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Collaborative strategy: an analysis of the changing world of international airline alliances

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Abstract

The notion of companies collaborating for their mutual benefit through the formation of strategic alliances has gained credibility in recent years and international airlines have been very active in utilising this form of strategic development. This paper explores the available literature on alliances, explores the underlying motivations for their formation and presents a conceptualisation of the stages involved from their inception to the measurement of success or failure. The paper concludes that the benefits on the part of the airlines appear clear but the potential benefits to be derived by consumers are less obvious. Nevertheless, given the regulatory and legal constraints preventing other forms of development airline alliances, it is argued, are not a transitory feature of the international airline industry but long-term inter-organisational forms and key future trends in their development are presented.

Keywords: Strategic alliances; Collaborative strategy; International airlines

1. Introduction

In comparing corporate strategic management with national foreign policies Ohmae (1989a) observed that "*companies are just beginning to learn what nations have always known: in a complex, uncertain world filled with dangerous opponents, it is best not to go it alone*". The concept of collaborating with partners through the formation of strategic alliances has long been a feature of business strategy (James, 1992), but the scale of attention devoted to these alliances since the late-1980s has been unprecedented (Hamel et al., 1989; Kanter, 1989; Badaracco, 1991).

Strategic alliances were traditionally viewed as a means by which multinational companies could enter markets, which were otherwise restricted in their entry possibilities (Glaister & Buckley, 1996). In recent years however, they have been used by businesses to achieve a wider set of purposes and companies have voluntarily formed alliances as a strategic option in response to changing business circumstances. Strategic alliance formation has been evident in many industries including pharmaceuticals, vehicle manufacture and chemicals, and the international airline represents one of the most active sectors for this form of development. The underlying reasons motivating companies to form such alliances are varied and complex, some are generic, whilst others are concerned with the characteristics and structure of the global airline industry itself.

The aims of this paper in relation to the international airline industry are to:

- to review the strategic alliance literature;
- examine the role and scope of strategic alliances in the context of strategic management decision making;
- analyse the underlying motivations for the formation of strategic alliances;
- to produce a conceptualisation of strategic alliances which models the stages in their development;
- examine the benefits to be derived from strategic alliances and to question to whom such benefits are attributable; and,
- consider possible future trends in airline strategic alliance formation.

For the purposes of this paper then the concept of a strategic alliance is defined as

A particular 'horizontal' form of inter-organisational relationship in which two or more organisations

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collaborate, without the formation of a separate independent organisation, in order to achieve one or more common strategic objectives.

2. Methodology

The methodology utilised in writing this paper has been to conduct a wide-ranging review of secondary sources. A literature survey was conducted which included the identification of a number of texts specifically devoted to the study of strategic alliances or other forms of collaborative strategy and this was supplemented by a search through the key strategic management, marketing and general management journals. These included the Strategic Management Journal, Long Range Planning, European Management Review, the Journal of Management Studies, Harvard Business Review, Academy of Management Journal, the Journal of International Business Studies, the Journal of Marketing, the Journal of Strategic Marketing, the Journal of General Management, and the McKinsey Quarterly.

The management journals and texts yielded a great deal of generic material on the subject of strategic alliances which was supplemented by a survey of the leading tourism, transportation and airline journals which yielded a more limited contextual literature relating to strategic alliances in the international airline industry. The contextual literature search included the journals: Tourism Management, Annals of Tourism Research, the Journal of Travel Research, the Journal of Air Transport Management, the Journal of Travel and Tourism Marketing, Progress in Tourism and Hospitality Research, Transportation Research, the Journal of Transportation Management, and the monthly magazine, Airline Business.

3. A survey of the strategic alliance literature

The growing use of collaborative agreements, in their various forms has been accompanied by a developing literature on the subject area. A number of texts (Harrigan, 1985; Kanter, 1989; Lorange & Roos, 1992; Campbell & Luchs, 1992; Faulkner, 1995; Mockler, 1999) and journal articles having placed the study of strategic alliances in the context of strategic management issues. Table 1 categorises the range of managerial journal articles that have been published. The growing managerial literature focuses on issues relating to alliance formation, critical success factors, acquiring knowledge and skills, reasons for alliance failure and partner selection.

