

The Effect of Strategies, Work System, and Management System on the Quality of Low Cost Airline Service

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The primary objectives of this research were to investigate factors affecting the quality of low cost airline service. Specifically, this research focuses on the three main groups of factors including the airlines' strategies, their work system, and their management system. It also investigated the relationship between these three groups of factors. This study was carried out between 1 October 2017- 30 September 2018 In order to achieve its objectives, a quantitative research approach was employed in this study. The data were drawn from 400 passengers who had experiences in flying with low cost airlines. They were selected by simple random sampling. A questionnaire was used to collect the data and the data were then analyzed with multiple linear regression. The research results showed that all the above-mentioned factors had an effect on the quality of service provided by low cost airlines. The important factors included: convenience; process, modern technologies; politeness of the staff members; and reliability. Moreover, it was also found that the airlines' strategies, their work system, and their management system had relationships and effect on each other, namely airlines' strategies depended on their work system, and the airlines' management system depended on their strategies and work system.

Keywords: Strategies; Work system, Management system, Low cost airlines.

Field of research: Management

1. Research Background and Significances

Low cost airline or no-frills airlines (also known as discount or budget airlines) is one type of airline business offered to passengers as an alternative to full-service airlines. Specifically, it refers to an airline operated with a lower cost structure and without most of the traditional services, facilities and comforts (i.e. food and beverage service, free checked-in service, and entertainment service). Therefore its fare is cheaper than that of full-service airlines. As the low cost airlines do not provide traditional services and facilities, they may charge passengers for extras if customers would like to have such services and facilities.

Low-cost airlines can be considered as a business strategy or model that an airline business uses to compete with competitors. This main characteristic of this business model is to reduce the operating costs of the business such as costs of staff uniforms and food and beverage costs. Through reduced costs, the airlines can offer their air fare with very low price. At the present time, they also sell their tickets in advance via internet which enables them to manage their flight schedule more effectively and could avoid the risk of empty or partly empty flight.

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The introduction of the low-cost airlines offers various advantages for both the airlines themselves and the passengers. These advantages include; first, more passengers being encouraged to travel with an airline as a result of lower airfare. Low airfare is an important motivator that make people decide to travel with a low-cost airline. Apart from that a low-cost airline often offers more routings and flight schedules and this makes it more convenient for passengers to travel to any places. Second, this business model helps the airline business to extend its markets or customer base to cover those in the lower to medium class or those with lower or medium income who normally have limited budget for travelling. It can also extend its customer base to cover those passengers in the neighboring countries and in Southeast Asia region. Third, with lower operating cost, an airline can offer more frequent flight schedules which can increase its revenue. Forth, with more frequent flights and lower airfare, passengers can travel more often. For example, previously they might be able to travel once a year, but with a low-cost airline, they can travel more than once a year. More frequent travelling and more passengers generates more total revenue for the country. Fifth, this business model can also benefit other related businesses including tour operators, travel agencies, and hotels because these businesses can combine the low airfare with other tourism elements and offer as a package to offer to tourists with lower price. In other words, it also helps extend the customer base for these business. Sixth, the low-cost airline represents an attractive alternative in transportation service for passengers. It causes high competition not only in the airline business, but also in other forms of transportation business such as motorcoach, rental cars, and trains. Such high competition will lead these businesses to compete with each other by continuously improving their services in order to attract passengers. Lastly, with high competition in the airline business and other forms of transportation business, these businesses are likely to compete with each other by offer services with lower price to passengers. Therefore, passengers not only have more choices to travel, but they can also enjoy low fare.

As the main characteristics of the low-cost airline is low airfare, passengers may concern about the quality of service and other related factors of business such as its strategies, its work system, and its management system because generally, in passengers' mind, these factors often depends on its price. This means that if the price is low, the quality of these factors are likely to be low as well. Therefore, this study aimed to investigate factors affecting the quality of low cost airline service. Specifically, this research focuses on the three main groups of factors including the airlines' strategies, their work systems, and their management system. It also investigated the relationship between these three groups of factors.

