

Role and Effectiveness of Five-Performance Indicators (Price, Dependability, Speed, Quality & Flexibility) in Attaining Competitive Edge in the Aviation Industry

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Abstract

The present research investigation aims to evaluate the significance and effectiveness of key five performance indicators (Price, dependability, speed, quality & flexibility) for gaining the competitive advantage in the aviation industry. This is to evaluate and examine the operations management activities undertaken by selected case study and how these indicators facilitate the organization in achieving its goal. In this research the case study of British Airways is taken so that the operation management activities are scrutinize and check the relationship between the competitive advantage and the operation management activities that are currently held inside the organisation. The importance of competitive advantage, operation management and the role of five performance indicators are discussed in detail. The previous empirical research and literature review is included to provide the insight about the topic and research query. The research investigates the preferences of management, the market condition, the comments, opinions and experiences from our respondents. The main aspect is to find out that is there exist a strong relationship or not between the operation activities and the competitive advantage therefore two hypotheses are considered, null and alternative hypothesis respectively. Each hypothesis has been validated by questionnaire response submitted by the respondents of British Airways. "Interpretive philosophy" is considered for the present investigation to design "descriptive" approach. The study by nature is cross sectional with the sample size of 165 participants, including employees working at Heathrow, St. James's London - Piccadilly, and headquarter of British Airways respectively along with the random consumers in order to establish the correlation between selected variables of the research study. The sample size is above 30 employees therefore interpretation and analysis of the research findings is done through Z-test. Recommendation for the future improvement is given after conclusion, based on the results generated through statistical tool.

Keywords: five-performance indicators, aviation industry, price, quality, dependability, flexibility, speed.

JEL Classification L29, L81, M30, M31, M37, M39

1. Introduction

The long-term profitability is a result of high market share by a firm driven from having strong competitive advantage over rivals, either due to value it creates for the consumers via higher or lower prices, or the benefits that urges the consumers to hold to it. According to Mintzberg, (2003), whether in the existing or the future market, the ability of a firm to compete with the other firms in the dynamics heavily depends on the consumer's demands, suppliers, and substitution effects. Therefore, it is essential for the organisations it is vital to stick to the strategies, plans, products and services, and patterns that will keep the consumers attracted and leads it to be cost effective and leadership effective to gain competitive edge in the market. As per Porter, (1998), in long term, firms can gain competitive advantage and be more cost effective, by having the tendency to lower the price rate as much possible that it does not affect the performances and does not take the company into state of deficit. In aviation industry, airlines usually lower down the fares to compete in the price war among competitors.

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As per Stewart, (2011), in the aviation industry, high benefits need to be enjoyed by the airport transport company in comparison to the actual airline company. For this, low fare is one of the common stunts that is visible in the Europe. There are number of competitors in the European aviation market and high price war exist among them. At the same time, it is essential for the company to maintain its high performance to sustain its position in the cutthroat competition. Moreover, Porter (1980), five performance indicators are essential components that enable the firms to avail that extra X factor (competitive edge) in the operating dynamics. Customers usually undertake the 'value' as a criterion to measure the services offered by the firms, as services are intangible one by nature. In the presently existing as well in the future market expansions, every business wants to prosper and have a market lead by creating the excellence in terms of values to attract the customers by adding value to the product or services that is being offered. For these reasons, strategies are developed so that it facilitates the companies in sustaining positions as well gaining competitive advantage over rivals to large extent. Moreover, it is evident that these strategies are usually short term in the service market due to dynamic and rapidly changing business environment.

Core competencies are essential for the firms to have as it helps the organisation to outclass its rivals in the competition and enable firms to enjoy profits in a long term. These core competencies are result of strategies. As per Mintzberg (2003) "The organisations grow due to various elements such as, tactics of a firm to compete in the dynamics, directions from buyers, suppliers, and substitution. So, in terms of cost effectiveness and leadership, the firm must possess an ability to produce goods or services to clients with a perspective to gain competitive advantage and increase its market share due o it. Furthermore, Porter (1998) strongly emphasise of the notion that every organisation seeks patterns to be market leader and cost effectiveness is a one specific element it is looking and focusing on. Considering aviation industry, Stewart (2011) pointed to an interesting point that more profit is being generated and enjoyed by airport transport than actual companies. On the basis of that, it can be said that main perspective in the aviation industry by all existing companies is just to compete and win market share by means of price factor as more than profit, it focusses on being cost effective and leadership. Nigel et al, (2004) strongly suggest that it is not just the price as a factor, but flexibility, dependability, speed, and quality are also essential elements that enable the firms to compete as well retain their respective positions in the operating dynamics.

British Airways is a case study selected to elaborate the five distinguish and essential performance indicators to measure the performance as well its role in gaining competitive advantage in the market, as British Airways is considered as quality-oriented airlines. Nigel, et al., (2004) research work revealed that organisation's stake holders have been affected by the performance of the operations management as well operational strategies. Employees, shareholders, customers, society, and suppliers are some of these stakeholders that are pointed by the study of Nigel et al, in 2004.

•**Customer:** For every business these are important, as it is the reason for whom firms produce goods or services.

•**Employees:** These are internal customers that are essential for the firms as through them, products or services are conceived and delivered to the external customers. The external customers are satisfied through the internal ones.

•**Shareholder:** The inventory, stock, and productions as well selling and buying are heavily depended on the shareholders, the main beneficiary.

•**Suppliers:** The raw material that serves in the process of production is availed from suppliers.

•**Society:** The company exists in the society, it is part of society as all the groups in shape of

suppliers, buyers, etc are part of it and main source of firm's revenue and existence.

The firms are being influenced by these different stakeholders and at the same time these all stakeholders are also affected by the working, performance, and existence of the organisation. In other words, the activities and strategies associated with the operations management has direct or indirect impact on these shareholders, to some extent. Thus, stress could also be a factor. Stress is commonly witnessed in the workplace due to environmental factors and human interaction and can result in health complications, high turnover, and more (Haque, 2022).

A rational and properly thought-out decisions must be undertaken by the firms that is driven from the operations management's five performance indicators so that the organisation is able to produce in progressive manner as well able to resist the competition. In long run, the customers can be attracted the profit margin as well can be maintained to substantial level when a firm is able to use the five performance indicators to design and deliver the products or services to its potential targeted audience. Through cost, quality, dependability, flexibility, and speed are performance objectives that helps the firm to deliver as well satisfy the consumers, to retain the competitive advantage in the market.

The current research investigation primarily keeps a steady focus on the performance objectives to view what each and individual component of it puts an effort in enabling the company to retain position as well maintain competitive edge over others in the aviation industry.

As per the detailed research of Nigel, et al., (2004), the imperative objectives of these five performance indicators are as following:

1. **Quality:** An error-free goods or services produced by the firm that has ability to satisfy the consumers and is driven at the right time.
2. **Speed:** The element of prompt approach from the firm in delivering the goods or services to the customers that are requiring it in timely manner.
3. **Dependability:** A factor of assurance, that the goods or services is highly reliable and result of assured procedure and delivered on promise time.
4. **Flexibility:** The ability in firm's operation to be as elastic as the need of an hour. With changing circumstances, the goods or services are as flexible as required by the consumers.
5. **Cost:** The worth in which the goods or services are measured as the combination of resources, time, energy, and other variables that is undertaken by firm to produce goods or services.

The cost is not on which entirely the operational activities and strategies heavily rely on, as the value it produces for the consumers is more important consideration in the business strategies.

For the new entrants in the aviation industry, this research piece serves important knowledge and information related to the current strategies and operational activities driven to satisfy the consumers while keeping the changing trends and shifts in mind. The research scope also include manners and tactics that are used by the industries in the travel and tourism to sustain its position in the market. The study have key objective of evaluating the competitive advantage gained by the firms through designing and operation operations management activities and strategies in effective way. The study is cross sectional so it will be beneficial for the chosen case study to develop the right frame for gaining competitive advantage by exploring the opportunities as well threats in the external domain. Since the research is basic by nature so it can serve as a strong management literature for the future researchers to enhance their present knowledge about the trends and the role of performance indicators in attaining competitive advantage in the European airline industry.

The aim of this investigation is to explore in more depth by "evaluating critically the functioning of the five performance objectives by keeping the internal and external environmental factors

consideration, in the attainment of the competitive advantage in the aviation sector".

2. Literature Review:

2.1. Five-Performance Objective's Basic Identification:

Lewis, (2011) strongly suggest that the main motive of the five performance objectives is to ensure that the operations management is done properly, enabling the firm to develop comprehensive knowledge about the customer's need, market trends, and demand shifts so that edge in the dynamics can be accomplished. On the other hand, Pycraft, (2000) argue that channelizing and creating means to sustain long term position, these performance objectives are more crucial. Therefore, it can be stated that these performance objectives serve a foundation for the ideas as well certain benefits about learning the various aspects of the marketing environment. Considering this, it can also be said that performing promptly (speed), doing it effectively and cheaply (cost), doing it with more elastic approach (flexibility), doing it with consistency (dependability), and doing it with high standards (quality) are five objectives that make organisation as a strong contender for attaining the competitive advantage.

(a) Quality

To maintain certain standards in the market while ensuring there is reduction in the production process cost along with provision of the services for the consumers, are usually depended on the "quality". Johnston, (2003) consider quality as working or producing without error or defects in the production and deliverance of the goods and services with ultimate notion of consumer satisfaction as well maintaining the operations easy.

- **Quality inside the operation**

Pycraft (2000), strongly emphasis on the reduction of cost is due to the quality element in the productions and operations. This means that the less mistake a firm makes while producing goods and services, will make it more cost effective as the resources, time, and money will not be wasted and at the same time the quality standards will also improve more and more for the firm. Another benefit of the quality is that the good quality is more acceptable and demanded by the consumers, as the less wastage of resource will enable the firm to place the goods or services in the market promptly. Considering the aviation industry, services are offered to the consumers, the quality assurance will create strong brand image for the airline, enabling the firm to have a benefit from the quality objective. The current investigation is about British Airways, therefore, the quality in services has earn them customer loyalty as it stands a brand image with offering the loyalty and club cards to the business executive class and frequent travellers. The quality has played an important role as the British Airways earned good deal of merging with Iberia (Brown, 2010).

(b) Speed

Pycraft, (2000), proposed the rate at which consumers attain the product or services is considered as a speed. The firms benefit by it as it earns the potential to reduce its stocks as well promptly delivering the product or services to the targeted audience. The speed also facilitates the company to be efficient in dealing with the consumers and not holding them for wait, increases the value of the firm.

- **Speed inside the operation**

Johnston, (2003) emphasised that speed is vital objective to ensure that the operations are effective as well efficient for the organisation because more customers are being responded in the fast-track manner will develop a psyche among the consumers that their queries are being quickly resolved and they are being entertained on early basis. Furthermore, the operations management gains an advantage from it to make the decision-making process quick by delivering the products and

services make the management for effective and cost efficient. The risk related to shortage of demand is being pulled down by the proper speed deliverance.

British Airways firmly view that promptness in the operations in the minimum time will further increase the profitability as needs and demands fulfilment in the short time increase satisfaction (BA Annual Report, 2012). With high number of flights running to the European coast in a short period increase the probability of increase in the revenue. For its promptness in services has improved its sky ratings in the recent times (Travel and Tourism, 2011).

(c) Dependability

Lewis, (2011) strongly emphasised on the importance of dependability as it reflects the performance of operations being carried out with accuracy to meet the needs of the consumers. The consumers if feel that the product and services are satisfactory, they just not only rely heavily of the company but also spread positive words about the business. Objectives in the operations management is to deliver the performances that are time saving, less energy consuming, money saving, and stable enough to make customer feel they can heavily depend on the firm's abilities.