Furthermore, as Dev et al. (1996) point out strategic alliances have been viewed from a number of theoretical perspectives including: transaction cost economics (Kay, 1993); network relationships (Jarillo, 1988); game theory (Parkhe, 1993); developmental processes (Ring and Van de Ven, 1994); ethics (Gundlach & Murphy, 1993); and, firm internationalisation (Beamish & Banks, 1987).

A number of studies (Dev, Klein, & Fisher, 1996; Selin, 1993; Garnham, 1996; Go & Hedges, 1995) have considered the growth of these collaborative arrangements in the tourism field in general and a growing number of analyses have concentrated on the airline industry in particular. These include studies by Gialloreto (1989), Humphreys (1994), Gallagher (1994), Hannegan and Mulvey (1995), Dresner and Windle (1996), Bennett (1997), Alamadari and Morell (1997), French (1997), Mockler and Carnevali (1997), Oum and Park (1997), Rhoades and Lush (1997).

4. International airline strategic alliances

Many alliances in the airline industry have emerged, alliances have failed and new alliances have been forged and the speed of change has sometimes been bewildering for observers. The nature of competition in the world airline industry has, since its early days, been different from all other industries. A new exciting, prestigious and potentially dangerous form of transport required public reassurances as to safety standards and operating procedures that necessitated governmental involvement from an early stage, and provided an environment which implicitly encouraged collaborative working practices. The platform for the panoply of airline alliances that exist today in the world's airline industry was created by the 1944 Chicago Convention, which established the regulatory framework for the post-war industry. The International Civil Aviation Organisation (ICAO), a United Nations agency established in 1944, and the International Air Transport Association (IATA) established in 1945, pooled resources and information and harmonised the regulation of the industry (Donne, 1995). Under the auspices of IATA, on a global scale, a tradition of co-operation between airlines was built up and on individual routes co-operation commonly went as far as revenue pooling agreements between the carriers operating a route (Civil Aviation Authority, 1995). International airlines attempted to ensure the efficient transfer of connecting passengers, baggage, and cargo through 'interline' agreements. Such agreements provide for the mutual acceptance by the participating airlines of passenger tickets, baggage checks and cargo documents, as well as establishing uniform procedures in these areas (Hannegan & Mulvey, 1995).

In recent years a shift has occurred towards collaborative arrangements that are broader in their scope and purpose, some involving cross-shareholdings and others confined to marketing and technical co-operation of various kinds. These alliances commonly include code-sharing agreements by which at airlines sell the seats of

Table 1
Managerial perspectives of strategic alliances

Strategic alliance: managerial perspective	Studies
How and why they are formed	Ohmae (1989a); Kanter (1994); McGee, Dowling, and Megginson (1995); Glaister and Buckley (1996)
Critical success factors	Hamel, Doz, and Prahalad (1989); Lorange and Roos (1991); Slowinski (1992); Cravens, Shipp, and Cravens (1993); Bucklin and Sengupta (1993); Pekar and Allio (1994); Stafford (1994); Stiles (1994); Stiles (1995); Beamish and Inkpen (1995); Shaughnessy (1995); Newman and Chaharbaghi (1996); Reuer (1998)
Reasons for failure	Walters, Peters, and Dess (1994); Medcof (1997); Bruner and Spekman (1998)
Acquiring knowledge, competencies and technology transfer between partners	Hamel (1991); Doz (1996); Mowery, Oxley, and Silverman (1996); Inkpen (1998); Khanna, Gulati, and Nhria (1998); Ring and Van de Ven (1994)
Partner selection	Forrest (1992); Bronder and Pritzl (1992); Brouthers, Brouthers, and Wilkinson (1995); Mason (1993); Dull, Mohn, and Noren (1995); Medcof (1997)

Table 2
Airline alliances in the global airline industry 1994–1999[a]

	1994	1995	1996	1997	1998	1999	% Change 1999/1994
Number of alliances	280	324	389	363	502	513	+ 183
with equity stakes	58	58	62	54	56	53	− 8.6
non-equity alliances	222	266	327	309	446	460	+ 207.2
New alliances	—	50	71	72	121	26	
Number of airlines	136	153	159	177	196	204	+ 150.0