2. The Objectives of the Research

This research aimed to study in the influences of the following factors on the quality of low cost airlines services and the relationship between these factors. Specifically, it aims:

2.1 To study the effect of the low-cost airlines' work systems (i.e. service process, modern technology, fast system), on the airlines' strategies (i.e. convenience, fair price, and good image).

2.2 To examine the effect of the low-cost airlines' strategies (i.e. convenience, fair price, and good image) and their work system (.e. service process, modern technology, fast system) on the airlines' management system (i.e. politeness of personnel, the airlines' credibility, and equality).

2.3 To investigate the effect of the three factors including the airlines' work system, their strategies, and their management system on the quality of their service.

3. The Research Hypotheses

Based on the above-mentioned objectives, the following research hypotheses were formed.

3.1 The low-cost airlines' work systems (i.e. service process, modern technology, fast system) have an effect on the airlines' strategies (i.e. convenience, fair price, and good image).

3.2 The low-cost airlines' strategies (i.e. convenience, fair price, and good image) and their work system (i.e. service process, modern technology, and fast system) have an effect on the airlines' management system (i.e. politeness of personnel, the airlines' credibility, and equality).

3.3 The three factors including the airlines' work system, their strategies, and their management system have an effect on the quality of their service.

4. Review of Literature

4.1 Efficiency

In the operation of any businesses, entrepreneurs usually emphasize on the efficiency and effectiveness of their operational system and these aspects as their goals. According to the principles of business operation, working with efficiency consists of three main factors which are: (1) focusing on economy which includes cost saving, resources saving and time saving; (2) ability to complete tasks on time; (3) emphasis of quality of the products/services by using good quality of input, process, and output (Investopedia, 2016)

Moreover, the 'term' efficiency also refers to good strategies, appropriate work systems, and quality management system acquired by the organizations. These factors have a big role in the success of the business. It is argued that the keys to success for any organizations is that the organization should use the least resources and operate economically by using as least time, resources, and labor as possible. It also has to consider whether their operation will be worthwhile or not. One of good examples of the efficient operation in the airline business is American West Airlines which improved its system in allocating the passenger seats in the cabin by starting allocating from the rear of the cabin to the front of the cabin and from the outer seats to the inner seats. This practice helps the airline to speed up time for boarding passengers onto the aircraft (Menkes & Briel, 2016). It is found from related study that more efficient management plays an important factor in increasing the number of passengers, the business's marketing share, and routings (Chen, 2016; Somjai, 2017).

4.2 Strategies

In the field of economic, strategies refer to approaches or guidelines that are determined in order to mobilize and allocate resources of the country to achieve its goals, both in short and long terms. In terms of business, it can also refer to the creation or development of approaches for mobilizing and allocating limited of the organization's resources effectively with the aim to use them to achieve the goals.

Generally, the definitions of strategies covers two main aspects which are goals or objectives to be achieve and determined approaches or guidelines for practice. The development of strategies for the organizations consists of two main steps including the formation of strategies and the implementation of these strategies.

The formation of strategies is a continuous process including: (1) the evaluation of strengths and weaknesses of the organizations; (2) the analysis of the business environment with the aim to determine the opportunities and treats of the organizations; (3) the evaluation of attitudes, values, and reliability on the organizations' leaders toward their organizations; (4) the awareness of the social and law limitations.

As for the implementation of the strategies, it will depend on the efficient of the organizations' management system such as the mobilization and allocation of the resources with the aim to achieve the organizations' goals. For example, in the case of the low-cost airlines, the strategies in reducing operation costs can help the airlines to compete with other airlines by offering low airfare (Malighetti, Paleari, & Redondi, 2016). In determining and implementing the organizations' strategies, there are four factors to be considered which are: (1) the determination of driving forces; (2) the development of the business concept; (3) the determination of the organizations' area of excellence; and (4) the determination of the important issues (Robert, 1997).