- **Dependability inside the operation**

Slack, Chambers, and Johnston, (2004) view dependability is measured in terms when employees in actual receives the product or services from the organisation in time. The ability of firm to assure the consumers will have the certain product or services in time reflects the ability of satisfying the consumers need and developing the reliance factor. Largely, in micro domain, the operations of the firm are being evaluated by the consumers through dependability factor. More consumers are content when there is in time provision of the goods and services. One of the key focuses of dependability is that without making errors at all, it saves time of the consumer by satisfying their demands and needs in a due time. The satisfaction of the consumers tends to increase when the products and services are being delivered to them in time as it develops the psyche of the consumers that they can rely on and depend of the operations of the firm (Lewis, 2011). For instance, the flights of the British Airways are less being cancelled or postponed in terms of operations, not in terms of the weather. This increases the dependability factor more in passengers that they can rely on the services.

Flexibility objective

Flexibility is regarded as widening the range of the operations and make it more elastic as per requirement, need, and demand of different consumers. Johnston et al., (2010) defines flexibility as required changes brought in the operations as a result of demand or need of the consumers. At times the firm requires to process differently for the different types of the consumers, therefore it becomes important for the firms to be more flexible in terms of its operations. We also noticed in the above literature that it is essential for the firm to have adaption to compete in dynamics, this is here flexibility in the operations can bring adaption and lead the firm towards excellence. A high variety in the product or services are regarded as organisation's ability to product in a flexible manner. High variety is also indicating that firm is producing the high volume which is showing the possibility of firm reducing its overall cost by producing in bulk volume with large variety. It gives the organisation ability to produce high volume of product that means high variety. This also reflect that in less time more production is possible which is linking the flexibility with the dependability. As per views of Pycraft (2000) high number of audiences can be targeted by the market, when it is working with the principle of flexibility. This means that different set of audience requiring different types of product o services can be entertained at one time.

- **Flexibility inside the operation**

Johnston, (2003) proposed that the willingness of producing more and more tends to be the result

of flexibility. One of the major internal advantages for the organisations gain due to flexibility in the operations management is that they become able to produce quality-oriented products and services in the varying circumstances. Considering the case study of British Airways, it is evident that BA has a high flexibility in their operations as the seats as well flight timing for the passengers is easily adjusted, indicating that the operations are highly flexible. BA demonstrate that it is the airline which offer high flexibility for the passenger to travel with high comfort factor (BA Annual Report, 2012). In short haul flights, it is noticed that British Airways have shifted as well adjusted the passengers on last minutes, showing the flexibility in the operations.

Cost objective

Slack et al., (2004) strongly suggest that being cost effective is the key motive of every profitable organisation. The ability and tendency to save the cost for a company is the internal approach of the firm's management as it facilitate the firm to meet its financial objective in a desired manner. As the cost for the operations reduces, there is more flexibility, speed, and quality in the operations (Slack et al, 2004) but on the other hand, Lewis (2011) oppose that the quality will not always be as effective by reducing the cost as other factors. Cost reflects the overall operations currently operating inside the organisation, such as the outflow of the production is measured with the input given to produce. As the cost reduces, there is more chances of being flexible in the operational strategies. On the other hand, Johnston (2003) suggest that operational output gains certain advantage due to the ability of the firm to maintain its cost under control in the long run. Cost under control even convey the notion that the wastage of the resources during the production is minimum and the inventory and stock is produced to the right level to meet the demands of the market. Dependability and flexibility, both turns out to be effective when the cost is efficiently managed by the firm.

Online booking is a new approach that is being considered by the British Airways to cut down its cost. Another important step is that the outsourcing of the ticketing to the I.T specialist in the India demonstrate that the cheap labour will automatically reduce the cost for the company. The passengers only need to have the provide the passport details and the ticket is ready in less than five minutes, which not only reflect the time saved but also the satisfaction of the consumer to have prompt services and saving the energy and time of the passenger are part of cost cutting for the operations management of the British Airways.

To evaluate the effectiveness in the operations of the BA in both macro and micro domain, the standard four Vs are considered as it will help us to evaluate the performance objectives in terms of four distinct V's that are (a) Volume, (b) Variety, (c) Variation and (d) Visibility respectively.

2.2. Five Performance Indicators and Competitiveness in Aviation Sector

Now is the era of globalisation where dynamic environment demands the firm to be more efficient in its operations and management to sustain its place as well compete in the market with strong edge, these five performance indicators (speed, cost, durability, dependability, and quality) serve as essential tool. The changing trends in the market has led to the severe and intense competition in the market that drives the firms to have core competencies that ensure firms gain advantage over other existing and emerging rivals (Waters, 2003). This means that the main focus of business to enhance its performances are to achieve sustainability and dominance factor in the operating markets, which require the firms to be able to determine and evaluate the organisational performances through these five performance indicators (cost, speed, durability, dependability, and quality) respectively. Nowadays, production units, marketers, business analysts, and employers are using more often the five performance objectives to keep a control and measure of its performances in the market (Chan et al., 2003). To keep a dominance in the market and in relevant industry, a company must have certain unique and fundamental core competencies that leads to develop

competitive advantage in the dynamics of global competition, designed based on competitive strategies.

Porter (1991) strongly emphasis on the notion that, in comparison to the competing products, when a firm can provide additional value to the consumers, therefore the five performance indicators are important drivers for the organisation to ensure that the performances are as per interest and set objectives (P.40). Similarly, Parnell (2006) suggest that the improvement in the sales and increases in the revenue for the organisation is resulted from setting the competitive priorities. Furthermore, Bowman (1974) propose the notion that "systematic search for increasing organisational benefits is regarded as strategy". This means that to ensure strategies of the firm is competitive is an essential component. "Five sources that enable the organisation in attaining the competitive edge are (i) technology, (ii) demand modification, (iii) emergence of new segment, (iv) shift in cost structure, and (v) changes in the regulations related to the industry respectively" (Passemard and Kleiner, 2000). Therefore, it can be said that cost, speed, quality, dependability, and flexibility are drivers that can inform the top management about the actual performance of the operations. More primarily the focus of strategies related to competitiveness are concerned with address the reasons and means of competing with the rivals in the specific industry. Such strategies confirms that services or product are being preferred by consumers in contrast to the other rivals. The emerging and present competitors are unable to create the same value for their own product and services through implementing same strategy is in actual a competitive advantage to the firm of having its own originality backed by proper strategies.

For this purpose, it is also important that the proper and detailed analysis of the market in terms of concentration, conditions, and process are essential considerations to properly evaluate the variations in the actual performances of the organisations in any given industry. Though general notion is that every small or big business in an industry develops their own features that works to create better values for the consumers and consumer prefers it over other existing products and services. In the meantime, standard foundations of cut-throat benefit contain possession of resources or spot, ability to have prompt access in supply and distribution, as well as ability of leading information related to proficiency and potential in business functioning are some of the key elements for gaining edge over rivals in the market through these set of internal competencies. A competitiveness tends to be attain in actual, if a firm does better, efficiently, and effectively than the competitors in satisfying the needs of consumers. The consumer's actual value addition can only enable the firm to gain competitive advantage. Hence, Osman, and Galang, (2011) in order to maintain competitiveness, most beneficial may appear the generic strategies in the shape of cost leadership, market focus, and differentiation. Therefore, we can say that to succeed, firms should focus on adding the value.

The significance of adding value is credited to competitiveness:

As per Schendel and Hofer (1979), there are four basic components that increase the value for the consumers, and these are as (a) developing a proper understanding about the value perception of the consumers, (b) quality assurance, (c) services at optimal level, and (d) prompt respond to various threats and opportunities. The customer's loyalty is created through bundles of benefits being provided by the company, as the competitive edge is gained, and it also increase the price for the goods and services in due course of its values. The cost itself can be deduce by the company while utilizing the huge amount of volume. Skinner (2011) argue that attached with the corporate strategic process is an integral part is production functioning. This means that the edge in the market can also be attained through developing strategies related to reducing cost in the production process. Same study proposed that a proper balance is required between production processing and functions of marketing and plant and equipment, labour and staffing, designing product, controlling production, and operations management are five important decision areas in every

other industry. Therefore, the five performance indicators are significant in measuring the performances so that the values are created for the consumers, leading to gain competitive advantage. "The competencies in the functional areas are important factor for increasing competitive edge in the market for the firm" Evans and Lindsay, (1996). So, we can say that quality, control, speed, durability, and dependability are five important elements to ensure firm is maintaining its competencies in the functional areas.

There is no opposing to the concept that the cost along with other four factors, that is quality, speed, flexibility, and dependability. "The values it creates for the firm is that it enable the firm to either be order winning, order qualifying, or even stating that less significant factors for the firm" (Slack et al, 1995, p72). The notion reflected here is that the performance of the business is being communicated that where it stands in comparison with the other rivals, especially if the factors are actively contributing towards the winning. Main theme behind using these five objectives is to ensure that the operations management is performing properly and effectively in creating the value for the consumers. Alike, a value for the consumers is created when he or she give priority to the products or services of a chosen company over other rivals. Certainly, the firm gains a competitive edge as it becomes the priority for the consumers (Slack et al., 1995 p72). Slake et al., (1995) also suggest that, less significant are those elements that lacks the ability to create a mark and impression on the consumers as being a qualifying product (P. 72). The notion is that it a product or services lack to create a strong impact on the consumers. Peters (1998) advocates that firms must find out the right plan and build up the elastic strategies so that they easily cope up with the changes and modification and promptly reply in effective and efficiently to the changing dynamics operating the market.

the ability to cope up with the required changes and have high adaption skills make a firm to survive long in the dynamics.

Objectives of Order-winning and Order-qualifying:

The focus of the firm in every industry is to develop approaches that will ensure to make it more attractive towards the consumers. In the aviation industry, consumer satisfaction is only when the airlines develop services that fulfil the demands of the consumers. A firm can only be order-winning if it is able to meet the demands of the consumers and responding it with efficient and effective solution. The difference between order-winning and order-qualifying is explained by Slack et al., (1995) as order-qualifying is aspects that enable the firm to be competent enough to be considered by the consumers whereas the order-winning is related to the competencies that attracts the consumers to consume the same services or product again and again.

Order winning is considered as, the ability to be consumed by the audience ahead of other product due to its performances. "Things that notably and contributes in more direct manner to winning business" (Slack et al. 1995). On the other hand, order qualifying is, the needs and demands of passengers are matched but there is no significant difference between competitors and your products and services will only enable to quality. "Neither order winning or qualifying. consumers are not being greatly influenced by them in any particular manner" (Slack et al. 1995).

Results of various empirical research:

It is essential to understand in depth the competitive advantage and operations management, therefore the elucidation of the past research must be examined in exploratory manner. As per Coyne and Kevin (1986), the internal and external environment is being affected as sustainability is gained by the firms through competitiveness. On the other hand, Barney (1991) strongly argues that sustainability is gained through effective resource allocation in the operations management. "The sustainability can only be gained in the short run by the firm through operations performance objectives" (Bharadwaj et al, 1993). Hence, if the study of Bradley and Hill, (1983) is evaluated,

it is evident that competitive advantage is achieved when firms identify and translate the core competencies in their operations.

Identification of competitiveness in operations

Porter (2001) suggests that various environmental scanning tools can be considered by the firm to ensure its operations are competitive in comparison with the rivals. The table below is developed for the BA to explain the five-performance objective's role in exploring the competitiveness.

| COMPETITIVE INDICATOR. | PERFORMANCE OBJECTIVE OF BRITISH AIRWAYS. | PASSENGERS NEEDS FORM BRITISH AIRWAYS. |
|------------------------|--|---|
| FELEXIBILITY | Offers variation in flights for the passengers | Flights need to be more viable. |
| COST | High volume /high profit. | Reasonable tickets. |
| QUALITY | As per expectations of the passengers | Proper maintenance of the Aircraft should be made. |
| SPEED | Short –haul as well distanced ones | Quicker turnaround of aircraft required. |
| DEPENDABILITY | Arriving as per schedule. | Ensure that the departures as well arrival are on time. |

Ref: Adapted from Slack *et al* (2001)

The above table is to reflect the objectives and performance of BA from the consumer's perspective. As per Pycraft (2000) it is essential for the firms to satisfy the consumer's needs and demands. All the five performance indicators are linked with each other as there is reduction in the cost, there is more speed in the operations. With more speed there is more dependability. The dependability of the services is also linked with the flexibility and quality.

