measurement; KPI; Airlines; Financial and non-financial measures.

Introduction
Performance measurement is an important managerial activity for airlines to deliver competitive advantage. (Phillips, 1999) Performance measurement is the process of quantifying past actions to facilitate pursuing organizational control. (Neely, 2005; Phail et al. 2008) Traditional performance measurement systems, meanwhile, typically stress the short-term and past orientation while largely ignore the drivers of future performance. (Atkinson and Brown, 2001) Additionally, traditional operational metrics can depict profitability efficiently; however, they are unable to outline achievement of strategic objectives successfully. (Sainaghi et al., 2013)

Moreover, the traditional means of performance measurement are excessively profit based, unbalanced, unsatisfactory for businesses seeking a competitive advantage,(Phillips, 1999; Evans,2005) lack market orientation, (Phillips and Louvieris,2005) lack accuracy, (Brown and McDonnell,1995) and non-holistic; therefore, over-reliance on them is no longer
relevant for today’s managers. (Sainaghi et al., 2013; Kala, 2012) Measuring business success and implementing effective strategies for achieving success represent continuous challenges for managers. (Phail et al., 2008) Whilst financial measures are clearly important, new perspectives have emerged recently putting in consideration a broader range of measures. These perspectives aim to respond to the criticisms directed to financial measures. (Evans, 2005) Performance measurement frameworks now need to focus on an effective combination of financial and non-financial measurements to provide a reliable feedback for management control purposes and performance evaluation, and to achieve superior quality and better outcomes. (Sainaghi et al., 2013) The Balanced Scorecard model is one of a number of performance measurement and management tools used to execute an organization's strategy. The BSC implementation has achieved success and popularity in the business sector. (Phillips and Louvieris, 2005) The Balanced Scorecard is a value-adding system for management. (De Geuser et al., 2009) Also, when a BSC model is developed well, it can help managements to transform their organizations' missions and visions into objectives and performance measures, and evaluate their progress with regard to goals achievement. (Doran et al., 2002) The usage of the Balanced Scorecard by the airline industry is totally rare due to the lack of knowledge about such model. (Borza and Bordean, 2006; Michael, 2010).

Literature Review

Performance Measurement in Airline Companies

Performance measurement has become increasingly important due to the changing nature of work, increased competition, increased markets, changing organizational roles, the power of technology, and changing external demand. (Neely, 1999) Organizations need to establish clear goals, set strategic directions, develop criteria for performance measurement, evaluate that performance, and compare the performance against the goals of the organization. Moreover, measuring performance plays an important role in planning and decision-making; it also creates the link between strategy intent, competitive environment, revenue generation, service delivery process and strategic evaluation. (Kala, 2012).

Performance measurement is described by (Harbour, 1997) as "a process of assessing progress towards achieving pre-determined goals, including information on the efficiency by which resources are transformed into goods and services, the quality of those outputs and outcomes, and the effectiveness of organizational operations in terms of their specific contributions to organizational objectives". Performance measurement is also defined by (Neely et al., 1995) as "the systematic attempt to learn how responsive organization's products and services are to the needs of the customer and the organization's ability to improve effectiveness and efficiency in quantitative terms."

Furthermore, (Neely et al., 2002) considers performance measurement as "the process of quantifying the efficiency and effectiveness of past actions". While (Moulin, 2004) suggests that it is used for "evaluating how well organizations are managed and the value they deliver for customers and other stakeholders". Moreover, (Quintano, 2010) mentioned that "performance measurement is the process of measuring work accomplishments and output, as well as measuring in-process parameters that affect work output and accomplishments."

On the other hand, performance management is defined as "a formal process used to measure, evaluate, and influence job attitudes, behaviors, and performance results with employees". (Flagstad, 2013) Moreover, it is defined by (Armstrong and Baron, 2004) as “a process which contributes to the effective management of individuals and teams in order to achieve high levels of organizational performance”. However, performance
management has been traditionally defined as "the process of financial control, in which the mission and strategy are translated into budgets, and subsequently the results are compared with budgets". (Neely, 1999; Wadongo et al., 2010) Despite the fact that such measures have already been developed based on other dimensions rather than the financial one, airline companies still focus on using the narrow traditional performance measures because they are easier to quantify. (Wadongo et al., 2010).