[a]Source: Airline Business (1999). Reproduced with permission of the Editor of Flight International.

a flight of other carriers partly or wholly under their own name (Beyhoff, 1995). In practice, code sharing is most commonly used to show the connecting flights of two airlines as occurring on one airline and in displaying flights in such a way airlines are responding to consumers' preferences for booking connecting flights on the same airline (Hannegan & Mulvey, 1995). A key advantage of code sharing is the enhanced position it provides on computer reservation systems (CRS). Since most bookings are made from the first screen displayed for a route and flights are listed in strict order (with direct flights followed by flights with intermediate stops, followed by flights with connecting services, followed by other services), the shorter elapsed times of connecting services which share the same code moves them up the CRS listings and thereby provides a powerful purchase incentive (French, 1997).

The most comprehensive data available on international airline alliances published annually by Airline Business indicates, in Table 2 that the number of alliances rose strongly over the period between 1994 and 1999 (Airline Business, 1999).

The number of alliances involving equity participation has remained relatively stable, but the number of airlines involved in these alliances has continued to grow throughout the period. There was a discernible acceleration in the rate of alliance formation during between 1997 and 1998 following a hiatus during the preceding year. Only a minority of alliances entail equity stakes taken by one airline in another and indeed this proportion of such alliances fell slightly in this period. Consolidation amongst the myriad strategic alliances in the international airline industry is well under way. The announcement in early 1998, for instance, that Northwest and Continental were to form an alliance (with Northwest acquiring 14% of Continental's equity), brought together two existing alliance groupings. Table 3 shows the major strategic alliances currently operating. Note all the major groupings include at least one powerful American airline.

5. Conceptualisation of airline strategic alliance formation

Fig. 1 provides a conceptual model of the strategic management processes involved in the formation of strategic alliances in the airline sector. It can be argued that a four-stage process takes place. The process involves firstly, the strategic analysis of the internal organisational and external environmental 'drivers', which act as the underlying motivating reasons for alliance formation. Secondly, alternative strategic options are postulated and evaluated and the option of strategic alliance formation (either with or without equity) participation is chosen. Thirdly, implementation issues have to be

Table 3
Major international airline alliances as at July 1999[a,b]

Alliance members	Date joined	Passenger traffic 1998 RPK Bn	Passenger traffic 1998 world share	Passenger numbers millions	Revenue $ billions
Atlantic excellence/qualifier					
Atlantic excellence					
Austrian Airlines	Jun-96	7.3	0.3%	3.4	1.3
Delta Air Lines	Jun-96	166.3	6.3%	105.4	14.4
Sabena	Jun-96	15.3	0.6%	8.7	2.4
Swissair	Jun-96	28.0	1.1%	11.9	7.8
Sub totals		216.9	8.2%	129.5	25.9
Qualifier					
Air Europe	May 99	5.8	0.2%	0.8	0.2
AOM	Mar 98	8.5	0.3%	2.9	0.6
Austrian Airlines	Mar 98	7.3	0.3%	3.4	1.3
Crossair	Mar 98	2.7	0.1%	4.4	N/a
Lauda Air	Mar 98	2.9	0.1%	0.8	N/a
Sabena	Mar 98	15.3	0.6%	8.7	2.4
Swissair	Mar 98	28.0	1.1%	11.9	7.8
TAP Air Portugal	Mar 98	9.4	0.4%	4.5	0.9
THY Turkish Airlines	Mar 98	13.0	0.5%	9.9	1.4
Sub totals		93.0	3.5%	47.4	14.6
Total		259.3	9.9%	152.8	29.0
Oneworld					
American Airlines	Sep 98	175.2	6.7%	81.4	19.2
British Airways	Sep 98	116.0	4.4%	36.6	14.6
Canadian	Sep 98	26.9	1.0%	8.3	2.1
Cathay Pacific	Sep 98	40.7	1.5%	10.3	3.4
Qantas	Sep 98	56.9	2.2%	16.4	5.2
Sub totals		415.7	15.8%	153.0	30.0
Future members					
Finnair		10.2	0.4%	6.8	1.5
Iberia		32.5	1.2%	21.8	3.6
Lan Chile		8.7	0.3%	4.0	1.1
Total		467.1	17.8%	185.5	36.2
Star alliance					
Air Canada	May 97	37.3	1.4%	15.0	4.0
Lufthansa	May 97	75.4	2.9%	38.5	12.8
SAS	May 97	20.8	0.8%	21.5	5.2
Thai International	May 97	34.4	1.3%	15.6	2.5
United Airlines	May 97	200.4	7.6%	88.6	17.6
Varig	Oct 97	27.1	1.0%	11.0	3.0
Ansett Australia	Mar 99	13.1	0.5%	11.7	2.0
Air New Zealand	Mar 99	19.4	0.7%	6.2	1.7
Sub totals		428.0	16.3%	206.3	48.8
Future members					
All Nippon Airways		54.4	2.1%	42.3	7.1
Singapore Airlines		58.2	2.2%	12.4	2.7
Total		540.6	20.6%	261.0	58.6
Northwest/KLM					
Alitalia	May 99	35.6	1.4%	24.2	5.0
Continental	Jan 99	86.7	3.3%	43.6	8.0
KLM	1989	57.3	2.2%	15.0	22.0
Northwest Airlines	1989	107.4	4.1%	50.5	9.0
Total		287.0	10.9%	133.3	44.0