Performance objectives are influenced by the rivals:

Porter, (2001) proposed the notion that the targeted audience will be influenced by the certain services or product highly depends on the ability of the firm to create the value in the eyes and minds of the consumers. "the performance objectives of a firm are usually affected by the competitors" (Slack *t al.*, 2004). For instance, the design, packaging, cost, delivery services, channels of the distribution for a product or services are usually developed by keeping the competitor's approach.

Porter and Millar (1980) consider the technology as a key factor that has an impact of the performance objectives of the firm. The quality can be improved, more flexibility in reaching targeted audience, cost can be controlled by new innovative techniques, and dependability among the customers can be increased b using the technology. In short, all the performance objectives can be improved by means of adaption of advance technology. As the competitors adopt these technologies, the other firms also use it to ensure that performance objectives are being achieved in a realistic manner.

In case of British Airways after its merger with Iberia has emerged as cost effective and dependable airline with reasonable fare in the European coast operations. These all have been done due to the reduction of cost strategy of the rivals like British Airways, Easyjet, and Virgin airlines (Travel and Tourism, 2012). Johnston (2003) also suggest that the design modification is usually made to gain the competitive edge as well it ensure that the cost is being reduced for the firm. Furthermore, in the international circuit, BA is considered as one of world's largest airlines that manages its operations in numerous part of the world with low cost, due to outsourcing its almost all operational activities (Haque, 2011). The brand reputation of the BA is also effective strategic step that is offering the low cost to the consumers with high flexibility and dependability (BA, 2012). The reduction in the fare and more flexibility in the operations is done to compete with another low-fare airline British Airways (Haque, 2011).

2.3. Assessing the Operations and Competitive Advantage Correlation

For the creation of body of knowledge regarding the value placement in the market, competitive edge and operations together play essential role. Numerous types of strategies like support strategy, drive strategy and implement strategy are essential in operations.

- **Implementing business strategy**

Barney (1986) recommends that cost of market must be constructed by the firms to attain competitiveness in the market by implementing business strategies that are cost-effective for the operations. The proper know-how about the market structure enhance the chances of successful implementation of strategies. Duran (2010) proposes that the quality performances will ensure that the firm is progressing in right direction (P. 07). Therefore, it can be evaluated from these different notions that the competitiveness will occur for the firms when complete market awareness is there and quality-oriented services will lead to the competitive advantage. On the other hand, Lewis (2010) consider implementation of a business strategy require proper practice. Thus, to be effective, practice required to implement the strategy will come through performance objectives. Porter (1980) considered that high revenue and low volume is essential for the strategy implementation.

At BA, the implementation of business strategies are as ease of access, tickets availability, online information related to various offers and flights, customer loyalty programs, and online booking and reservations.

- **Supporting business strategy**

Flexibility and quality are two integral elements that assists and facilitates the firm in increasing economic growth to gain a clear edge over other inline rivals. McGarahan and Schoemehl, (2000) suggest that placement of the product and services in the market is being influenced by the demands of the consumers, therefore it is essential for the operations to develop a better know how about it. On the other hand, slack et al., (2004) the firm's capabilities are being developed by means of supporting strategies. Porter (1985) explains the supporting strategies as ideas for the leaders to be cost differentiated in the market.

This means that supporting strategies helps the firm in executing the actual strategies by creating awareness of the market position, cost-differentiation, etc. For instance, British Airways making offers to the passengers to fly with it as it offers low cost travelling as compared to the rivals is in actual a supporting strategy to the overall corporate and business strategies.

- **Driving business strategy**

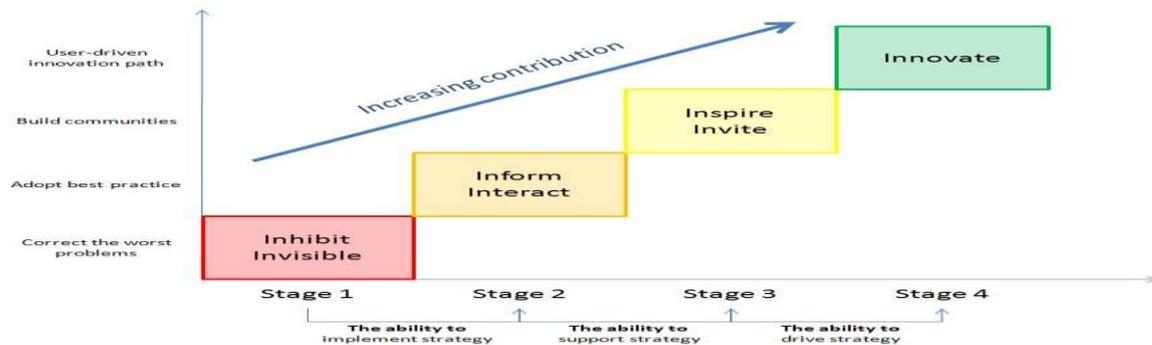
The third long term advancement strategy is driving business strategies to accomplish the competitive advantage. It facilitates the organisation to gain edge in the market through performance objectives. Lewis (2010) the innovation in the product development is a result of driving strategies to build strong customer-supplier relationship. When there is a strong customer-supplier relationship in the market, there are more chances of making customer loyalty as it makes more difficult for the competitors to imitate the work of the firm. This relationship is the result of the driving strategies, that eventually enable the firm to gain competitive advantage.

The quality is the main feature of BA which has improved the customer loyalty for the firm in recent times. The relationship between customer-supplier has been improved due to the driving strategies, such as loyalty program, online reservation, last minute rescheduling of flights for emergency situations to passengers.

Operations Contributions:

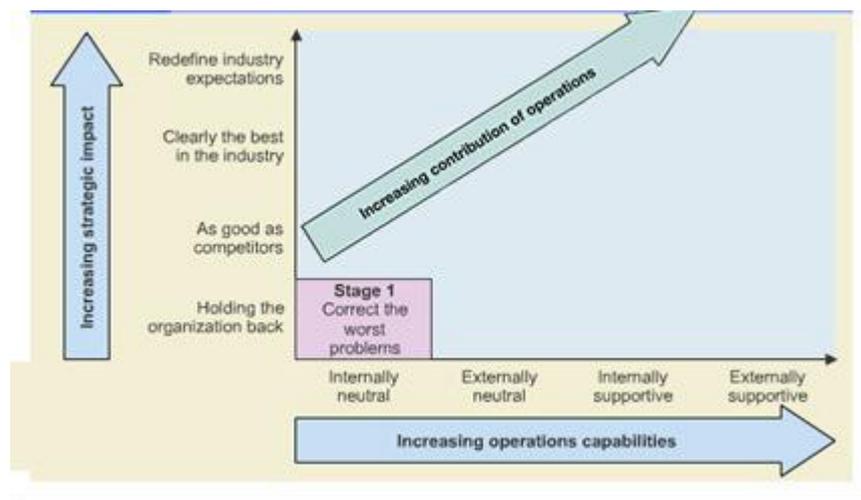
Four stage model of operations contribution

Woodruff, (1997) operation functions derive the company towards achieving competencies. Hence, we evaluate the four-stage model designed by Hayes and wheelwright (1984) to explore the operations function in attaining competitive edge. These four different stages reveal the operations functions and types of strategies to achieve competitive advantage.

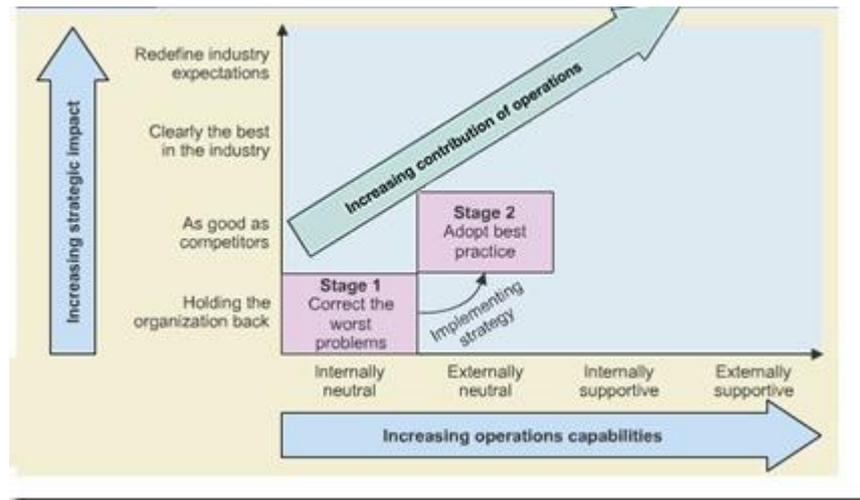


Source: Hayes and Wheelwright (1984), "Four stage model for operations management"

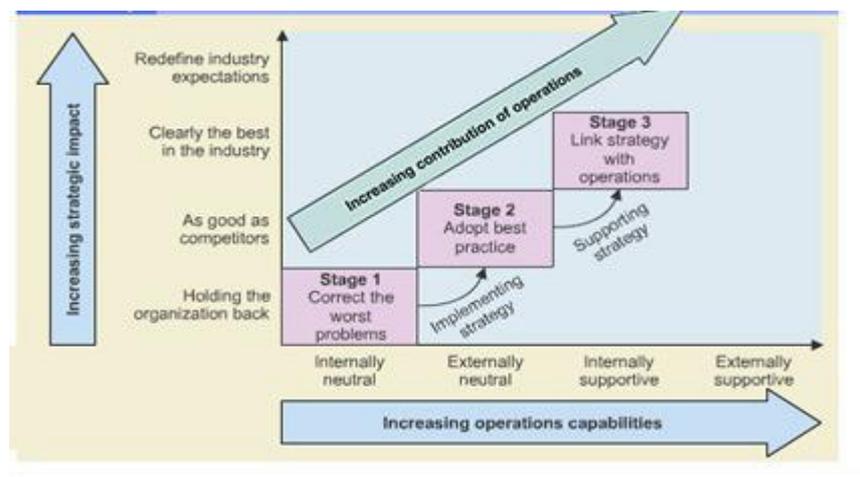
- ❖ **Stage 1: internal neutrality.** The management works more as the operations are low due to lack of the strategies. Therefore, the operations are not as effective. The organisation must seek the right channels to ensure the ability to implement strategy to gain competitive advantage.



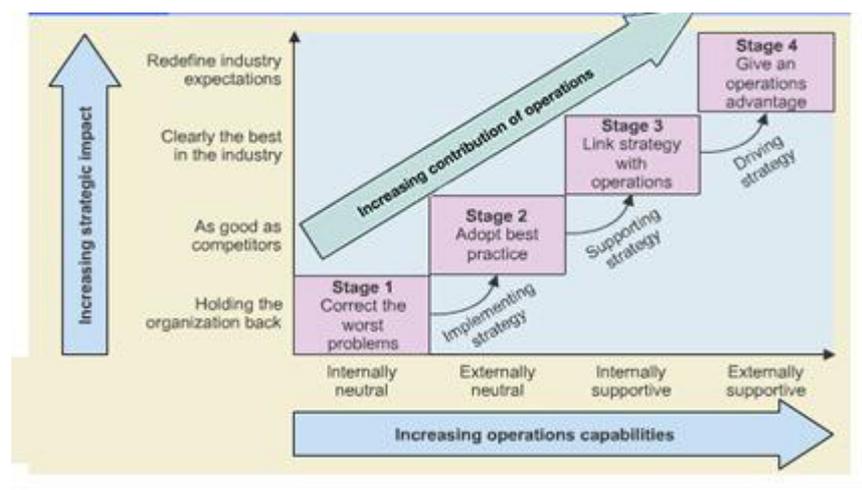
- ❖ **Stage 2: External neutrality.** The stage where firm in actual make advances towards improving the brand image in the market. This is to gain competitive strategy to succeed in the operating market. It is significant for the firm to have by means of developing to achieve the excellence through support strategies.