With the help of performance measurement tools, organizations can monitor the implementation of their business plans and strategies, thereby contributing to their organizational success.(Gomes and Romão, 2014) Performance measurement systems play a number of important roles: (1) Help the organization assess whether it is receiving the expected contributions from employees and suppliers; (2) help the organization evaluate whether it is providing each stakeholder group what it needs to continue their support so the organization can achieve its primary objectives; (3) assist the organization in implementing processes that contribute to achieving the strategic objectives; and (4) help the organization assesses and monitor strategic planning in accordance with the agreements negotiated with key stakeholders.(Atkinson et al., 1997).

The key performance indicators (KPIs) are considered metrics for monitoring the qualitative or quantitative performance of strategic objectives, outcomes, or key result area (KRA). They are also absolutely critical to the success of an activity and growth of the organization overall. The purpose of KPIs is to provide decision makers in the organization with measurable indicators for measuring or judging the organizational performance and for measuring the achievement of organizational objectives. These Key Performance Indicators are represented in innovation, employee performance measures, external environment, operational performance, financial measures, service quality, customer satisfaction, organizational learning, critical success factors, and competitive environment. (Kala, 2012; Ivanković et al., 2010).

According to (Strategy 2 Act KPI and Scorecard library, 2016) the airline performance indicators include:

**Financial perspective**, it comprises of revenues, expenses, profits, fuel costs, the market value, and cash flow. (Demydyuk, 2011).

**Customer perspective** represents in types of meal offered, baggage handling to decide on which brand flight would they board, baggage rates, response time for queries, and canceled flights.

**Flight operations** include number of flights and passengers, available flying time, and aircraft utilization, punctuality, baggage performance, and aircraft cleanliness. (British Airways, 2007).

**Service indicator** measures passenger seats occupied, freight and mail, number of partners in supply-chain, and number of accidents. (Course hero Inc, 2011).

**Balanced Scorecard Definitions**
The BSC is being used as a measurement tool, performance management system, or strategic management and control system. (The KPI Institute, 2014)

The following definitions illustrate the Balanced Scorecard concept from different aspects:
The Balanced Scorecard keeps traditional financial measures. Financial measures reflect the old notion of the industrial age companies that did not consider the importance of investing in long-term capabilities, and enhancing good customer relationships for success. Such financial measures alone are not suitable for the information age companies that pursue creating future value through investing in customers, suppliers, employees, processes, and focusing on technology and innovation. (Kaplan and Norton, 1992)
The Balanced Scorecard is "a tool that translates an organization's mission and strategy into a comprehensive set of performance measures that provide the framework for a strategic measurement and management system". (Balanced Scorecard Collaborative, 2010).

The Balanced Scorecard is "a strategic planning and management system that is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals". (Balanced Scorecard Institute, 2010) The Balanced Scorecard has been defined in different ways. When it was first known in the early 90s, it was recognized as an approach for producing a performance report by collecting performance measures through a number of perspectives. The most commonly used perspectives are financial, customer, internal processes, and learning and growth. Gradually, the BSC has developed. It has become the basis for a performance management system that uses strategic, operational, and individual performance plans for communicating, supervising, and improving organizational performance. (Eab group, 2010) This concept of different perspectives characterizes the Scorecard. The Scorecard is also distinguished by the apparent relationship between corporate strategy and measures throughout the organization. Furthermore, by giving specific attention to the four perspectives, managers can express their core vision, strategy, and objectives before translating them into definite measures, goals, and initiatives. Thus, the Scorecard combines strategy and operations. (Hotel mule, 2010).