[a]Notes: RPK—revenue passenger km.
[b]Source: Adapted from Airline Business (1999).
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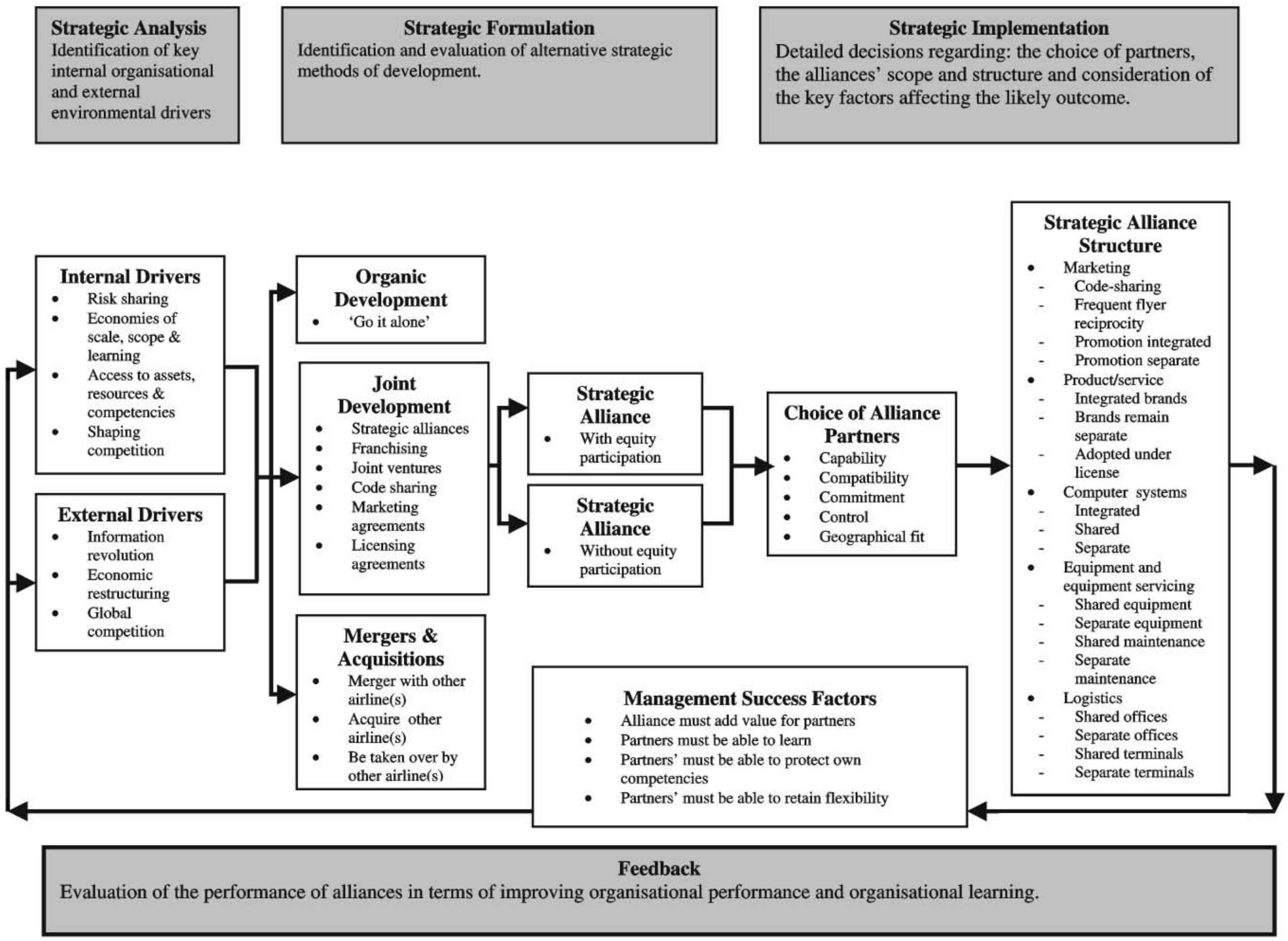