- ❖ **Stage 3: internally supportive.** The support strategies in actual is working for the organisation to gain competitiveness in its operations as the better understanding of the market is being developed. The competitive advantage is gained through effective support strategies.



- ❖ **Stage 4: Externally supportive.** This is the stage where high level of operation functions are operating and enable the firm to have a clear lead and competitive advantage by satisfying the consumer needs and demands, A relationship between customer-supplier improves due to the driving strategies of a company. Hayes and wheelwright (1984) through this model explain the effective patterns of firm's achieving the competitive advantage due to operations management and performance objectives.



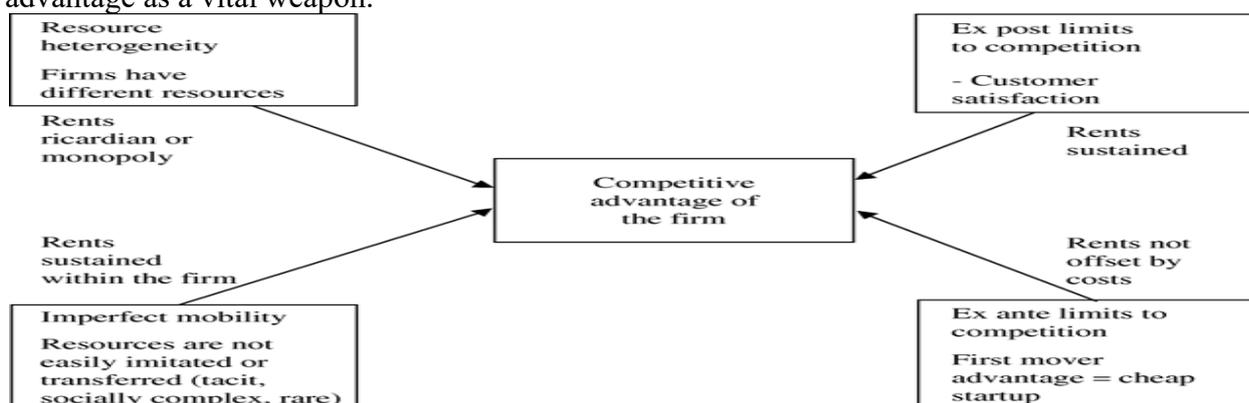
The performance objectives are blend with the different types of strategies and used effectively by the British Airways to compete with the other competitors in the aviation industry as their position is stable and it is able to keep the average variable cost under the average and marginal revenue.

Strategic Dimension:

The top management's plans and strategies to gain competitive advantage is attained by the helps of five key performance indicators. Huczynski, and Buchanan, (2001) explain that management's scientific principles serve foundation for the formation of the strategic dimensions. The order winning and order qualifying abilities are being achieved by the firms through capturing the market information which is done through the strategic dimensions. On the other hand, Vida and Firhurst, (1998) state that factors within the organisation are more crucial and has the power to make strong impact. These are a core result of strategic developments inside the organisation. Therefore, it can be said that the operations management is correlated to the strategic dimensions in a close manner whereas the decisions may turn out to be differentiated in the external operations which may drive the organisation towards innovation.

Competitive analysis:

The consumer satisfaction is associated with the performance of operations management as it is essential for the business because the purpose of the existence of every organisation it to increase its revenue and market share. For the increase of market share, firms do consider competitive advantage as a vital weapon.



Source: Peteraf (1993, p. 186)

Peteraf, (1993) proposes four factors as a key to gain competitive advantage as (1) Heterogeneity (2) Ex post barriers to competition, (3) Mobility to sustain the firms and (4) Ex ante limits to competition. These four together ensure that the market is not only control but dominated to the large extent. Moreover, sustainability is the result of these for factors working in close coordination

It is possible to have sustainability in long term but more often sustainability and competitive advantage is viewed in short runs. due to the dynamic nature of the external environment results in perishing the sustainability in the long term. To ensure that no one replaces your brand, firms use core competencies. Grant, (1991) proposed replicability, durability, transparency, and transferability are factors that influences the sustainability. Therefore, firms should design competitive strategies to ensure long term sustainability, Whereas, Taylor, (2009) considered the innovation as a fine factor to gain competitive advantage as well provide sustainability.

3. Hypotheses:

Hypothetico-Inductive-Deductive Model has been used in the present research study to elaborate the concepts and findings of the research. As hypothesis is, "there is a considerably strong connection between competitive edge and the ongoing activities of operations management". To establish the research point, Null and Alternative hypothesis are undertaken.

Null Hypothesis:

Ho: *"In the constantly dynamic environment, a strong relationship exists between operational activities and competitive advantage as operations management is affecting performance to attain edge in competitions"*.

Alternative Hypothesis:

H1: *"In the constantly dynamic environment, there is no strong relationship that is existing between operational activities and competitive advantage. And operations management is not affecting performance to attain edge in competitions"*.

4. Research Methodology:

Cross sectional study design is taken for the research problem at hand. This is mainly considered because of the time issue. Time is one of the biggest constrain, if longitudinal research design was taken than researcher would have needed more time. Though longitudinal research would have elaborated the study in more depth, but cross-sectional design is also accurate one and will serve the cause. As per Saunders et al, (2009) research onion enables the researchers to select the research approach based on the type of philosophy. The researcher in present study have considered the research onion to explain the philosophy and select the approach as it is basic research so cross-sectional study pattern is more fruitful.

The philosophy is 'Positive' as the investigation is more in subjective manner and tends to carry out the investigation in the detailed manner so positive philosophy has enabled the researcher to find the correlation among various selected variables in the comprehensive manner. philosophy is considered to examine the research problem in more detailed and subjective pattern. The approach is mixed of both, qualitative as well quantitative method as the rationality is increasing the body of knowledge about the various factors in the aviation industry hence, hypothetic-Inductive-deductive model is used so that information is gathered from large sources and leads to one specific notion. This model helps in observance of the sampling in more closely manner, as per Hannabuss (1993) the probability of exploring the information in more detailed manner increases due to direct, closed and open manner by the researcher getting involve with the respondents. Considering inductive approach first, Patton (1990) suggest that the key points can be established as well explored in more detailed ways due to this type of approach. In depth interviews are part of qualitative approach that is used in research as in less time, more detail investigation can be determined through this technique (Sekaran, 2002). Quantitative analysis as well as qualitative analysis are used in different social science studies often to gain in-depth understanding of the phenomenon (Faizan & Haque, 2015; Faizan & Haque, 2016; Faizan & Haque, 2019; Faizan et al. 2018; Faizan et al. 2019; Gusakov et al. 2020; Haque, 2012; Haque & Aston, 2016; Haque et al.

2016; Haque et al. 2018; Haque, Aydin & Uysal, 2017; Haque et al. 2017; Haque et al. 2015; Haque, Kot & Imran, 2019; Haque, Nair & Kucukaltan, 2019; Haque & Oino, 2019; Haque, Sher & Urbanski, 2020; Haque & Yamoah, 2014; Imran et al. 2018; Imran, Hameed & Haque, 2018; Imran, Haque & Rebilas, 2018; Javed et al. 2018a; Javed et al. 2018b; Kot et al. 2019a; Kot et al. 2019b; Kot et al. 2020; Ślusarczyk et al. 2019; Ślusarczyk et al. 2020; U-Hameed et al. 2018; Urbański & Haque 2020; Urbański, Haque & Oino, 2018). Social trends should also be considered while investigating different perspectives (Nair et al. 2021).

Haque et al. (2020) argued that there is still no agreement on a widely accepted definition of sustainability. Several factors may decrease employee performance (A Rahim et al. 2022). Consumer psychology is equally important (Yamoah et al. 2022). The fact that the sector accounts for a great percentage of the employable population in the developing world is a demonstration of its importance to a country's economic stability (Ogwu et al. 2022). Various social and economic factors impact the country and its operations (Haque, 2022). In this study, a cross-sectional research design used, and the data collection within a six-month period (Haque, 2021; Imran et al. 2019; Yamoah & Haque, 2020). For this research, after careful analysis of the situation, researcher has opted for the non-probability sampling and as there is less time available therefore in the non-probability sampling, "Convenience based sampling" technique is used by the researcher. Though this technique has high generalizability factor, but it is not as accurate as other probability techniques. The advantage is that this has high convenience in the research process and as the socio-economic environment is huge so the results can be generalized easily. However, "stratified sampling technique" would have brought more accurate and adequate findings as the British Airways is spread on vast area and employees are present in stratified locations but this technique does not bring high generalizability. Therefore, researcher opted for convenience sampling as this research require high generalizability in it. The interviews (research instrument) with the members of the management is done to ensure that their perspective is not only included but elaborated with the ongoing operational activities and the research questionnaire is used for this research is based on the "Value survey model". The researcher has distributed the research questionnaire (research instrument) personally in the participants to ensure that the findings are accurate, and no respondent is being manipulated by anyone.

Though at the start, researcher decided to have 300 as an optimal population size to carry out the investigation and 220 was to be taken as the sampling size, but due to time limitation and the distance between different areas led to the decision of reducing the population by 100 and sampling size to the 82.5% of the population. Therefore, out of 200 population size, 165 individuals were undertaken as a sample set. The sample set was divided into three parts as St. James's-Piccadilly, Main Head quarter, and Heathrow International- London respectively.

| SAMPLE SET | |
|---------------------------------|--------------|
| Sample Location | Participants |
| St. James's- Piccadilly | 19 |
| Head quarter | 44 |
| Heathrow International - London | 102 |

From all these above mentioned three distinct locations, almost 63% of the sample set was made as the middle line managers were nearly 23% and approximately 31% of the participants from top management.

The main research instrument in this study is a personally designed "survey questionnaire" that is split into two parts, A and B respectively. A part is basically a demographic description in which there are five questions related to the respondent's background details whereas in Part B, 15 questions are used by the researcher to establish the link between operations management activities

and role of the effectiveness of the five performance indicators in attaining the competitive advantage. The questionnaire is structured and close ended so that respondents stick to the topic and may not deviate from the sole of the subject at hand. In a structured and close ended questionnaire to establish a correlation between research variables at hand. It is a matrix degree based questionnaire, starting from 1 at one extreme end and continue to move towards 5, where 1 is considered as the most important and 5 is not important at all, (such as 1= Very important, 2= Important, 3= moderate, 4= less important, 5= not important at all) and the evaluation of the findings are done on the basis of LIKERT SCALE as the ranking is done through same scale. The researcher sticks to the same instrument that has been used in the research investigation by Christie, Won, Stoeberl & Baumhart, (2003). This is done to ensure that the correlation can be determined the impact of independent variables as well on the dependent variable, keeping environmental factors as moderate variables can be measured adequately.

The data collection process involves the researcher personally so that nothing is left incomplete nor neglected. For this research, 18-55 was the age bracket criterion decided as the travellers are usually in between this age bracket. Once the targeted audience was decided for the research investigation, another important notion was extraction of information from primary as well secondary sources.

Secondary and Primary research are the two main data collection procedures for all types of the researches. When the researcher decided to select data directly from the source as first hand, it is regarded as primary data. The value of such data is more as this comes in direct contact, there are less chances of manipulation and errors. The confidence of the researchers is high. As per Kumar (2009) survey questionnaire observations along with the direct interviews are main primary methods of data extraction and it is more reliable because there is direct contact of researcher with his respondents, but such data is more costly one. In present investigation, in depth interviews as face-to-face interviews along with the telephonic interviews are done with the members of chosen case study so that direct information is availed. Moreover, survey questionnaire is also used as a prime source to gather information about research problem.

This is regarded as second hand data where researcher is not directly involve and information is already available to the researcher in shape of books, journals, articles, newspapers, etc. Though it is less expensive, but its accuracy is always an arguable subject. Researcher in this research has used secondary sources also to ensure that both primary and secondary data provide sufficient material in order to answer the research question.