The Balanced Scorecard as a Performance Measurement System

The Balanced Scorecard (BSC) is "an instrument to create a framework for a strategic measurement and management system, translating an organization's mission and strategies into a number of comprehensive performance measurements." (Erbasi and Parlakkaya, 2012) It was developed by Kaplan and Norton in 1992 to process the limitations of the use of the traditional financial performance measurement systems. The financial measures that are generally used include the return on investment, the market share, and the earnings per share, as these measures produce results by relying on past performances. In the competitive environment of nowadays this kind of information may be misleading and insufficient, especially in areas relating to the development and the innovation of the organization. (Giannopoulos et al., 2013) In addition, such information fail to measure the impact on the overall organization. (Subramaniam, 2009) Furthermore, traditional performance measurements are criticized because they concentrate on one aspect only, and they do not consider long-term objectives, strategic focus, or continuous development. (Ivanković et al., 2010)

Although traditional financial performance measures offer an easy way of measuring the quantitative part of the performance of airline companies, they have a serious limitation that they cannot recognize intangible factors, such as customer/employee satisfaction, value-creation, customer equity, quality, and the brand image of the airline. (Erdoğan and Kaya, 2014) The non-financial indicators better reflect the investment and the performance of the more intangible aspects, which are so good at predicting the future financial performance. These intangibles can be a source of sustainable competitive advantage, and are the resources that the company owns. The fundamental factor to the success of any organization relies on the increasing role of intangible assets in creating value. (Niven, 2008; Wu and Liao, 2014; Behn and Riley, 1999).

Furthermore, (Gomes and Romão, 2014) point out the mistakes that organizations make when trying to measure a non-financial performance, including: "(1) Lack of alignment between measurements with strategy: A key challenge is to determine which non-financial
measures need to be implemented; (2) Validating the measurements: Do not validate the model, which leads to measure many things, and most of them are irrelevant; (3) Setting up the right goals and measures; and (4) Wrong measurements: Companies use metrics that have no statistical validity". According to (Atkinson et al., 1997) most organizations use formal performance measurement systems that are extensions of their financial reports. The traditional financial accounting measures can give misleading signals for continuous improvement and innovation in organizations, and they are generally non-aligned with the capabilities and skills required for today's organizations in the preparation of their future. The measurement systems have been recognized as crucial elements to improving business performance and organizations.

The BSC suggests a combination of financial performance measures, with due attention to customer requirements, business processes, and long-term sustainability. The BSC is reflected through the balance between the lagging indicators that represent the results of measurements, the past, and the leading indicators representative of the future trends that will affect the results later. Moreover, the BSC does not only translate strategy into operational terms; it also aligns organizations with strategy, drawing business units' and employees' attention towards their role in performing tasks. The BSC supplements traditional financial performance measures with three additional perspectives, the customer, internal process, and learning and growth, (Gomes and Romão, 2014) as shown in Figure 1.

The BSC re-dimensiones the relative importance of the financial dimension within the organization. It emphasizes that other dimensions (the customer, learning and growth, and internal process) are equally important. Hence, the four dimensions are perfectly balanced. (Quintano, 2010) Moreover, (Kaplan and Norton, 2004) have proposed that continuous improvement in each of the non-financial perspectives would be monitored to assess whether it is translated ultimately into financial performance. If intangible investments did not result in improved financial performance, managers would need to redraw the strategy map. (Bento et al., 2013)

The first step in management processes creation for the implementation of the strategy involves the construction of a consistent and reliable framework that represents the network of relationships that lead to the achievement of objectives and the implementation of strategy. This framework is known as the strategy map"(Gomes and Romão, 2014), which is a series of cause-and-effect linkages among objectives of the four Balanced Scorecard perspectives. (De Geuser, 2009; Kaplan and Norton, 2004; Bento et al., 2013) A strategy map for a BSC is "a causal map depicting relations between various performance measures and corporate objectives. Causal maps express the judgment that certain events or actions will lead to particular outcomes". (Niven, 2008; Banker et al., 2011; Chiung, 2006)
The main characteristic of The BSC is the presentation of a mixture of both financial and non-financial measures in order to establish a complete view regarding the organization’s performance, (Giannopoulos et al., 2013) as it mixes different measures: Financial and operational, and qualitative and quantitative (Phillips, 1999). It also links long-term strategic objectives with short-term actions. (Kaplan and Norton, 1996) Moreover, (Kala, 2012) points out that the BSC reflects the balance between short-term operational controls and long-term vision, strategy and objectives, lagging and leading indicators, and between external and internal performance perspectives. Organizations should highly consider the Key Performance Indicators (KPIs) of the four Balanced Scorecard measures when performing the strategic plan. (Denton and White, 2000) In order to ensure an easy review process of the organization’s performance, and allow managers to monitor their performance with regard to the defined objectives, a selection of the most significant KPIs of each of the four perspectives is done (The KPI Institute, 2014; Eab group, 2010) as follow:

