

CHAPTER THREE: METHODOLOGY

3.1 *Introduction*

According to the study conducted by Krippendorff (2012), methodology is one of the important chapters of the entire research that includes all the technical and methodical details of the study, which are necessary for the researcher in order to achieve the research aim and objectives and address the research problem. On the whole, in this research, the researcher determined to evaluate the relationship between rating and expectations, perceived performance, and satisfaction, particularly in the airline industry of Taiwan. According to the requirement of the study, this chapter includes the particular methods and techniques which are essential for the researcher to be completed.

In this regard, the researcher retrieves or collects the essential data by using the informational sources such as, internet sources, journals, articles, public, and private libraries. This chapter includes the essential components of the research methodology, which are essential for the research to be accomplished including research approach, research design, research philosophy, research strategy, sampling method and technique, data collection method and technique, sample size, research limitations, and ethical consideration.

3.2 *Research Philosophy*

As stated by Orlikowski (2010:23), research philosophy is a conception or faith in accordance with the approach in which the information or data concerning the phenomenon of research have to be used, collected, and evaluated. In addition, research philosophy is a technique to recognise the source, nature, and enhancement of knowledge and information.

Particularly in this research, research philosophy involves awareness and structuring the suppositions and perceptions. Research philosophy could also be referred as research paradigm that outlines the structure of the study and supports the theoretical and conceptual framework of the study. Furthermore, research philosophy or paradigm also outlines the research methods and strategies that have been undertaken by the researcher for the research to be conducted.

As stated by Creswell (2012), there are three types of research philosophy that can be used by the researcher for addressing the research aim and objectives including interpretivism, realism, and positivism. Interpretivism is an approach to the social science that opposes the positivism that encompasses the natural science (Goldkuhl 2012:135). Predominantly, the collection of thought and beliefs in philosophy of law and the contemporary jurisprudence are referred as interpretivism. Interpretivism philosophy uses the understanding of an individual in terms of different thoughts and ideas that develops from the ideas, thoughts and findings of the researcher.

In contrast, the philosophy of realism is a supposition that independent to the perceptions and uses the facets of reality, linguistic practices, beliefs, and conceptual schemes of an individual. In the words of Easton (2010:118), realism applies the principles and philosophies of real world in the study and a situation in which the researcher or individual is experienced and practiced the reality of the real world. In this regard, realism belongs to the conception of past and future, moral categories and thoughts, material world, numerical entities, universals, and material world. Researchers who profess realism claim that there is an association among reasoning and reality representation.

Lastly Taylor and Medina (2013:1) discussed their study about positivism that it is an approach that can be used by the researcher as it relates the observations and interpretations

acquired from the personal experience and practice with the research strategy and research design in order to address the research problem. Positivism usually used by the researcher if he or she is determined to conduct the research quantitatively as it uses the numerical entities and statistical analysis in order to interpret the research findings and results. According to nature of the study that is quantitative research design, positivism research philosophy has been used by the researcher as it uses empirical observation in order to approve or disapprove the research hypotheses.

3.3 Research Approach

According to the study conducted by Maxwell (2012), research approaches can be classified into two types including inductive and deductive approach. Inductive approach could be defined as an argumentative method founded on fundamental laws and rules that are used and followed all over the globe. In contrast, Jahn (2011:745) stated that deductive approach applied in the study on the basis of past experiences, models and theories in order to construct a new theory or hypothesis according to the requirement of the existing study. Moreover, deductive research approach converts the general observations and interpretations to the specific as per the nature of the study.

As discussed in the previous chapter, the existing research includes the prior literature reviews, and past conducted studies in order to support the generated hypothesis, thus the researcher is determined to use the deductive research approach in order to test and approve or disapprove the research hypotheses.

3.4 Research Design

Research design is also an important aspect of research methodology that acquires proper attention when commencing a research study. The research methodology is founded on the research design as it uses the concepts and ideas to collect the essential information and data in a particular way. In the words of Creswell (2013), there are three types of research designs that can be used by the researcher in order to address the research problem including qualitative, quantitative, and mixed method research design. Turner III (2010:754) stated that qualitative research design involves the responses of the respondents or participants that have been engaged in the research study. These responses are supported by the personal feelings, experience, perception, and thoughts.

On the other hand, quantitative research design uses statistical approaches and techniques in order to analyse the research findings and to test the generated hypothesis according to the gathered data through respondents (Williams 2011). Last of all, the mixed method approach is a combination of both quantitative and qualitative research design. As per the nature of the study, the researcher has used the quantitative research design in the current study in order to address the research problem. Since the quantitative research design uses the numerical entities and statistical techniques in order to interpret the results and research findings, so the researcher is determined to use this research design in the present study.