The secondary sources are used to gather information whereas that information that was not available to the researcher and was essential to be availed in order to reach conclusion was availed through primary data collection method. Hence, primary and secondary data, both are used in this research.

Since, the research is a mixed one, combination of both primary as well secondary data sources to form qualitative-quantitative research approach. Interviews provided qualitative aspect whereas numerically expressed results are driven from the questionnaire, providing quantitative details. The researcher has used *Z-test* as a statistical tool to quantify the result findings, availed from the survey questionnaire. Since the sample size is more than 30 therefore z-test is used. As per Saliowsky (2005), for the creation of the linkage between dependent and independent variables, z-test is very significant one. Through this statistical tool, the objective of this research is clearly explained.

5. Findings, Analysis and Discussion:

Interview's Results:

The Interview is conducted with the crew members of the British Airways.

Do you think that BA's current operations management activities have potential to increase the share in the competitive market?

"Yes, it has the potential and in fact can become the leading airline in the EU market as the rating has improved from 4 to 7 as being safest airline in European and International Market".

Discussion: The above quoted sentence is one of the reply from the member of crew. The interview with different members revealed that recently the operations have improved for the BA as it stands as one of the safest airline to fly with as per Smith (2013 reported in Travel Newspaper, June 2013 edition). The operational activities are becoming more dependable as consumers are more satisfied with the airlines travelling and operation procedures. The position in the EU market has improved for BA which means that the competitive advantage is availed (*Appendix B, iii*).

In attaining the competitive advantage, what has been the role of operations management?

"Without smooth and effective operations management, BA would have not been able to achieve what it has already achieved in the international market".

"Yes, to me British Airways accomplished competitiveness due to its operations management"

Discussion: The discussion with the crew members revealed that they believe there is a strong relationship between operations management's effectiveness and competitive advantage. The discussion revealed that customers are more satisfied with the firm's ability to deliver the services on time as the customer expectations are fulfilled there is visible increase in the market share of the company (*Appendix B, iii*). The findings resemble with the literature used in the research investigation as Slack et al, (1995) explains the three criterion of being order winners, order qualifier, and the areas of less important (P. 72). Through its operations management, BA has won the order backed by the operations management effectiveness.

In your Opinion what is most important factor for BA in gaining competitive edge? "Price for sure".

"Cost and Price".

"Speed"

"Price, is the most difference making factor"

"Quality has played its part".

Discussion: BA has been able to adjust price quickly with the changing circumstances that is one the reason for its increasing market share. The literature available indicate to the same notion as per Peters, (1998), though flexibility is the key for the company's survival but to gain competitive edge over competitors is through price. Moreover, the discussion with the crew members suggest that majority of the employees feel that price is significant determinant in the process as it gives the firm advantage to adjust in the cut-throat environment by sustaining its position in the long run (*Appendix B-iii*).

Do you think that performance indicators are helping BA in practical implication of plans in attaining competitive advantage?

"Yes, very much it is helping form".

"Somehow, one way or the other way it is very much helping in the execution of plans leading to

overcome competitor's strategies".

Discussion: The point of discussion revealed that senior members of BA agrees that performance indicators do help company in strategizing and re-strategizing its plans and policies to overcome the rival (*Appendix B-iii*). comparing the outcome of the interview with the literature at hand, Pycraft (2000) also suggested that companies usually uses the performance indicators to plan its approaches in attaining competitive advantage as these objectives are used by firms to ensure they have these core competencies in the operating markets.

Arranging in order of importance, how would you put them? (Cost, Speed, Flexibility, dependability, and quality).

"Cost, Speed, Flexibility, Dependability, and quality"

"Speed, Quality, Flexibility, Cost, & Dependability"

"1. Cost, 2. Quality, 3.Speed,4. Flexibility, 5. Dependability"

"Cost, dependability, Speed, quality, and Flexibility".

Majority of the respondents considers 'COST-Price' as important factor for BA.

Do you think BA is leading in the overall competition? If yes, close competitors?

"There is intense competition, especially EasyJet and Ryanair are one of the biggest threats for the BA but overall yes, it is leading"

"If not exactly with great margin but yes, it is leading as it is rated as one of the safest airlines to travel with"

Discussion: The literature review showed that Nigel et al (2004) considers that performance indicators is enabling the firms to outclass competitors. In the article of Smith (June Edition- 2013) also we noticed that BA has improved its star rating as it is considered now to be as one of the safest airlines to travel by so this means that the findings of the primary investigation is aligned with literature because BA is leading the competition to some extent now in the long hauls as the financial performances have improved (*Appendix B-ii*).

What is the ONE factor you think BA needs to focus on?

"Flexibility"

"Dependability"

"Flexibility for sure"

"The operations as well management needs to bring more flexibility in scheduling flights"

Discussion: The match of the discussion with the literature are same as Johnston, (2003) emphasis that flexibility is one option that increases firm's ability to sustain its position in the dynamics. At the case study, the findings are that flexibility is one major concern for the firm, it needs to focus on it to enhance more its market worth (*Appendix B-iii*).

Telephonic Interview:

The telephonic interview was done with the member and manager of BA's operations at St. James-Piccadilly office.

In developing strategies, how five performance indicators contribute?

"By even mean it is considered when BA decides to carry out its operations. The merger with Iberia was also the strategy undertaken after using performance indicators".

Discussion: The interview results showed that these five performance indicators have been a vital tool for the major strategy development and executions of the strategies to achieve competitive advantage. The biggest decision such as merger with Iberia, designing loyalty card, and reducing the prices for the EU destinations are all result of the consideration of five performance indicators.

Thus, it can be said that BA attained the competitive edge in the recent times due to improving and focusing of the five performance objectives. The literature showed that too as per Slack, et al., (2004) Cost is one of the important factors every organisation consider while deciding to design the strategies. Moreover, same study revealed that flexibility, speed, dependability, and price are factors that directly have an impact on the performances as well strategies of the organisation. In addition to that, Johnston, (2003) argues that when firm reduces the price, the chances of increase in the output are more likely. Hence, through low price, firm is attaining advantage to increase its market share as well the strategies formulation become easier (*Appendix B, iii*).

Since recently it is declared as the safest airline, what is most important factor that now BA's management is trying to focus on?

"All of the five factors are important, but quality is more important one that we are looking to improve on".

Discussion: Though there is yet no one specific and confirmed formula to explain that which of the performance indicator is more important for all types of the organisations but as per the interview, 'Quality' is the one most important factor after cost, BA is looking to improve. If a firm works on improving this one area more, there are likely chances that the market share will further expand. The results are derived from the BA's volume-variety Model (discussing, Volume, Variety, Visibility, and Variation) that has been elaborated in more depth (*Appendix B-iii*).

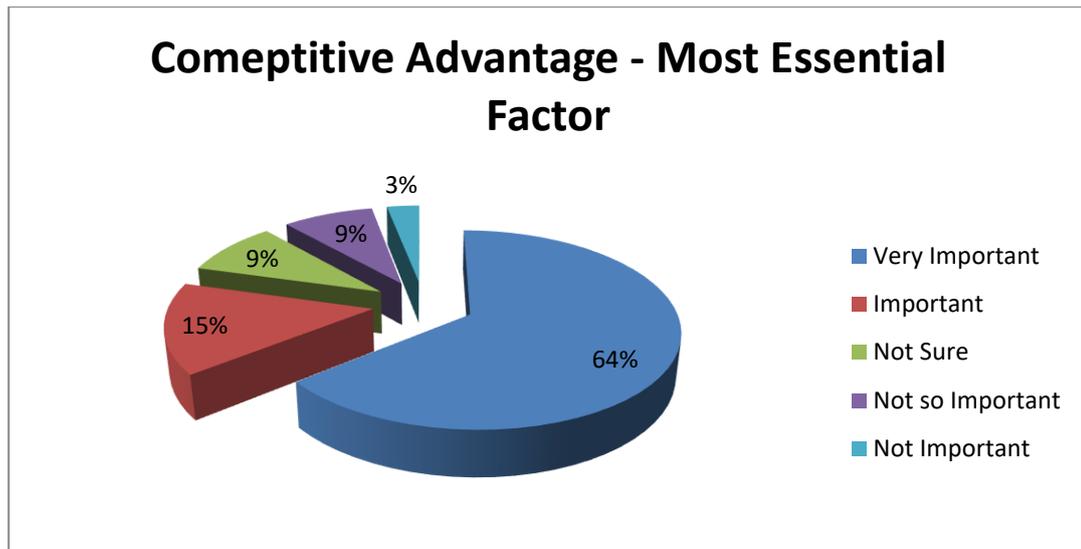
Considering day-to-day operations, Does BA take in account the five performance objectives?

"All those long terms and short-term results that has driven today, is in actual the working pattern and strategies are result of day-to-day operations. BA considers five performance objectives and lives with the same idea that from day-to-day operations to long term strategies, all indicators must be considered by all stages".

Discussion: The earlier literature shoed that for the execution of the day-t-day operations in a successful manner, firms need to have strong focus on the five performance indicators. As per Slack et al., (1995) "the consumers must measure the performance of the companies by evaluating its day-today operations through quality, speed, cost, flexibility, and dependability" (P. 72). In case of BA, it is evident that they firmly believe in the five-performance indicator as a tool to ensure competitiveness therefore in the day-to -day operations, these indicators are used as a device to measure the effectiveness. Moreover, these five performance indicators help BA in handling and channelizing the strategies to complete routine tasks (*Appendix B, iii*).

Survey Questionnaire results:

Is competitive advantage the most important factor for airline industry?



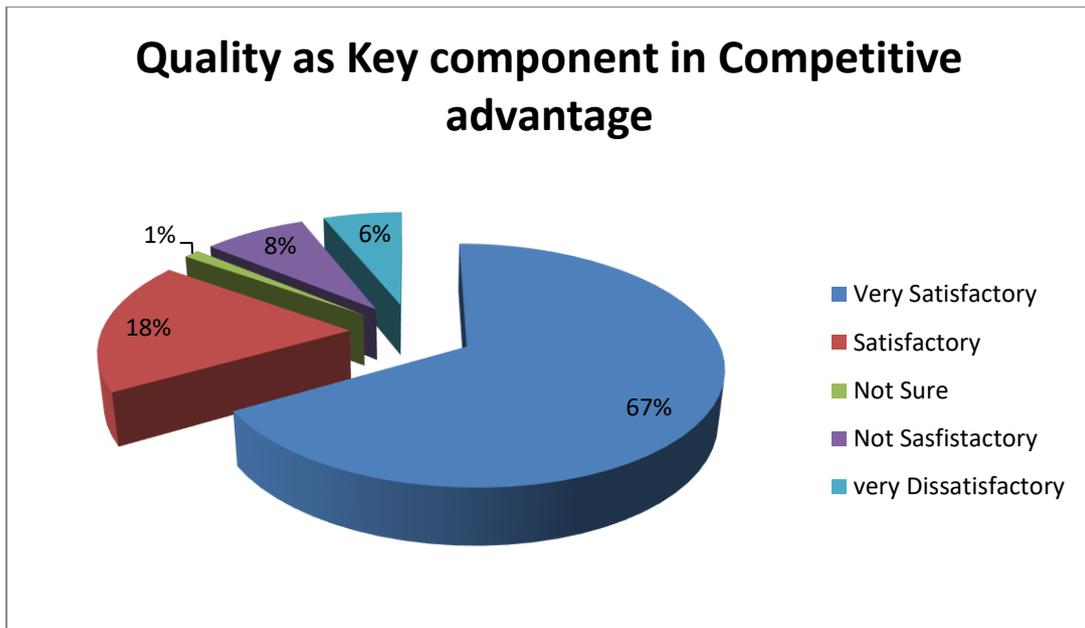
Respondents:

| | |
|------------------|------------|
| Very Important | 106 |
| Important | 25 |
| Not Sure | 15 |
| Not so Important | 14 |
| Not Important | 5 |
| Total | 165 |

Interpretation:

The survey's first question in the B-part was about the opinion about how participants view the competitive advantage in the aviation industry and the findings revealed that 64% of the sample size believe it to be essential element in the aviation industry. The findings of Porters (1998) also hold the same notion that in every industry that is engage in the commercial and economic activity must have competitive advantage at an important determinant (*Appendix A*).