4.3 Management system

As the low-cost airlines have to offers the air tickets that cost lower than other standard airlines to the passengers, they have to lower their operation cost such as costs of equipment and facilities, and costs of food and beverage. Apart from that they have to sell their tickets in advance via internet, instead of using the agencies. This advance selling enables them to manage the flight schedule and the change the aircraft to be suitable to the number of the passengers in each flight. With these natures of the low-cost airlines, they need good management system to help them plan and manage the services to meet the demand of the target customers. For example, it requires a management system to help them allocate seats for the passenger (i.e. considering assigning the seats near an exit to strong passengers) (The Nation Academies Press, 2016). Good management system has to consist of the followings factors: (1) the process can be repeated which means that similar tasks can be completed by using the same practice or standard of practice; (2) the process can be checked for any deficiencies or errors. This means that if there is any error occurred, we can check and find the cause of error easily and that cause of error can be improved easily; (3) the process can be evaluated for its efficiency; and (4) the process can be easily understood with few or no doubt or confusion. It also means that the process can be easily communicated to users with clear understanding; and (5) it needs to be up-to-date and consistent with working environment (Organization Designation, 2016).

4.4 Management

Management refers to the operation that aims for the individuals in the organization to work together in order to achieve the organizations' goals. Good management needs various factors including good planning, organization management, selection of personnel to work for the organization, direction and ordering, and organization control. In any meetings of the organizations, it there is good management system, it can save times and budgets to the operation of the business (Oxford Abstracts, 2016),

Additionally, management can also refer to planning and using resources or the organizations including personnel, budget, technology, and environment most effectively. Management consists of significant process, namely, searching for existing knowledge, creating and searching for new knowledge, filing knowledge systematically, processing

and scrutinizing knowledge, sharing knowledge, and using such knowledge for the highest benefits of the organization.

5. Research Methodology

In order to achieve the research objectives, this study employed a quantitative research approach. This research approach is appropriate for the investigation of casual relationships between factors which is consistent with the objectives of this study. The research was carried out for over one year between 1 October 2017 and 30 September 2018.

The population of this research were individuals who had experiences in travelling with a low-cost airline. The sample of the study was selected by simple random sampling. As a result, 400 individuals were selected.

As for the data collection, a self-administered questionnaire was designed by the researchers and used to collect the data. The researchers distributed the questionnaires by themselves at the airport because it was a place where passengers of the low-cost airlines could be met easily. In terms of the data analysis, the multiple linear regression was used to analyze the relationship between factors being investigated.

6. The Research Findings

6.1 The Effect of the Low-Cost Airlines' Work Systems on their Strategies

Table 1 shows the relationship between the airlines' work systems on their strategies. The aspects of the airlines' work system being investigated included service process, modern technology, fast system and the aspects of the airlines' strategies being studied included convenience, fair price, and good image. The results showed that all aspects of the airlines' work systems had an effect on the airlines' strategies in all aspects. This can be explained by saying that if the service process, modern technology and fast system were high, all the aspects of the airlines' strategies would be high as well. On the contrary, if the aspects of the airlines' work systems were low, the aspects of the airlines' strategies were also low as well.

Table 1: The Effect of the Low-Cost Airlines' Work Systems on their Strategies
(N= 400)

Independent variables	Beta	t	Sig.
Service process	.274	5.668	.000
Modern technology	.151	3.182	.002
Fast system	.444	10.445	.000
$R^2 = .578$, $SEE = .970$, $F = 180.507$, $Sig. \text{ Of } F = .000$			

6.2 The Effect of the Low-Cost Airlines' Strategies on their Management System

Table 2 showed the relationship between the airlines' strategies on their management system. The aspects of the airlines' strategies to be studied included convenience, fair price, and good image, whereas the aspects of the airlines' management

system being studied were politeness of personnel, the airlines' credibility, and equality. It was found that all the aspects of the airlines' strategies including had an effect on all the aspects of their management system. This means that if the aspects of convenience, fair price, and good image were high, all the aspects of the airlines' management system were also high. On the other hand, if all of the aspects of the airlines' strategies were low, the aspects of their management system were also low.