1- Customer perspective (how the organization should appear to customers): It focuses on customer satisfaction, market share, and customer profitability. Customer measures refer to the degree of meeting the customer’s needs; and they include the price level, customers’ rankings, matching of deliveries with customers’ specification, promptness of service delivery, percentage of new customers, and percentage of customers kept. (McWhorter, 2001) Customers focus on three important aspects related to the product or service: Time, quality, and cost. Therefore, any company should consider these elements when setting their goals, and then turn these goals into particular measures to measure customer satisfaction. (DeGeuser, 2009; Giannopoulos et al., 2013)

2- Internal business perspective (what business processes the organization should excel at): It focuses on the design, delivery of the services, and the degree of excellence achieved. (Kala, 2012) Furthermore, this perspective measures the internal business
processes, core competencies, and technologies that would satisfy stakeholders and customers. (Caudle, 2008) The internal measures for the Balanced Scorecard should aim at quality and productivity. In addition, (Borza and Bordean, 2006) have mentioned that the indicators the manager can use to measure the internal performance of the business include: Employee turnover, revenue by segment, complaint responses, etc. While (De Geuser, 2009) have argued that an organization’s ability to innovate and improve is related directly to its value. Therefore, only through the ability to launch new products, create more value for customers, and improve operating efficiencies continually can the organization penetrate new markets and increase revenues and margins—in short, grow, and thereby increase the shareholder value. (Lipe and Salterio, 2000)

3- Learning and growth perspective (innovation and learning) (how the organization would sustain its ability to change and improve): It comes from three principle sources: People, systems, and organizational procedures. Learning and growth activities focus on translating strategies into action to enhance the ability of the organization, through its employees, to compete in the future, and to achieve its current and long-term goals. (Bowen, 2011) Learning and growth measures focus on factors that facilitate continuous improvement in the organization, such as employee satisfaction, employee suggestions, employee retention, employee productivity, computerization, and training and providing development sessions for employees. (Hotel mule, 2010) Finally, this perspective enables managers to build a complete strategy map by defining the employee capabilities and skills, technology, and corporate the climate needed to improve and support an effective strategy for the future. (Borza and Bordean, 2006)

4- Finally, the financial perspective (how the organization should appear to stakeholders): It is still the most common performance measurement tool. It focuses on the readily measurable economic consequences of actions already taken. (Caudle, 2008) Moreover, key goals and measures here generally involve [gross and/or net] profitability, return on capital employed, economic value added, sales growth, market position and share, cash flow, etc. (Atkinson and Brown, 2001) Importantly, it should also be noted that a causal relationship is overtly recognized between the four perspectives, with the training programs provided for improving employees’ skills, and an investment in information technology (learning and growth perspective) that leads to an improvement in delivering service (an internal process), which also leads to customer satisfaction and loyalty (customer perspective), and this, in turn, will increase revenue and profits (financial perspective). (Bento et al., 2013; Christesen, 2008; Cheangtawee et al., 2005) Table 1 lists examples of goals and measures that may appear in each of the four measurement perspectives.

