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COMPETITIVE ADVANTAGES OF INTERNATIONAL AIRLINE ALLIANCES: A CRITICAL REVIEW

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Abstract

Over the past several decades, airlines have formed and participated in international alliances to seek competitive advantages. However, it is still unclear whether airlines obtain substantial competitive advantages through an international alliance and how to measure the competitive advantages of alliances and airlines. This study presents a critical literature review as a contribution to comprehensive and novel empirical researches in the future.

Keywords: Competitive Advantage; Airline Alliance; Airline

1. Introduction

In recent years, competition between firms have evolved from 'firm versus firm competition' to 'group versus group competition' such as supply chains and strategic alliances (Gomes-Casseres, 2003; Morrish & Hamilton, 2002; Ireland et al., 2002; Whipple & Frankel, 2000). Firms try to ensure competitive advantages by forming strategic alliances (Barney, 2011). Therefore, in recent decades, strategic alliances have been formed across various industries (Gomes-Casseres, 2003; Ireland et al., 2002; Hannegan & Mulvey, 1995).

In particular, the airline industry is one that most frequently forms strategic alliances along with the pharmaceutical and chemical, automation, and computer industries (Min & Joo, 2016; Gomes-Casseres, 2003; Morrish & Hamilton 2002; Evans, 2001). Environmental changes around the airline industry such as deregulation, privatization, globalization and so forth have occurred (Wang, 2014; Oum et al., 2004). These environmental changes make airlines choose strategic alliances to derive competitive advantages. Hence, airline alliance formations have increased (Iatrou & Alamdari, 2005;

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Oum et al., 2004).

If an airline fails to participate in an international alliance, it means facing isolation and embracing competitive disadvantage (Iatrou & Alamdari, 2005; Morrish &Hamilton, 2002). For airlines, affiliation with an international alliance is a significant business strategy (Ireland et al., 2002), a way of brand-differentiating against low-cost carriers (LCC), and a tool of raising customer satisfaction (Wang, 2014). Also, an international alliance is a good substitute for M&A as the latter is a riskier strategic option for airlines (Min & Joo, 2016; Ireland et al., 2002).

In this manner, airlines form and participate in international alliances pursuing various competitive advantages. However, despite an increase of these tendencies, there are discussions about whether airlines can obtain substantial competitive advantages through international alliance. Also, research on an agreed and comprehensive framework for measuring international airline alliances' competitive advantages is still scarce (Wang, 2014; Gomes-Casseres, 2003; Morrish & Hamilton, 2002).

This study is a critical review that suggests how international airline alliances' competitive advantages can be measured.

2. Competitive Advantage

A competitive advantage is a capability of a firm to create more economic value than competitors (Peteraf & Barney, 2013) and "the degree to which a firm has exploited opportunities, neutralized threats and reduced costs" (Newbert, 2008, p. 752).

Scholars have pointed out that it is necessary to distinguish between a corporate competitive advantage and corporate performance (Sigalas et al., 2013; Powell, 2001). Sigalas et al. (2013) argued that a competitive advantage means competitiveness above average in the same industry, while a superb performance of a firm indicates a performance above average in the same industry. Newbert (2008) suggests that there is a positive correlation between obtaining a competitive advantage and a firm's outstanding performance. In other words, a firm's performance is a parameter measuring a competitive advantage so that if a firm has a competitive advantage, it comes out in a firm's performance (Newbert, 2008; O'Shannassy, 2008; Powell, 2001).

Porter (1980) argues that firms have to add greater value to their products and services than competitors and make their supply chains support their general strategy. Also, he pointed out that firms do not "stuck in the middle", firms establishing and maintaining a clear generic position in their product market can obtain competitive advantages. On the other hand, a resource-based view, learning theory, and core competence theory explain that a sustainable competitive advantage is created by a value-creating strategy that cannot be imitated by competitors (Barney, 1991). The value and rareness of resource holding firms are crucial factors of a sustainable competitive advantage (O'Shannassy, 2008).