Do you think Quality is the most important performance indicator for BA in attaining the competitive advantage?



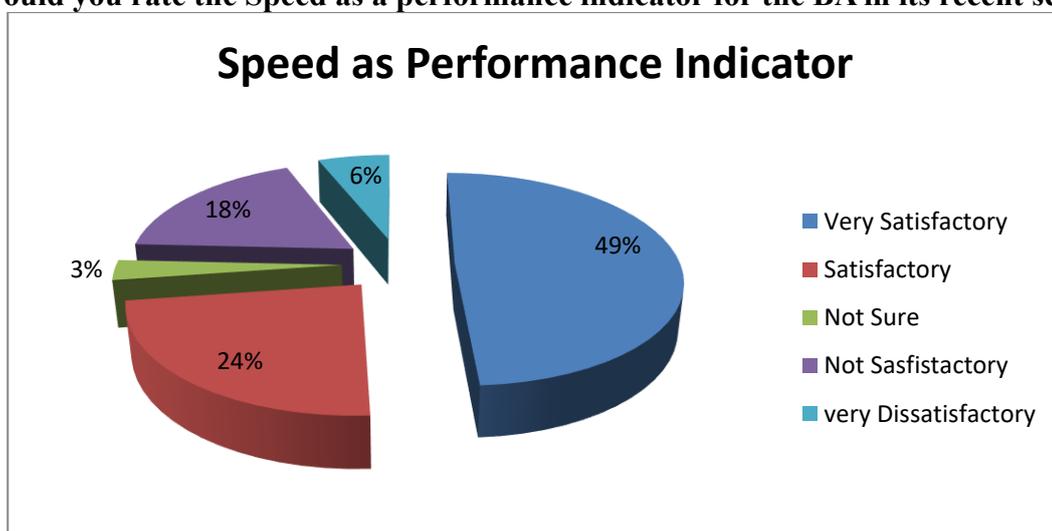
Respondents:

| | |
|----------------------|------------|
| Very Satisfactory | 110 |
| Satisfactory | 30 |
| Not Sure | 2 |
| Not satisfactory | 13 |
| Very Dissatisfactory | 10 |
| Total | 165 |

Interpretation:

67% of the respondents means that 2/3 of the sample size believe that quality is most important factor that BA has worked out on to ensure it remains competitive. Unlike the interview findings that suggested that Cost is a factor for the BA's progress, but the findings are identical to the point Smith (2013) made to reveal why BA has been able to be one of the safest and top choice airlines for the consumers in the recent years. Moreover, it the quality that have improved Sky-Trax rating for the company (*Appendix A*).

How would you rate the Speed as a performance indicator for the BA in its recent services?



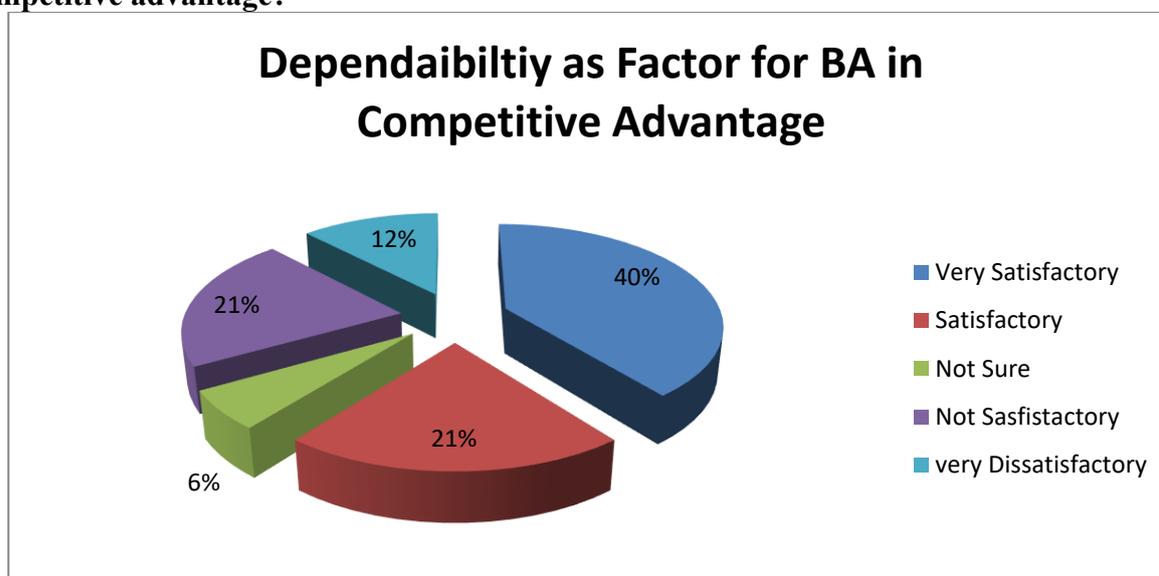
Respondents:

| | |
|----------------------|------------|
| Very Satisfactory | 110 |
| Satisfactory | 30 |
| Not Sure | 2 |
| Not satisfactory | 13 |
| Very Dissatisfactory | 10 |
| Total | 165 |

Interpretation:

Approximately 73% of the participants believe that BA has a good speed service but it is not similar to the other findings as the researcher has explored the fact that the current speed of BA's operations are not as quick as Ryanair because BA take twice a time to complete the short hauls whereas Ryanair do it in half a time. (*Appendix A*). Despite the findings, still the literature work of Nigel et al (2005) suggest that speed helps organisations in attaining competitive advantage.

In BA's recent performances, how has been the dependability as factor in achieving the competitive advantage?

**Respondents:**

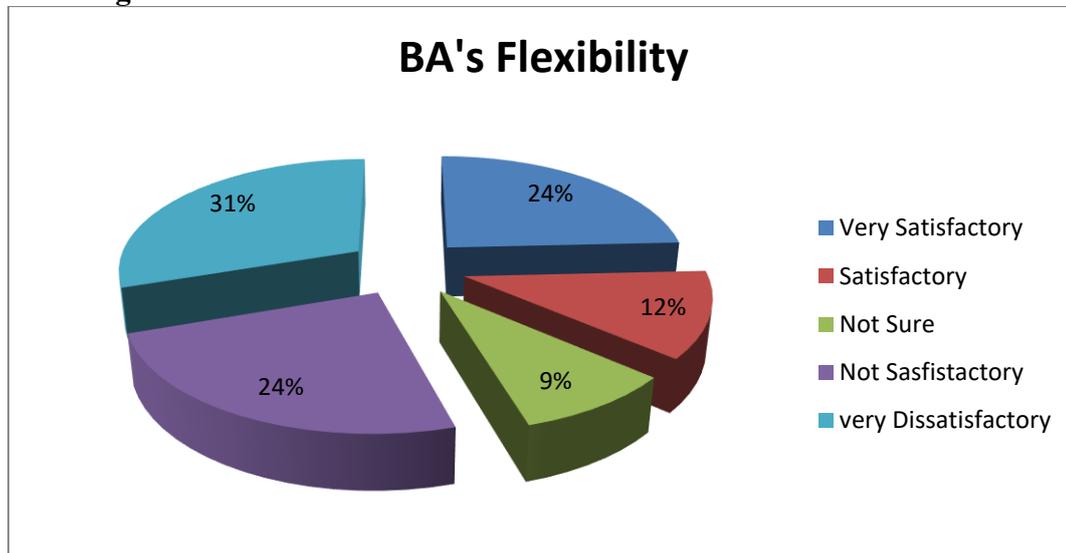
| | |
|----------------------|------------|
| Very Satisfactory | 65 |
| Satisfactory | 35 |
| Not Sure | 10 |
| Not satisfactory | 35 |
| Very Dissatisfactory | 20 |
| Total | 165 |

Interpretation:

A worry sign for the BA is that not majority of the participants feel that dependability as a factor has helped BA in assuring competitive advantage as this is not what people usually associate with BA when the image of the company emerges in their minds (*Appendix A*). However, the quality and price are usually associated with the performance of BA but there is less dependability on its operations management. Though, the literature suggest that all the factors are essential for the company in attaining edge on the rivals (Porter, 1990). The consumer usually undertakes the

experiences in account and the quality they have received for the services as their next time choice will be based on their experience (*Appendix B-i*). This is one area where BA has to focus as dependability will improve customer's experience as well perception about services.

How has been BA in maintaining flexibility in its operation management activities to avail competitive edge?



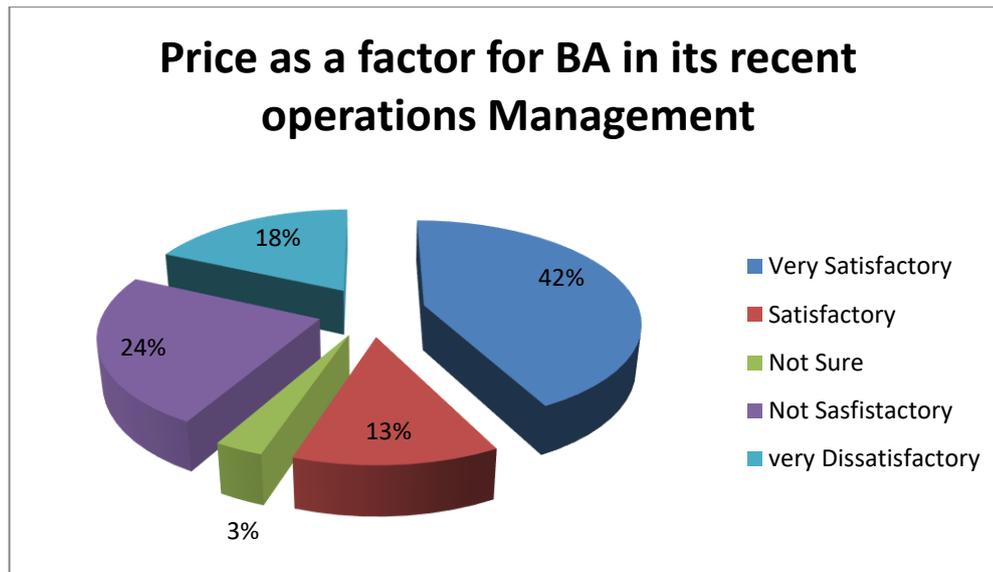
Respondents:

| | |
|----------------------|------------|
| Very Satisfactory | 40 |
| Satisfactory | 20 |
| Not Sure | 15 |
| Not satisfactory | 50 |
| Very Dissatisfactory | 40 |
| Total | 165 |

Interpretation:

The survey questionnaire results revealed that BA is not as flexible in its operational activities as the other competitors have been. This indicate that 55% of the participants are not satisfied with the present operations management in terms of the flexibility factor. To ensure the company has full grip on the market and increase its market share, it needs to develop the strategies that are more flexible, and the operations are more elastic in nature (*Appendix A*). There are some limitations that were evident in the interviews also that BA is not able to be very flexible in its operations management (*Appendix B- ii*).

How has been the Price as a key factor for BA's operations management in attaining competitive advantage?