<table>
<thead>
<tr>
<th>Goals (What do organizations have to do?)</th>
<th>Measures (How do organizations know if they are achieving their goals?)</th>
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<tbody>
<tr>
<td>Financial</td>
<td>- Achieve a higher return on investment</td>
</tr>
<tr>
<td></td>
<td>- Achieve significant revenue from new product launch</td>
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<tr>
<td></td>
<td>- Maximize profitability</td>
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<tr>
<td></td>
<td>- ROI, ROCE</td>
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<td></td>
<td>- Revenue growth</td>
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<td></td>
<td>- Unit costs</td>
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<tr>
<td></td>
<td>- Value added measures</td>
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<tr>
<td></td>
<td>- Cash flow</td>
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<td></td>
<td>- Seat Revenue</td>
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</table>
The purpose of the BSC is to introduce to managements a group of performance measures to assess performance, which offers an overall view of the business. Also, it is a system for communicating the strategy and the procedures essential to executing it. Furthermore, it creates a homogeneous strategic management process, and clarifies cause and effect relationships to stakeholders, value-shareholders, customers, and employees. Moreover, it provides a balance between current performance and long term competitive abilities, financially and non-financially. (Subramaniam, 2009) Additionally, the initial objectives of the Balanced Scorecard are the value creation, considering the intangible and intellectual capital as opposed to the traditional systems of financial performance, (Gomes and Romão, 2014) and improving internal and external communications. (Qin, 2013; Baierl and Steinhäuser, 2014)

The Importance of Implementing the BSC
The most important benefits of applying the Balanced Scorecard system include: Aligning the business actions and activities to the organization's vision and strategy; (Bento et al., 2013; Niven, 2003; Atkinson, 2006) introducing an overall idea about the business operations to managements; making business objectives and strategies clear at all levels of the organization; steadily evaluating and measuring initiatives against industry standards; (Atkinson et al., 1997) giving strategic feedback and learning; (De Geuser et al., 2009) reducing time consumed and improving processes which leads to achieving distinguished competitive advantage; facilitating making decisions; providing more adequate solutions; (Subramaniam, 2009) introducing positive changes to the organization;

| Customer | - Delight shareholders  
- Achieve cost reduction | - Dominate major markets  
- Delight targeted customers  
- Increase revenue through repeat purchases  
- Grow business in a selected target group  
- Create responsive supply  
- Market share  
- Customer satisfaction  
- Survey results  
- Customer retention over time  
- Customer acquisition from target group  
- On-time delivery |
| Internal Business Processes | - Continually challenge competitor products in the market place  
- Compete on product reliability  
- Design productivity  
- Compete on product delivery channel mix  
- Time to market for next generation of products  
- Production defect rates  
- Efficiency  
- Volumes of transactions conducted through each of delivery channels |
| Learning & Growth | - Develop a skilled workforce  
- Value staff  
- Create organizational alignment  
- Provide internal information  
- Number of training hours completed per head  
- Employee retention  
- Peer evaluation measures within/between teams  
- Information availability  
- Employee satisfaction  
- Turnover rates |

Source: (Kaplan and Norton, 1996; Mackay, 2004)
supporting creativity; (Niven, 2008) and encouraging sustained improvement. (Al-Tawail Management Consulting & Training, 2009)

**The Balanced Scorecard in the airline Industry**

One framework that provides a compatible approach to successfully manage the business performance in the airline industry is the Balanced Scorecard. This can be proved by the successful experience with the Balanced Scorecard implementation by Singapore Airlines, Asian Airlines, Lufthansa, Turkish Airlines, British Airways, Delta Airlines, Philippines Airlines, and Southwest Airlines. The four BSC measures in airline industry according to (Yashodha, 2012; Porporato et al., 2008; Subramaniam, 2009), are as follows:

**a. The customer dimension:** Measures the market share, repeat business, and customer satisfaction and retention, customer profitability, customer ranking, rating of service/value-for-money, customer complaint rates, the number of new customers, on time arrival rating (Morgan, 2016), and the effectiveness of customer loyalty programs (Erdogan and Kaya, 2014; Arveson, 2009; Philippines Airlines, 2013)

**b. The internal process dimension:** Refers to reservations efficiency, occupancy rate, technology adoption ratio, check-in service efficiency, quality of onboard catering, (WONG, 1999) ground services, passenger services, network planning, schedule planning and maintenance.