To obtain a corporate competitive advantage, firms choose vertical integration and diversification strategies, mergers & acquisitions (M&A), and strategic alliances as firm-level strategies (Barney, 2011). In particular, competition among firms has been changed from firm-level competition to group-level competition (Gomes-Casseres, 2003; Morrish & Hamilton, 2002; Ireland et al., 2002; Whipple & Frankel, 2000) as a tool ensuring a competitive advantage, strategic alliances have attracted attention. In the next section, this research discusses international airline alliances.

3. International Airline Alliance

An international airline alliance is any cooperative arrangement between two or more international airlines to improve their competitive advantages.

The airline industry is recognized as a representative industry which frequently forms international alliances (Min & Joo, 2016; Gomes-Casseres, 2003; Morrish & Hamilton, 2002; Evans, 2001). Airlines pursue the expansion of route networks, but regulations related to market access by foreign firms exist. In this case, to expand their market, airlines come to participate in international alliances (Iatrou & Alamdari, 2005). Also, deregulation in the US in 1978 and privatization in the European airline service industry in 1986 gave freedom to airlines in the operation of aviation routes and airfares. These changes stimulated the reformation of airlines' business strategies. At that time, forming an international alliance was an increasingly common substantial strategy along with niche strategies such as a cheap fare policy, a hub and spoke network system, and M&A (Min & Joo, 2016).

Airline alliances can be classified into two categories according to (i) type of routes and (ii) type of governance. A parallel alliance indicates an airline alliance in which alliance members' routes overlap, while a complementary alliance means a non-route overlapped alliance (Morrish & Hamilton, 2002). Furthermore, horizontal alliances are long-term and equal collaborative agreements among alliance members, while vertical alliances are non-equal agreements among alliance members (Oum et al., 2004). In many cases, international airline alliances presume horizontal agreements (Oum et al., 2004). The horizontal alliance type is better than others when it comes to allowing airlines to deal with environmental changes. Besides, horizontal alliances ensure "high resource heterogeneity" (Teng & Das, 2008). In general, international airline alliances members have equal rights. Also, alliance headquarters support both individual members and the whole alliance, and have a coordinating function among members.

In past years, three major international airline alliances; Star Alliance, SkyTeam, and oneworld have significantly affected the airline service industry (Douglas & Tan, 2017; Wang, 2014; Iatrou & Alamdari, 2005). Currently, their combined market shares are over 60% (Statista, 2017). Table 1 and Table 2 indicate the members and provide overviews of these three major international airline alliances.

Table 1 Three international airline alliances members

Star Alliance (26)		SkyTeam (19)		oneworld (13)
AEGIAN Airlines	Ethiopian	Aeroflot	Garuda Indonesia	American Airlines
AIR CANADA	EVA AIR	Aerolíneas Argentinas	Kenya Airways	British Airways
AIR CHINA	LOT POLISH AIRLINES	Aeroméxico	KLM	Cathay Pacific
AIR INDIA	Lufthansa	Air Europa	Korean Air	Finnair
AIR NEW ZEALAND	SAS (Scandinavian Airlines)	Air France	Middle East Airlines	Iberia
ANA (All Nippon Airways)	Shenzhen Airlines	Alitalia	Saudia	Japan Airlines
ASIANA AIRLINES	SINGAPORE AIRLINES	China Airlines	TAROM	LATAM
Austrian Airlines	SOUTH AFRICAN AIRWAYS	China Eastern Airlines	Vietnam Airlines	Malaysia Airlines
Avianca	Swiss International Air Lines	Czech Airlines	Xiamen Air	Qantas
Brussels Airlines	TAP AIR PORTUGAL	Delta Air Lines		Qatar Airways
CopaAirlines	THAI Airways			Royal Jordanian
CROATIA AIRLINES	TURKISH AIRLINES			S7 Airlines
EGYPTAIR	UNITED Airlines			SriLankan Airlines

Source: oneworld (2019), SkyTeam (2019), Star Alliance (2019)

Table 2 Overviews of three international airline alliances

	Star Alliance	SkyTeam	oneworld
Members	26	19	13
Destinations	1,300	1,150	1,000
Countries	195	175	160 +
Daily departures	19,000	14,500	12,738
Annual passengers (Million)	762 +	630 +	527.9 +
Market share	23.5 %	19.2%	16.4%
Launch date	1997	2000	1998
Headquarters	Frankfurt	Amsterdam	New York
Revenue（US $）	194 billion $	156 billion $	132 billion $