Respondents:

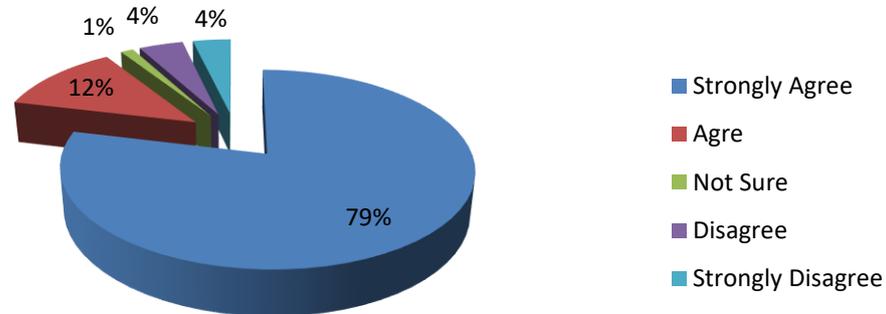
| | |
|----------------------|------------|
| Very Satisfactory | 70 |
| Satisfactory | 21 |
| Not Sure | 5 |
| Not satisfactory | 39 |
| Very Dissatisfactory | 30 |
| Total | 165 |

Interpretation:

In the recent time it is the pricing strategy that BA has used to its advantage. It has increased its market share due to reduction in the price for European destinations and majority of the respondents agree to it as 72% all in all are satisfied with its price. Hence the price is a key performance indicator for the BA to attain competitive advantage. Similar are the findings of Smith (2013) that reveals that BA has increased its market share due to reduction in the price (*Appendix A*).

Do you think there exist a strong relation between BA's Operations management and Competitive Advantage?

Strong Relationship exists Between BA's Operations management & Competitive Advantage



Respondents:

| | |
|-------------------|------------|
| Strongly Agree | 130 |
| Agree | 20 |
| Not Sure | 2 |
| Disagree | 7 |
| Strongly Disagree | 36 |
| Total | 165 |

Interpretation:

Based on the responses from the sample size, it is clear now that there exists a strong relationship between Operations management and Competitive Advantage in the aviation industry. The primary sources has confirmed that the relation is significantly strong and competitive advantage can be achieved by the firms through improving the effectiveness and efficiencies of the operations management in the rapidly changing environment. Approximately all together 91% of the sample set agree to some extent that operations management have effective role to offer for a company in attaining competitive advantage (*Appendix A & B-ii*). The previous empirical research of Nigel et al (2004), Porter (1998), and Johnston (2005)'s findings have been confirmed by this research as almost similar findings are attained by this research (*Appendix A*).

Z-Test:

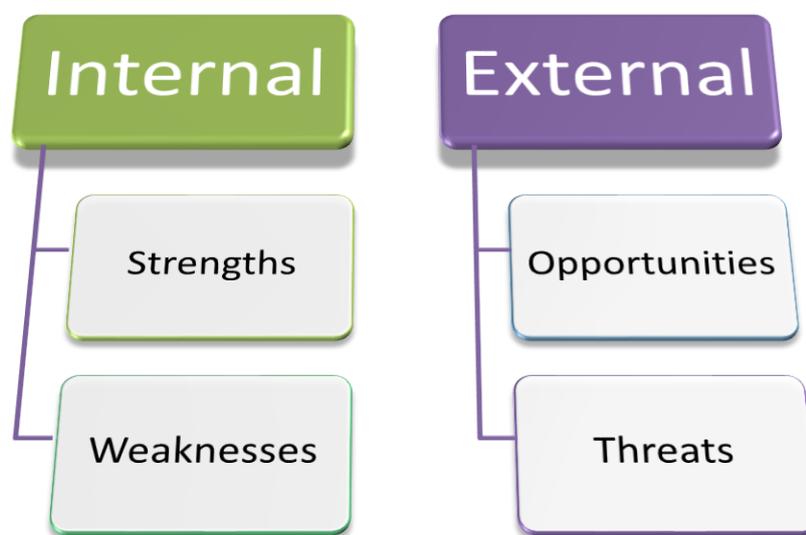
| Responses | Ratings | | | | | Total |
|------------------|-----------|-----------|-----------|-----------|----------|------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Most significant | 80 | 25 | 10 | 10 | 5 | 130 |
| Significant | 4 | 12 | 2 | 2 | 0 | 20 |
| Moderate | 0 | 0 | 2 | 0 | 0 | 2 |
| No relation | 6 | 3 | 1 | 1 | 2 | 13 |
| | 90 | 40 | 15 | 13 | 7 | 165 |

Expected

| 1 | 2 | 3 | 4 | 5 | Total | |
|----------------|----------|----------|-----------|-----------|----------------|-------------------------|
| 0.004903 | 0.047035 | 0 | 0.0050765 | 0.0027825 | 0.0174925 | The Z-test used in this |
| 0.0015065 | 0.002945 | 0.00217 | 0.00021 | 0.02585 | 0.005815 | |
| 0.00245 | 0.00245 | 0.00245 | 0.00245 | 0.00278 | 0.01258 | |
| 0.002775 | 0.00277 | 0.002771 | 0.002784 | 0.0029825 | 0.0140825 | |
| Pvalue= | | | | | 0.04994 | |

research confirms that the two set of hypotheses considered in the present investigation as one was Null hypothesis while the other one was Alternative hypothesis respectively, that 'Null Hypothesis is right hypothesis as there the value derived from the z-test is below Par value of 0.005. Hence, null hypothesis is accepted as the P-value is 0.04994, it is less than 0.005 so alternative hypothesis is rejected. The research confirms that there exists significantly strong relationship between operations management and competitive advantage (*Appendix B-ii*).

British Airways' SWOT Analysis:



SWOT –

As per Johnson and Scholes (2002), "SWOT is an environmental scanning tool which enable the firm in exploring some of the finest opportunities lying in the external domain due to its core strengths in the internal domain and aware it of some of the threats in the external environment due to its internal weaknesses". The following strengths, weaknesses, opportunities, and threats discussed are derived from the combination of primary investigation and secondary sources.

➤ Strengths

- United Kingdom's flag carrier airline
- Strong Brand Image
- Improved Sar-Trax ratings, moving from 4 to 7 stars
- Strong presence at the Heathrow Airport
- Price strategies and merger with Iberia increased market share.

From the above points, it is clear that BA enjoys strong brand image and has a very visible presence at one of the world's busiest airports. The rating has improved in the recent years which shows that the strategies and operations of BA has improved to remarkable level. It has acceptable speed in the operations that is helping it to compete in the dynamic and intense competitive environment. The price differentiation strategy and strong brand image is helping to explore more growth opportunities in the aviation industry.

➤ Weaknesses

- High employee turnover and early retirements

- Less flexibility in the operations management.
- The focus is only on mergers rather than expansion of a business in the international market.
- Heavily rely on outsourcing its IT activities

Though it is true that BA has a strong brand image but there is high employee turnover and early retirements. There are numerous cases of employee strikes in the past which is not good for its image. Moreover, the firm has less flexibility in the operations and it has less dependability too as the cancellation of flights are often noticed in the bad weathers which is not good. There is a need of a system to inform about plan delay and cancellation earlier to customers.

➤ **Opportunities**

- Likely chances of the expansion in both Vertical and Horizontal directions
- Promotion of a business through electronic media
- The improvement of quality and flexibility in the operations through training sessions and workshops.

The company can improve its operations through arranging workshops and training sessions. Moreover, the use of capital intensive strategies can further improve the service quality, flexibility, and dependability. There is opportunity to expand the business through social and electronic media as it has a very strong brand image.

➤ **Threats**

- International fuel price rising
- Increase in the terrorist activities
- Environmental taxes are increasing
- Too many players are emerging in the European aviation market.

The above mention threats are something that BA has to consider and make strategies that are helping it to compete in the market. With increase in the terrorist activities, it has to strengthen the security which means increase in the cost structure. The operations activities can be affected by this, moreover increase in the prices of fuel in the international market and environmental taxation is also increasing. These are the worry signs for the BA as if the strategies are not designed, there are chances that it will lose its market share to some of the new emerging local players in the international market.

6. Conclusion

From the extraction of facts as compiled in the primary and secondary source data, the drawn conclusion regarding the operations management performances at British Airways is that so far it has been doing exceptionally well, by reducing and maintaining low price strategies after the merger with Iberia. It can be said that it is equally parallel with the Ryanair as low-cost airline in the European market. Despite the fact, that there is intense competition in the operating market and rising prices of the fuel in the international market is making it more and more difficult for the BA to maintain its Operational activities continue in the same flow but so far, the merger with Iberia has enable it to maintain the steady progress in the EU market but reducing its fares for the long-term hauls. There are some of the premium airlines that are getting tough competition due to this which explain that BA has done exceptionally well in keeping steady progress due to its effective operations management. It is order winning airline due to quality of services, speed, and dependability factor. To ensure that it remains order winning airline, it should further improve its durability and cost factor also in more appropriate manner. The financial performances have improved for BA after recent recessions due to its effective and efficient operations management activities.

Moreover, the research questions related to the case study was to avail the comprehensive

understanding about the strong relationship between selected variables, such as operational management activities (independent variable) and competitive advantage (dependent variable) in the rapidly changing environment (moderate variable). From results, it is clear that five performance indicators are essential for the organisations to maintain a proper check of its operations management as these performance indicators enable the organisations to attain competitive advantage in the highly dynamic environment. The performance indicator gives a comprehensive information about the company's financial as well operational activities. From the survey questionnaire, the results attained reveals that to accomplish the strategic business objectives, operations management functioning is essential one as it leads the company to gain competitive advantage in the market. Moreover, results show that there is a significantly strong relationship between selected variables, that include performance indicators and competitive advantage as performance indicators tends to improve the operational activities of the company which means it informs the company about its ongoing performances and how effective it is in the market as compared to its rivals.

The survey results indicate that majority of the performance indicators are being satisfactory in terms of consumer's perception and opinions as each individual indicator has been gauged by the management to ensure the organisation is performing effectively as well efficiently in the dynamic environment. The results tally with the actual performance of the organisation as there is clear improvement in terms of financial growth so it is clear that the five performance objectives such as speed, quality, durability, dependability, and cost in real time is helping the company to compete and to some extent has enable it to hold competitive advantage in the European Market. On the basis of assumed hypotheses, the results were generated through statistical tool Z-test that also indicate that despite the fact that operational activities of BA are satisfactory to certain extent but still it has to work on improving in the department of durability, cost, to some proportion of the quality as the company still stands four star rating in the ski-track rating system.

The approach of the BA's operational activities in depth revealed that there is strong relationship between performance objectives and the competitive edge as these indicators inform the management about its ongoing performances and provide the insight about how the performances can be improved to more optimal level. Despite the fact, that BA is not the top most airline in the operating market but in the European Market, it has been so far able to maintain strong position as well lead due to its effective operations management and efficient operational strategies. There are some recommendations for the BA discussed in the next heading below.

Recommendations:

The following recommendations are discussed in the separate heading under each performance indicators separate headings. These recommendations are given on the basis of the results generated from the survey questionnaire and the interviews with the experts. The recommendations are as following:

(a) Quality

Considering the current status of the BA's aircraft maintenance, there should be more effective quality control plan as this introduction will benefit the company in long term success.

Though the service quality of the BA is to substantial level but it is not as great as other high profile flag carrier airlines do have, which means that there is room for improvement for the company to work on. This quality improvement can be done through establishing a quality control system. There are standards at present, but these are just basic level satisfactory quality that BA is providing, the refreshments provided by the BA should be improved as this is not as per consumer's taste and preference. Moreover, the service quality can be improved by proper training and development program at the premises of the BA to ensure employees are properly trained and

developed so that their motivational level is high to deliver excellence in the services. There has been issues of strikes and high employee turnover in the past, therefore BA's management should take a charge and develop serious employee benefiting programs so that the employees are more competitive and good performers. Through internal customer's satisfaction, the external customers can be satisfied.

(b) Flexibility

Being a moderate airline, rated as neither a high pricing airline nor a very low pricing airline, it has to look for in depth to its operations as it is not as highly flexible as a firm require to sustain competitive advantage in the aviation industry. The services are not as flexible as it should have been. For instance, in the bad weather, there is no backup of flights that passengers may take alternate routes to fly from another airport or another destination. In 2011, due to bad weather all flights of BA were immediately cancelled whereas PIA arranged a flight back from Manchester to pick passengers from Heathrow in late hours. Here is the flexibility factor, that is missing in operations as BA is not as flexible as it should have been in its operations.