**c. The learning and growth dimension:** Refers to providing training and development programs; performance appraisals; controlling staff turnover; employee satisfaction, Employee productivity, and environmental indicators. (Steven, 2013; Jackson, 2015; Morgan, 2016; Erdogan and Kaya, 2014)

**d. The financial dimension:** Refers to revenue growth rate, cost per available seat, profitability, line growth, return on capital employed, return on assets, return on investment, load factors, cash flow, income / expenditure ratio, and cost reduction. (Demydyuk, 2011; Lin et al., 2011; Morgan, 2016)

**Criticism of the Balanced Scorecard**

Most of the criticisms of the Balanced Scorecard model can be summarized into the following:

**Filtering:** The most common criticism of the Balanced Scorecard is termed filtering, or choosing specific measures to report. According to (Kennerly and Neely, 2000), the idea of limiting the number of measures in a perspective reduces the value of lead indicators. (Christesen, 2008)

**Causality (cause-effect):** Another criticism of the Balanced Scorecard surrounds the claim of causality among the perspectives, that the causality links among the four perspectives are ambiguous and weak at best. (Kanji, 2002)

**Clustering:** Another criticism of the Balanced Scorecard is clustering or grouping all measures into four perspectives. (Kennerly and Neely, 2000) Although (Kaplan and Norton, 1996) have addressed this issue by saying that some organizations may need more than four perspectives, or the perspective names may need to be modified to meet the needs of the organization or industry, this issue still arises.
Other criticisms include that the BSC does not incorporate environmental, community, or social aspects, which are a growing concern for stakeholders and can negatively impact an organization if not properly assessed. In addition, it does not incorporate competition or technological development, making it static in a global environment where competition and technology are continually changing. (Giannopoulos et al., 2013; Kenneth, 2010) Also, some argue that any type of planning is futile because organizations are too mechanical and resistant to change because organizational culture prohibits it, and there is a separation of planners and operators. (Kaskey, 2008) As well, critics of the BSC hold that the system is not useful in large organizations as a corporate management system. (Christesen, 2008; Tucker, 2006) Additionally, it is considered to be hard for an organization to implement performance measures for new actions. (Giannopoulos et al., 2013) Furthermore, the BSC does not include some intangible factors, such as the company’s image, competencies, culture, external stakeholders, and employee morale. Moreover, it is hard to standardize performance scores of an organization. (Flagstad, 2013; Kim and Lee, 2007)

Methodology
The sample chosen in this study includes airlines' managers to be more knowledgeable and to have a basic acquaintance with the topic of research in order to obtain meaningful data. Furthermore, the target population of the study is composed of 87 airlines' managers including: Regional managers, General managers and Department managers; it has been randomly selected from the following airlines companies: Egypt air, Singapore Airlines, Lufthansa, Turkish Airlines, British Airways, Jordanian Airlines, Philippines Airlines, Ethiopian Airlines and Saudi Arabian Airlines.

A total of 120 questionnaires have been distributed and 105 are collected (for a response rate of 88%). Only 87 are valid after the elimination of the incomplete ones. The questionnaire is composed of two sections: The first section is designed to elicit demographic data of the respondents. The second section of the questionnaire aims to investigate BSC awareness and use within airlines, clarify the KPI in airline industry, identify the attitude of airlines’ managers toward the BSC, and rate the importance of each item of the four perspectives in the BSC when evaluating an airline’s performance.

The questionnaire has been structured that each BSC attribute and other new perspectives are rated using a 5-point Likert scale, ranging from 1 (least important) to 5 (most important), in the attributes’ part. A list has been generated from the review of literature. These factors are: Customer perspective, financial perspective, internal business perspective, learning and growth perspective, flight operations, service indicator, and environmental and social responsibility. Through the above process, 50 initial items have been generated in attempting to cover the BSC attributes and other certain measures. This has included 9 items supporting financial perspective, 10 items for customer perspective, 8 items regarding internal business, 8 items measuring learning and growth perspective, 6 items regarding flight operations, 4 items measuring service indicator, and 5 items for environmental and social responsibility; they have been chosen based on previous studies as well as interviews with airline industry professionals and experts.