Source: oneworld (2019), SkyTeam (2019), Star Alliance (2019)

4. International Airline Alliance and Competitive Advantage

Scholars have pointed out that various competitive advantages can be gained for airlines through an international alliance. These include the following: increased revenue (Iatrou & Alamdari, 2005; Oum et al., 2004; Hannegan & Mulvey, 1995), effects of increased capital input (Button et al., 1998), cost cutting effects of sharing human resources and facilities (Douglas & Tan, 2017; Wang, 2014; Iatrou & Alamdari, 2005; Oum et al., 2004; Button et al., 1998), minimization of transaction costs (Ireland et al., 2002), economies of scale (Oum et al., 2004), economies of scope (Wang, 2014; Oum et al., 2004), increase of passengers (Hannegan & Mulvey, 1995) and traffic (Iatrou & Alamdari, 2005; Morrish & Hamilton, 2002; Hannegan & Mulvey, 1995), load factors (Iatrou & Alamdari, 2005; Morrish & Hamilton, 2002; Hannegan & Mulvey, 1995), expansion of route network (Douglas & Tan, 2017; Wang, 2014; Iatrou & Alamdari, 2005), and circumvention of legal barriers and regulations (Morrish & Hamilton, 2002; Button et al., 1998).

In addition, as advantages for customers, declining airfares, reduced aviation times and layover times, optimized connections, sharing of alliance lounges and integrated mileages among members (Wang, 2014), and flexed flight schedules (Hannegan & Mulvey, 1995) are pointed out.

These merits of international airline alliance ultimately link to competitive advantages of airlines (Douglas & Tan, 2017; Min & Joo, 2016; Oum et al., 2004; Ireland et al., 2002; Whipple & Frankel, 2000). Through an international alliance, airlines can deal with environmental uncertainties, share information, and minimize transaction costs (Ireland et al., 2002). Airlines also obtain resources related to sustainable competitive advantages such as skills that could not be acquired before, technologies, capital, and market access (Whipple & Frankel, 2000). Moreover, according to Oum et al. (2004), airlines can share airport facilities, ground staff, and baggage claim services with alliance members, and they can decrease inputs to enjoy economic value (Oum et al., 2004).

6. Discussion, and Conclusions: Measuring competitive advantages

There has been an extensive discussion about financial performance as the measuring parameter of alliance competitive advantage. Barney (2011) suggested that simple accounting methods such as return on assets (ROA), return on equity (ROE), or Tobin's q can be useful tools measuring competitive advantages because a competitive advantage indicates a relatively high economic value created by a firm compared to competitors. In addition, revenue (Iatrou & Alamdari, 2005; Hannegan & Mulvey, 1995), operating revenue (Min & Joo, 2016; Assaf & Josiassen, 2011), and revenue passenger kilometers (RPKs) (Min & Joo, 2016) are general financial indicators in the airline industry.

However, there are shortcomings when adopting simple accounting methods as indicators of international airline alliance's competitive advantages. To begin with, these indicators do not reflect the airline industry's characteristics such as the volume of traffic. Also, by using only these simple accounting methods, airlines' invisible assets linked to competitive advantages would be ignored. Therefore, scholars have focussed on traffic (Hannegan & Mulvey, 1995), passengers (Min & Joo, 2016; Iatrou & Alamdari, 2005; Hannegan & Mulvey, 1995), and changes of load factor (Assaf & Josiassen, 2011; Iatrou & Alamdari, 2005). Iatrou and Alamdari (2005) reported that after airlines participate in international alliances, top managers recognize significant effects related to traffic, revenues, and load factors on their airlines.

Still, little research has been done up to now on a comprehensive framework for measuring international airline alliances' competitive advantages (Wang, 2014; Gomes-Casseres, 2003; Morrish & Hamilton, 2002). In future research, in addition to traditional evaluation measurement in this industry, it is necessary to carry out more empirical research based on measurements of customer's satisfaction, degree of service quality (e.g., Min & Joo, 2016; Cornwell et al., 1990) and alliance members' unique values.

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