Moreover, it should try to introduce Unique selling point by introducing the time limited flights to the targeted destinations. This will bring more flexibility in operations as it will be able to manage the flights in the busiest times.

In the luggage there should be more flexibility as customers should be given some more allowed weightier as other airlines do offer. Moreover, the cancellation and changes of flights for the passengers should be a bit more flexible as in times of emergencies, BA is not able to accommodate the passengers that faces emergency calls and situations.

The time of fly need to be more flexible that at present one as there is a need to develop a strategy that customers choose the timing from the large schedule to their ease. At present there is not as much flexibility.

(c) Speed

The report of BBC showed that Ryanair is doing much better than the BA in terms of cost efficiency in the operational activities. The speed of Ryanair is much less as compared to BA that is taking almost double time to reach the destination where Ryanair is going. This is where BA needs to improve the operations. The firm needs to develop speed through improving the engine quality. For this purpose, an engine should be designed that gives more horsepower to the flights by installing more pistons at extreme ends so that there is light weight of the aircrafts, so the operations are quick, and passengers can reach to their desired destination in time. Moreover, the operations will increase due to this installation as more flights can fly due to less time taken by the actual flights.

(d) Dependability

BA is a moderate airline therefore this is the most crucial factor for them as it need to have a more close and strict monitoring of its operations activities. There are high number of strikes from its employees that results in the delays and cancellation of flights. It needs to develop a channel of increasing the dependability by means of introducing the system that encourages smooth and swift operations. The management should follow the performance management model to ensure employees are satisfied so that there are no more strikes which will ultimately improve the dependability factor. Moreover, the operations can be improved by making a proper strategy of transforming the information to the audience and passengers online. The information about the weather already at hand and planning the flights accordingly will increase consumer satisfaction as well the dependability factor will increase more.

(e) Price:

Despite the tough competition it is still able to maintain its reputation as well low price strategies in place for a long time now. There is no second thought that it has sustain its strong dominance along with the tough competitor Ryanair in the EU market, but company still has to focus on the price in more depth. The premium loyalty card is not helping the cause as much as it should have been so there is a need of a new pricing strategy based on the discounting passengers that travel with the airline more than 3 times an year. This will surely attract the business class and frequent travellers. As it is a moderate airline that is offering reasonable quality and speed to the passengers, if the introduction of the price reduction for the frequent travellers or the coupon of free flight once a year to a client that has travelled more frequently will also improve the profit as customers will love to avail the services that offer something like this. There is a loyalty program but there is a need of revising the pricing strategy as membership is something different form the price it is offering. The price should b offered with coining it up with the bundle of benefit of a lucky draw for a frequent flyer to have an opportunity of flying for free to a desired destination. This means that not exactly free, a customer will only pay for the aviation charges imposed by the government while organisation charges will not be made against the customer. This will increase customer satisfaction as will increase the market worth as more people would love to fly with it.

If BA consider these recommendations, there is a likely possibility that the working efficiency will improve more and more effectiveness will occur in the operations management.

Limitations of Research:

Despite, the fact that this research includes primary and secondary data source extractions, a proper statistical tool, pilot study, and appropriate sample set still there are certain limitations to this study. All the major considerations mentioned in this paragraph were to avoid the personal biases and maintain high level of accuracy in the research process. Still, one of the biggest limitations of this research is that time was limited to complete this research. It was completed in a very short time which means there is alive and valid possibility that some of the key information could have been missed out by the researcher. If there would have been more time, the longitudinal study would have been done that would have ensured that the changing trends in the micro and macro domain would have been studied in more depth to check the effectiveness of the operations management in both short and long terms.

Second limitation of this research is that it has still a sample size of only 165 participants so the results cannot be highly generalized. If the sample size was in between 300 to 1000 respondents, there would have been more generalizability in the results. And the respondents were selected on convenience sampling method, which is less accurate due to nature of non-probability sampling. The findings would have been more appropriate if stratified sampling was done to extracts the data from the surveys. A probability sampling would have brought more accuracy in the results.

The interviews were only done with the members of the selected case study. It would have been better if the comparison was made by interviewing the rival airline members and their perspective was also included. Moreover, experts of the operations management and marketing people should have been involved in the interviews to ensure that there are more accurate findings and unbiased answers from the panel.

Future Implications for the upcoming Researchers:

The future researchers should consider longitudinal research design so that findings are more accurate and adequate one. Researchers should also try to include the focus group interviews with more experts from the field as face-to-face interviews are not as effective in nature as focus group interviews. Moreover, the size of sample should be enlarged and instead of non-probability sampling, probability sampling should be used by the researchers, and it should combine the

stratified sampling with the snow ball sampling technique, that means that the questionnaire is roll to people that comes in the cluster and area based sampling should be used to have more precise results. The researchers should also opt for the usage of the social networks like GOOGLED OC, MONKEY SURVEY, FACEBOOK, TWITTER, etcetera for online surveys so that there are more opinions included in the research survey.

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Appendix A- Questionnaire:**Effectiveness of five performance indicator in gaining competitive advantage:****Operations Management Survey**

Thank you for taking part in survey.

The objective of this research is to find the effectiveness of five performance indicators (quality, price, dependability, flexibility, and speed) at British Airways' operation management to gaining competitive advantage.

Your survey responses will be kept strictly confidential and data from investigation will only be reported in the aggregate.

We thank you for being a part of this research and appreciate your Valuable time and support.

Q1. Is competitive advantage the most important factor for airline industry?

| | | | | |
|----------------|-----------|----------|------------------|---------------|
| Very Important | Important | Not sure | Not so Important | Not Important |
|----------------|-----------|----------|------------------|---------------|

Q2. Do you think Quality is the most important performance indicator for BA in attaining the competitive advantage?

Very Satisfactory _____ x _____ x _____ x _____ x _____ Very dissatisfactory
1 2 3 4 5

Q3. How would you rate the Speed as a performance indicator for the BA in its recent services?

Very Satisfactory _____ x _____ x _____ x _____ x _____ Very dissatisfactory
1 2 3 4 5

Q4. In BA's recent performances, how has been the dependability as factor in achieving the competitive advantage?

Very Satisfactory _____ x _____ x _____ x _____ x _____ Very dissatisfactory
1 2 3 4 5

Q5. How has been BA in maintaining flexibility in its operation management activities to avail competitive edge?

Very Satisfactory _____ x _____ x _____ x _____ x _____ Very dissatisfactory
1 2 3 4 5

Q6. How has been the Price as a key factor for BA's operations management in attaining competitive advantage?

Very Satisfactory _____ x _____ x _____ x _____ x _____ Very dissatisfactory
1 2 3 4 5

Q7. Do you think there exist a strong relation between BA's Operations management and Competitive Advantage?

Strongly Agree _____ x _____ x _____ x _____ x _____ Strongly disagree
1 2 3 4 5

Appendix B – Statistical Concepts**(i) One sample t-Test for population mean**

Step 0. Conditions for the one-sample t-test to be valid for testing one population mean: Data follows a normal distribution or the sample size is large.

Step 1. Set up the hypotheses as one of:

| | | |
|------------------------|------------------------|------------------------|
| One-sided | One-sided | Two-sided |
| $H_0 : \mu \geq \mu_0$ | $H_0 : \mu \leq \mu_0$ | $H_0 : \mu = \mu_0$ |
| $H_1 : \mu < \mu_0$ | $H_1 : \mu > \mu_0$ | $H_1 : \mu \neq \mu_0$ |

Step 2. Decide on the significance level,

Step 3. Compute the value of the test statistic with the one sample t-test:

$$t = \frac{\bar{x} - \mu_0}{\frac{s}{\sqrt{n}}}$$

Step 4. Find the appropriate critical values for the tests using the t-table. Write down clearly the rejection region for the problem. Alternatively, compute the p-value if you are using the p-value approach.

Step 5. Check to see if the value of the test statistic falls in the rejection region. If it does, then reject H_0 (and conclude H_a). If it does not fall in the rejection region, do not reject H_0 . Alternatively, compare the p-value to α if you are using the p-value approach. If $p\text{-value} < \alpha$, reject H_0 (and conclude H_a). If the $p\text{-value} > \alpha$, do not reject H_0 .

Step 6. State the conclusion in words.

Z-Test for one population proportion

Using the same concept as above, z-test for one population proportion is applied as follows:

Null hypothesis: $H_0: p = p_0$

Test statistic:

$$z = \frac{\hat{p} - p_0}{\sqrt{p_0(1-p_0)/n}}$$

| | | | | | | | | | | | |
|---|---|---|----------------|---|-----------|---|----------|---|------------------|---|-------------------|
| 1 | Is competitive advantage the most important factor for airline industry? | a | Very Important | b | Important | c | Not sure | D | Not so Important | e | Not Important |
| 2 | Do you think Quality is the most important performance indicator for BA in attaining the competitive advantage? | a | 1 | b | 2 | c | 3 | d | 4 | e | 5 |
| 3 | How would you rate the Speed as a performance indicator for the BA in its recent services? | a | 1 | b | 2 | c | 3 | D | 4 | e | 5 |
| 4 | In BA's recent performances, how has been the dependability as factor in achieving the competitive advantage? | a | 1 | b | 2 | c | 3 | D | 4 | e | 5 |
| 5 | How has been BA in maintaining flexibility in its operation management activities to avail competitive edge? | a | 1 | b | 2 | c | 3 | D | 4 | e | 5 |
| 6 | How has been the Price as a key factor for BA's operations management in attaining competitive advantage? | a | 1 | b | 2 | c | 3 | D | 4 | e | 5 |
| 7 | Do you think there exist a strong relation between BA's Operations management and Competitive Advantage? | a | Strongly Agree | b | Agree | c | Not Sure | D | Disagree | | Strongly Disagree |

| | | |
|-----------|------------------|-------------------------|
| H_a | p-value | Rejection region |
| $p = p_0$ | $2P(Z \geq z)$ | $ z \geq z_{\alpha/2}$ |
| $p > p_0$ | $P(Z \geq z)$ | $z \geq z_{\alpha}$ |
| $p < p_0$ | $P(Z \leq z)$ | $z \leq -z_{\alpha}$ |

The tests are valid if $np_0 \geq 10$ and $n(1-p_0) \geq 10$.

(ii) Coding scheme:

The data is gathered through the help of questionnaire and on the basis of experts from the particular field were interviewed so that accurate and reliable sources are included in this research. The data is gathered from the respondents through questionnaire was sorted out on the bases of coding scheme. The individual 30 responses were distributed on chart by signing each answer one particular name and the similar results were put together in one block. This is how the information was distributed and divided on the basis on responses. Once the data was distributed and channelized. We use a technique of z-test (Chi-test or t-test) if was considered that 0.05 was a value that was hypothesised and if the overall value generated from the coded result is higher than 0.05, it will be categorised as alternative hypothesis and therefore, the null hypothesis will be rejected. Similarly if the final value is less than 0.05 that the null hypothesis will be considered and alternative hypothesis will be rejected. The formula to calculate the results and findings are mention above.

Appendix B (iii)**Interview with the Manager:**

Question 1: Do you think that BA's current operations management activities have potential to increase the share in the competitive market?

Question 2: In attaining the competitive advantage, what has been the role of operations management?

Question 3: In your Opinion what is most important factor for BA in gaining competitive edge?

Question 4: Do you think that performance indicators are helping BA in practical implication of plans in attaining competitive advantage?

Question 5: Arranging in order of importance, how would you put them? (Cost, Speed, Flexibility, dependability, and quality).

Question 6: Do you think BA is leading in the overall competition? If yes, close competitors?

Question 7: What is the ONE factor you think BA needs to focus on?

Telephonic Interview:

In developing strategies, how five performance indicators contribute?

Since recently it is declared as the safest airline, what is most important factor that now BA's management is trying to focus on?

Considering day-to-day operations, Does BA take in account the five performance objectives?