Fig. 1. Conceptualisation of the collaborative strategy process for international airlines.

considered including the choice of appropriate partners and the relating to the structure and scope of the alliance. Finally, the strategic alliance is evaluated against selected criteria purporting to measure the success of the alliance. The evaluation of the alliance is fed back into the analytical phase so that any changes based upon experience can be incorporated.

Each of these stages will be briefly considered in the subsequent sections.

6. Motivations for strategic alliance formation

A number of studies have sought to identify the underlying motivations for the formation of strategic alliances (Lorange & Roos, 1991; Glaister & Buckley, 1996; Bennett, 1997) and it is generally accepted that some types of external drivers need to be present (Faulkner, 1995). The nature of the external drivers will vary between industries but Faulkner identifies seven generic external driving forces. British Airways attempted to introduce a degree of empiricism to the analysis of these external driving forces using scenario-planning techniques to develop strategies for the future given uncertainties in the macro environment (Moyer, 1996). Scenarios representing possible futures were developed which sought to identify the key driving forces shaping the world economy and in turn the airline industry as their starting point. Enormous changes have occurred in technology, education, world trade and finance over the last 50 years with a quickening pace of change. These four forces have combined and manifested themselves in the form of the information revolution, economic restructuring and global competition which represent major environmental shifts making existing strategies vulnerable (Fig. 2).

6.1. External drivers

6.1.1. Information revolution

In the 1960s and 1970s information technologies mainly played a facilitating role in international tourism, not creating mass, standardised and rigidly

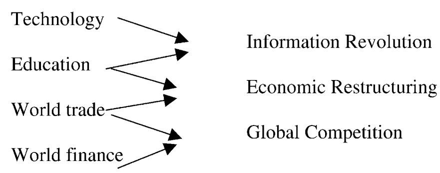


Fig. 2. External driving forces underpinning strategic alliance formation in the airline industry. Source: Moyer (1996).

packaged tourism but merely facilitating its development (Poon, 1993). The US Airline Deregulation Act of 1978 introduced airlines operating in the USA to a new world of competitive threats and opportunities. The key change, whereby price-regulating power was removed from the Civil Aeronautics Board (CAB), enabled airlines to increase the variety of fares offered and the increased frequency by which fares were changed necessitated the extensive development of advanced computer reservations systems (CRS). The CRS systems allow airlines to monitor, manage and control their capacity through yield management and their clients through frequent flyer programmes.

The growth in CRS systems, first in the US, then in Europe and elsewhere, has created a marketing tool of considerable power, given travel agents' preferences for booking flights towards the first to appear on their screens. In the past the airlines that owned the CRSs undoubtedly favoured their own flights (or those of their code sharing partners), but to a significant extent such bias has now been eliminated at least in Europe and North America through codes of conduct. Joint airline (and non-airline) ownership may reduce the chances of CRSs being biased in favour of one particular airline, but the dominance of CRS companies, in particular, markets gives them considerable market power (Hanlon, 1996). Particular CRS systems dominate certain countries and there is a high degree of correlation between the market penetration of particular systems and the involvement of national airlines in their development indicated by European market shares shown in Table 4.