Results
The first section provides background information on the respondents of the questionnaire. Demographic profiles of respondents show that in terms of age, approximately 84% of the respondents are between 41 and 50 years old. A majority of respondents falls into the category of 11-20 years of airline work experience.
Table 2: The importance of each aspect of the performance measures

<table>
<thead>
<tr>
<th>Performance measures</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
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<tbody>
<tr>
<td>financial measures</td>
<td>4.67</td>
<td>0.34</td>
</tr>
<tr>
<td>Non financial measures</td>
<td>2.95</td>
<td>0.73</td>
</tr>
</tbody>
</table>

The results in Table 2 indicate that despite the competitive environment of nowadays, airlines' managers still focus on traditional financial measures for measuring airline performance with the mean of (4.67) than the non-financial measures with the mean of (2.95). However, it is worth mentioning that the traditional financial measures may be misleading and insufficient, especially in areas related to the development and innovation of the airline company.

Table 3: Awareness of the term Balanced Scorecard

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<thead>
<tr>
<th></th>
<th>Frequencies</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Yes</td>
<td>41</td>
<td>47.1</td>
</tr>
<tr>
<td>No</td>
<td>46</td>
<td>52.9</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100</td>
</tr>
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</table>

Table 3 indicates that only 41 of the respondents (47.1%) mentioned that they are familiar with the term balanced scorecard in the airline industry and aware of it. They confirmed that it is very important because it improves processes which lead to achieving distinguished competitive advantage and facilitates making decisions. On the other hand, 46 of the respondents (52.9%) explained that they are not aware of the balanced scorecard because they do not have a proper knowledge about it. Moreover, the results clarified that the awareness of the balanced scorecard is not being fully transferred into the application of it in airlines companies; and applying it depends on the company and its management.

Table 4: How the respondents learn about the Balanced Scorecard

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<thead>
<tr>
<th></th>
<th>Frequencies</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>From your experience at airline management</td>
<td>7</td>
<td>17.1</td>
</tr>
<tr>
<td>From other staff members with previous experience and knowledge about the BSC</td>
<td>17</td>
<td>41.5</td>
</tr>
<tr>
<td>Through attending seminars and training sessions about BSC</td>
<td>11</td>
<td>26.8</td>
</tr>
<tr>
<td>From professional journals</td>
<td>6</td>
<td>14.6</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100</td>
</tr>
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</table>

Table 4 shows that 41.5% of the respondents assure learning about the balanced scorecard from other staff members and managers with previous experience and knowledge about it. While 26.8% has known about the balanced scorecard through attending seminars and training sessions about the BSC. On the other hand, only 17.1% has learnt about the balanced scorecard from their work experience at airline management and 14.6% has known it from professional journals.

Table 5: How long has the airline used the Balanced Scorecard?

<table>
<thead>
<tr>
<th></th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 year</td>
<td>23</td>
<td>56.1</td>
</tr>
<tr>
<td>2-5 years</td>
<td>12</td>
<td>29.3</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>6</td>
<td>14.6</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100</td>
</tr>
</tbody>
</table>
As shown in Table 5, more than half of the respondents (56.1%) have used the Balanced Scorecard for less than two years in their companies, while the percentage of (29.3 %) of the respondents has clarified their use of the BSC from 2 to 5 years. In addition, the percentage of (14.6 %) has been using the BSC for more than 5 years. Therefore, this indicates that the BSC is a new approach that has been recently applied in airline industry.

Table 6: The key performance indicators (KPIs) in airlines to evaluate performance