3.5 Research Strategy

Research strategy is another significant approach or strategy that are important for the research to be accomplished. Research strategy provides convenience and accessibility in accordance with the execution of entire research study. In order to address the research problem

and questions, research strategy provides continuous flow of research to the researcher that is crucial for maintaining the constant flow of research (Saunders 2011). As per the nature of the research design that is purely quantitative, the researcher has used the close-ended questionnaires for acquiring the essential information and data from the respondents and participants of the study. Questionnaires were filled by the 100 respondents or customers of both EVA and United Airlines. The interpretations and results which are obtained from these 100 questionnaires have been mentioned in the appendix. In addition to it, the researcher has used SPSS as a statistical tool in order to convert the numeric entities of Likert's scale into words. For this purpose, the researcher has used the correlation methods as it investigates the relationship of independent variable with the dependent variable or variables.

3.6 Data Collection Method

Data collection method is an essential approach that makes the study effective in order to address the research problem. According to Smith (2015), there are two methods of data collection including primary and secondary method. Primary data collection refers to the collection of new and first-hand information or data by using the research instruments such as, questionnaires, personal experiences of respondents, and interviews.

On the other hand, secondary data collection refers to the collection of second-hand information by means of prior literature review and past conducted studies that have been directed in the same manner as the chosen subject of the study. In this current study, the researcher has used both types of data collection method. In this regard, the researcher has collected the primary data by means of questionnaires, while the secondary data has been obtained by means of past conducted studies and past literatures.

3.7 Sampling Method and Technique

As stated by Baltar and Brunet (2012:57) sampling methods provide the guidance to the researcher in order to gather information or data in accordance to the nature and requirement of the study. There are two methods of sampling that can be used by the researcher including probability and non-probability sampling technique.

Probability sampling technique refers to the selection of respondents on the basis of a principle that all participants have an equal opportunity to be included in the sample size. Probability is further classified into three types including cluster sampling, simple random sampling, and random sampling (Sadler et al. 2010:369). On contrary, non-probability sampling refers to a sampling method where the samples are collected in a process that does not give the equal chance to the participant to be included in the research population. It is further classified into four types including judgemental sampling, snowball sampling, convenience sampling, and quota sampling (Baker et al. 2013). Convenience sampling technique refers to the sampling technique where participants are selected on the basis of their convenience and closeness to the researcher.

Quota sampling technique works on the basis of traits and character of participants that are crucial for the research to be accomplished. Snowball sampling methods involves the referrals of the participants that have formerly been engaged with the research. Last but not least, judgemental sampling method usually used by the researcher as it selects the participants on the basis of personal judgements and perceptions (Robinson 2014:25).

In this current study, the researcher has employed the non-probability sampling technique, among which the researcher has undertaken the convenience sampling technique as it selects the respondents on the basis of easiness and convenience of the researcher

3.8 Research Hypotheses

Hypotheses are essential constituents of the methodology which are important for the research as its acceptance or rejection depicts the significance of the study. According to the nature of the study, following hypotheses has been constructed by the researcher:

H₁: Rating has significant impact on customers' expectation

H₀: Rating has no significant impact on customers' expectation

H₂: Rating has significant impact on customers' perceived performance

H₀: Rating has no significant impact on customers' perceived performance

H₃: Rating has significant impact on customers' satisfaction

H₀: Rating has no significant impact on customers' satisfaction

3.9 Sample Size

By using the convenience sampling technique, 100 customers of EVA Air and United Airlines has been used as a sample size of the study in order to evaluate the relationship between rating and expectations, perceived performance, and satisfaction.

3.10 Data Analysis Technique

In this particular research, the Likert's scale questionnaires have been used by the researcher in order to acquire the data the participants or respondents. In Likert's scale questionnaires, the data is present in the form of numbers, and researcher needs more interpretations and elucidations in order to achieve the aim and objectives of the research. These interpretations could be achieved by using the appropriate technique to covert the numbers of

Likert scale into the words. For this purpose, the research has used the SPSS technique for the conversion of numerical data into explanations in detail by means of figures and charts.

3.11 *Research Limitations*

There is one limitation for this data collection design. As this research model is designed, the main purpose of the first part of the questionnaire is to understand the relationships between rating, expectations and flight experience. In terms of expectations, it is better to survey passengers before on-board flights, and ask them to answer the rest of the questionnaire when their journey ends. In this case, the data would be more accurate to understand how those factors influence each other. However, this is impossible to accomplish due to the difficulty of tracking the same passengers to finish the questionnaire. This would require more time and support to acquire data. Unfortunately, the data collection applied in this research is not able to compare the same passengers before departure and after arrival. Although it might influence the credibility of results, expectations usually are the same for frequent flyers.

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