Bias is very difficult to eliminate completely through regulation and codes of conduct and the possibility for discrimination in favour of national airlines clearly continues to exist in many countries and thus remains as powerful incentive to form appropriate alliances (World Tourism Organisation, 1994). Regardless of system bias, however, it is undoubtedly the case that strong consumer preferences are well established. Consumers often favour their national airline or its partners to an extraordinary degree (sometimes with government encouragement). Such a patriotic approach to purchasing, rarely replicated in other industries, drives airlines to form alliances as the only effective means of market entry.

6.2. *Economic restructuring*

Economic restructuring through the philosophy of 'economic disengagement' by governments in many parts of the world, has, over the last two decades, had a major impact on airline industry structure. This philosophy influenced by the widespread adoption of the 'Theory of Contestable Markets' (which advocated the removal of restrictive market entry barriers) from the early 1980s (Baumol, 1982; Baumol et al., 1982; Hanlon, 1996) manifested itself in the forms of deregulation and privatisation. The Chicago Convention of 1944 established the bilateral system of air service agreements (between pairs of national governments), which have since governed international air transport. The international market that developed was characterised by national airlines from each country serving routes, airlines charging the same fares, and often sharing markets and revenues. Some bilateral agreements also stipulate conditions governing responsibility for such matters as ground handling. The terms of the bilateral agreements reflected the negotiating power and current aviation policies of the countries involved and resulting productivity was often low and costs were high (OECD, 1997).

Deregulation of domestic services occurred in the United States in 1978 followed by Canada, the United Kingdom, Australia and New Zealand in the 1980s and the completion of deregulation within the European Union in April 1997. However, parallel liberalisation in international air services has taken place much more slowly (World Tourism Organisation, 1994). Notwithstanding the change that has occurred in some markets, even the liberalised structures are restrictive on market entry. Requirements for designated airlines to be owned by nationals of the states involved are common and airport congestion and slot allocation practices often further impede effective market entry (Doganis, 1991). Evidence is, however, mounting that the removal of bilateral agreements and similar intervention barriers can reduce fares (Levine, 1965; Barrett, 1987).

Another, and linked, aspect of 'economic disengagement' is the worldwide movement towards the privatisation of state owned airlines. However, despite this gradual process many international airlines remain publicly owned or have major government shareholdings. Controls on foreign ownership remain in most markets but some foreign ownership now exists and with planned privatisations this will increase (OECD, 1997).

The European Union's third air transport package (implemented from April 1997), for instance, sets no limit on the stake a Union national or a Union airline can hold in an airline registered in another European Union state. With limited exceptions, however, non-European Union investors cannot hold a majority stake in any European Union airline. In the United States, foreign shareholdings of up to 49% of equity under certain circumstances and

Table 4
CRS market share in European countries[a,b]

Country	Amadeus (% of locations)	Galileo (% of locations)	Sabre (% of locations)	Worldspan (% of locations)
Austria	34.8	60.4	3.1	1.6
Belgium	21.1	30.1	16.0	32.8
Denmark	54.2	14.1	6.9	24.8
Finland	98.1	—	1.7	0.2
France	81.7	4.1	10.1	4.1
Germany	91.6	1.4	4.7	2.3
Greece	—	39.9	34.9	25.2
Hungary	—	97.6	2.4	—
Ireland	—	84.6	6.0	9.4
Italy	—	76.9	17.8	5.3
Luxembourg	57.1	—	42.9	—
Netherlands	—	61.6	10.3	26.8
Norway	74.5	11.2	7.7	6.6
Portugal	6.0	65.5	0.2	28.3
Spain	88.7	5.2	2.6	3.5
Sweden	77.0	—	13.0	10.0
Switzerland	—	87.7	9.9	2.4
UK	0.2	65.6	20.0	14.2

[a]Note: Amadeus—developed by Air France, Lufthansa, Iberia, Sabena. Galileo—developed by British Airways, KLM, Swissair, Austrian, Aer Lingus, Air Portugal, Olympic. Sabre—developed by American Airlines. Worldspan—developed by Delta, Northwest, TWA.
[b]Source: Humphreys (1994).