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Perspective</td>
<td>4.71</td>
<td>0.27</td>
<td>1</td>
</tr>
<tr>
<td>Customer Perspective</td>
<td>4.46</td>
<td>0.35</td>
<td>2</td>
</tr>
<tr>
<td>Internal Business</td>
<td>1.88</td>
<td>1.51</td>
<td>5</td>
</tr>
<tr>
<td>Learning and Growth Perspective</td>
<td>1.61</td>
<td>1.77</td>
<td>6</td>
</tr>
<tr>
<td>Flight Operations</td>
<td>2.26</td>
<td>0.97</td>
<td>3</td>
</tr>
<tr>
<td>Service Indicator</td>
<td>2.05</td>
<td>0.93</td>
<td>4</td>
</tr>
<tr>
<td>Environmental and social responsibility</td>
<td>1.28</td>
<td>1.90</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 6 shows the key performance indicators (KPIs) the airlines use to evaluate their performance. The respondents have mentioned that the most used dimensions for performance measurement in their companies are the financial and customer perspectives. It is noticeable that the financial perspective is considered the most important goals for airline management. It is the strongest among other drivers when evaluating airline’s performance with the highest mean (4.71). The customer perspective is the second indicator with the mean (4.46) which confirms that airline companies have started to pay more attention to the customer. It is a leading indicator for long-term financial profitability. In addition, certain new perspectives are emerged to evaluate airlines performance as flight operations and service indicator, flight operations comes at the third rank with the mean (2.26), followed by service indicator with the mean (2.05). On the other hand, internal business comes at the fifth rank with the mean (1.88), followed by learning and growth perspective with the mean (1.61). The results reveals that while non-financial performance is proven to be effective in achieving financial objectives, the airline companies still pay little attention to both internal business and learning and growth dimensions. Finally, the Environmental and social responsibility achieved the lowest mean (1.28).

Furthermore, the study shows that top managements pay attention to financial goals, while heads of departments tend to be more focused on non-financial because they are faced with non-financial issues: customers’ complaints, fluctuations of staff and quality of services on a daily basis; and they appreciate that the importance of intangible assets is higher than that of the traditional assets.

Table 7: Attitude of airlines’ managers toward the BSC

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- BSC is an effective performance measurement system</td>
<td>4.67</td>
<td>0.33</td>
</tr>
<tr>
<td>2- BSC is a performance measurement tool relevant for airlines</td>
<td>4.69</td>
<td>0.29</td>
</tr>
<tr>
<td>3- Applying the BSC can achieve the goals of the</td>
<td>4.53</td>
<td>0.44</td>
</tr>
</tbody>
</table>
To understand the managers' attitude toward the importance of implementing the balanced scorecard (BSC), the respondents have been asked to rate their level of agreement with a number of BSC attributes' statements listed in Table 7. As shown above, the agreement level of respondents with all statements is positive with mean (4.415) and standard deviation (0.536), which means that most managers' attitude is toward the scale of agree and strongly agree. This, in turn, leads to that managers have a positive attitude toward BSC.

### Conclusion

The world witnesses a dynamic era where airline companies work and compete. Therefore, it becomes necessary to add more value to the business through initiatives leading to changes in the way of operating, changes in processes, and enhance required skills. These initiatives should be strategic to match the airline's objectives. In order to achieve better outcomes, it is necessary to pursue continues development by applying the airline's strategy measurement systems. The airline sector has realized the importance of performance measurement tools, and many airline companies deploy them. However, due to the recent advances in performance measurement, airlines' managers have looked for a new effective measurement system to evaluate airlines' performance. Since previous performance measures have focused on financial factors, they do not include other important non-financial areas that need to be addressed. Airline business finds that it is hard to measure actual performance when it only counts financial aspects due to the uniqueness of airline services. The BSC model prevents some of the problems associated with traditional performance measures. It assures the importance of balancing among the four areas: financial, customer, internal business process, and learning and growth perspectives. Furthermore, the BSC integrates the organization's strategic objectives across
these four perspectives. Moreover, the study aims at identifying the effects of the implementation of the Balanced Scorecard on the airline businesses that tends to achieve better performance and competitive advantage. The study revealed that although BSC has been widely-adopted and used in the business sector, the airline industry has not broadly embraced the concept. Also, BSC do not come close to addressing the needs of the airline industry. Moreover, airline companies use new perspectives of flight operation and services besides financial and customer perspectives.
The study recommends that it is necessary to deploy the concept of the Balanced Scorecard through scientific conferences, seminars, and training courses. Moreover, airline companies need to put in consideration the importance of the intangible assets for adding value in measuring performance. Also, special attention must be given to the learning and growth, and internal perspectives. Furthermore, top management need to support the implementation of the balanced performance measurement.

References