When adding the aspects of the airlines' work system into consideration, it was found that two aspects of the airlines' strategies including convenience and good image, and the other two aspects of the airlines' work system including service process and modern technology had an effect on the airlines' management system. This means that if the aspects of convenience, good image, service process, and modern technology were higher, the airlines' management system were likely to be higher as well. On the other hand, if these aspects of the airlines' strategies and their work system were low, the airlines' management system were also low as well. However, it was also found the two factors that had no effect on the airlines' management system were fair price and fast system.

Table 2: The Effect of the Low-Cost Airlines' Strategies on their Management System (N= 400)

Independent variable	Standard regression co-efficiency	
	Model 1	Model 2
Convenience	.549***	.252***
Fair price	.158***	-.022
Good image	.199***	.252***
Service process		.152***
Modern technology		.404***
Fast system		.014
	R	.774
	R ²	.599
	SEE	1.062
	F	197.118
		.855
		.731
		.872
		178.388

Remarks: * = p<.05, ** = p<.01, *** = p<.001

6.3 Factors Effecting the Quality of the Airline Services

Table 3 showed the results of the analysis of the three factors including the airlines' work systems, their strategies, and their management system on the quality of the airline services. First, it looked at the effect of the airlines' strategies including convenience, fair price, and good image and found that only the aspects of the convenience, and good image had an effect on the quality of the airline service. This means that if these two aspects were high, the quality of the airline service would be higher as well and if they were low, the quality of the airline service would be low. The study also revealed that the aspects of fair price had no effect on the quality of the airline service.

When adding the three aspects of the airlines' work systems into consideration, it was found that two aspects of the airlines' strategies including convenience and good

image and two aspects of the airlines' work system including modern technology and fast system had an effect of the quality of the airline service. This means that if these aspects had a relationship with the quality of the airline service in the same direction. In other words, if these aspects of the airlines' strategies, and their work systems were high, the quality of the airline service was likely to be high as well and if these aspects were low, the quality of the airline service would be low. In addition, the study found that fair price and service process had no effect of the quality of the airline service.

Lastly, when adding the three aspects of the airlines' management system including politeness of personnel, the airlines' credibility, and equality into the analysis, the statistics showed that one aspect of the airlines' strategies which was convenience, two aspects of the airlines' work system including service process and modern technology and the other two aspects of the airlines' management system including politeness of personnel and the airlines' credibility had an effect on the quality of the airline service. All of these aspects had a relationship with the quality of the airline service in the same direction which means that if these aspects were high, the quality of the airline service were also high, on the other hand, if these aspects were low, the quality of the airline service were also low. The study found that the aspects including fair price, good image, fast system, and equality had no effect on the quality of the airline service.

Table 3 Factors Effecting the Quality of the Airline Services (N= 400)

Independent variable	Standard regression co-efficiency		
	Model 1	Model 2	Model 3
Convenience	.681***	.402***	.327***
Fair price	.071	.024	.055
Good image	.108**	.117**	.059
Service process		-.126	-.163***
Modern technology		.453***	.373***
Fast system		.092*	.026
Politeness of personnel			.129*
Airlines' credibility			.177***
Equality			.015
R	.779	.836	.848
R ²	.607	.700	.718
SEE	1.086	.954	.927
F	203.634	152.520	110.567

Remark: * = p<.05, ** = p<.01, *** = p<.001

7. Discussion

The results of the hypotheses testing showed that for the first hypothesis which assumed that the airlines' work systems (i.e. work process, modern technology, and fast system) had an effect on the airlines' strategies (i.e. convenience, fair price, and good image), the result showed that this assumption was true.

For the second hypothesis which assumed that the airlines' strategies (i.e. convenience, fair price, and good image) and their work system (.e. work process, modern technology, fast system) had an effect on the airlines' management system (i.e. politeness of personnel, the airlines' credibility, and equality), this hypothesis was partly true because it was found that not all the aspects of the airlines' strategies and their work system had an influence of the quality of the airline service. Fair price and fast system were found to have no effect on this.

Lastly, for the testing of the third hypothesis which assumes that all of aspects of the three factors including the airlines' work system, their strategies, and their management system have an effect on the quality of their service. The results showed that this hypothesis was partly true because two aspects of each of these factors had an effect on the quality of the airline service. Specifically, fair price, fast system, and equality were found to have no effect on the quality of the airline service.

8. Suggestions

This study provided suggestions both in terms of the determination of the airline business's policy and the contribution to knowledge.

8.1 The determination of the airline business' policy

This study found that the aspects of the airlines' work system, their strategies, and their management system including convenience, service process, modern technology, politeness of personnel, and the airlines' credibility played an important role in enhancing the efficient or quality of the airline service. Therefore, the low-cost airlines should focus on the improvement of these aspects on an on-going basis and included them in the policy.

8.2 Contribution to knowledge

The research results showed that although the aspects of the airlines' work system, their strategies, and their management system including convenience, service process, modern technology, politeness of personnel, and the airlines' credibility has an effect on the quality of the airline business, their effect was not sufficiently high. This means that there might be other factors that had an effect on the quality of the airline service. Therefore, there should be more studies on the factors that had an effect on this such as the power of marketing and promotion strategies, atmosphere and environment of the service, and the size of the aircraft.

References

- Anon, Read "Maintaining U.S. Leadership in Aeronautics: Breakthrough Technologies to Meet Future Air and Space Transportation Needs and Goals" at NAP.edu. *National Academies Press: OpenBook*. Available at: <https://www.nap.edu/read/6293/chapter/6> [Accessed December 9, 2016].
- Business Dictionary, What is low cost strategy? Definition and meaning. *BusinessDictionary.com*. Available at: <http://www.businessdictionary.com/definition/low-cost-strategy.html> [Accessed 7 December, 2016].

- Haris Papoutsakis (2015) 'Towards a global market in a knowledge-dominated economy', *Journal of Knowledge Management Practice*, (), pp. [Online]. Available at: <http://www.tlinc.com> (Accessed: May 10, 2015).
- Investopedia, 2015. Production Efficiency. *Investopedia*. Available at: <https://www.investopedia.com/video/play/production-efficiency/> [Accessed December 7, 2016].
- Malighetti, P., Paleari, S. & Redondi, R., 2009. Pricing strategies of low-cost airlines: The Ryanair case study. *Journal of Air Transport Management*, 15(4), pp.195–203.
- Menkes H. L. Van Den Briel et al., 2005. America West Airlines Develops Efficient Boarding Strategies. *Interfaces*, 35(3), pp.191–201.
- Organization Designation, 1969. Humanrevod.wordpress.com. Humanrevod.wordpress.com: *Human Revolution Organization Designation* / ปฏิวัติ... Available at: <https://www.easycounter.com/report/humanrevod.wordpress.com> [Accessed November 15, 2016].
- Oxford Abstracts, Oxford Abstracts. *Oxford Abstracts*. Available at: <http://www.oxfordabstracts.com/> [Accessed March 21, 2018].
- Robert, M (1997) *Strategy pure and simple II: how winning companies dominate their competitors*, 1 edn., New York: McGraw Hill.
- Shuang-Ying, C., Bo, Y. & Xiao-Wo, T., 2006. A Research of Competitive Situation and Strategy of Air Transport Opening between China and USA. *2006 International Conference on Management Science and Engineering*.
- Somjai, S, 2017, "Advantages and Disadvantages of Outsourcing", *The Business and Management Review*, 9(1), 157-160.