25% of voting stock is possible, although the US government also imposes an ad hoc control test to determine whether the foreign shareholder would substantially influence decision making irrespective of equity held. Table 5 indicates that the foreign ownership of airlines is very limited.

Liberalisation, privatisation, foreign ownership and transnational mergers will have a major impact upon the future structure of the airline industry but many regulatory and ownership barriers remain in force worldwide (OECD, 1997). As a result alternative methods of strategic development, namely internally generated growth and mergers and acquisitions are often precluded as viable growth strategies for international airlines, and consequently the formation of strategic alliances is, in many cases, the only available form of market entry.

6.3. Global competition

Organisational form has been dramatically influenced by the rise of globalisation (Faulkner, 1995) and it has been argued that success or failure of larger businesses in the future will depend upon their ability to compete effectively globally (Ohmae, 1989a). Certainly many industries in the post-war era have seen a rapid concentration of activity with the emergence of a few dominant companies. Global competition is clearly well advanced in industries such as motor vehicles, pharmaceuticals, soft drinks and more recently financial services, but is a more recent phenomenon in the airline business, having been restricted by regulation, government ownership and consumer preferences.

In an influential article, Levitt (1983) argues that advances in communication and transportation technologies and increased worldwide travel have homogenised world markets with consumers worldwide increasingly demanding the same products and exhibiting similar preferences. In such an era the strategic imperative is for businesses to achieve the economies of scale and scope that the global market affords and produce standardised products sold through a standardised marketing programme. However, such a standardised approach has been increasingly questioned and the need to recognise the differences between local market conditions has been stressed. Bartlett and Ghoshal (1989) for instance, contend that success depends on whether a business can achieve a 'transnational capability' whereby global efficiency and national flexibility are achieved simultaneously.

Airlines are seeking to maximise their 'global reach', in the belief that those that offer a global service (with a competitively credible presence in each of the major air travel markets) will be in the strongest competitive position. The importance of what Ohmae (1989b) terms the 'triad' markets of Japan, North America and Europe is shown in figure shown in Fig. 2. In a global airline context the triad is modified so as to broaden the Japanese leg of the triad to include the wider Asia-Pacific region and for the crucial markets to include not only the constituent markets of the triad but also the flows

Table 5
Foreign ownership of selected airlines[a]

Country	Airline	Stake held by	% Stake	Date first acquired
Europe				
Austria	Austrian	Air France Group	1.5	1988
		All Nippon Airways	9.0	1989
		Swissair	10.0	1988
	Lauda Air	Austrian	35.9	1996
		Lufthansa	20.0	1993
Belgium	Sabena	Swissair	49.5	1995
France	Air Libertè	British Airways	70	1992
Germany	Deutsche BA	British Airways	100	1992
Luxembourg	Luxair	Lufthansa	13.0	1992
Spain	Spanair	SAS	49.0	1986
Switzerland	Swissair	Delta Air Lines	4.5	1989
		Singapore Airlines	2.7	1991
Ukraine	Ukraine Int'l Airlines	Austrian Airlines	14.3	1996
		Swissair	4.1	1996
United Kingdom	British Midland	SAS	40.0	1988
North America				
USA	Delta Airlines	Singapore Airlines	3	1991
		Swissair	3	1989
Canada	Canadian Airlines	American Airlines	33.0	1994
Asia/Pacific				
Australia	Ansett Australia	Air New Zealand	50.0	1996
	Qantas	British Airways	25.0	1993
China	Dragonair	Cathay Pacific	25.5	1990
Malaysia	Malaysia Airlines	Royal Brunei	10.0	Not reported
Singapore	Singapore Airlines	Delta Air Lines	2.7	1991
		Swissair	0.6	1991
Other				
Argentina	Aerolinas Argentinas	Iberia Airlines	10.0	1990
		American Airlines	10	1997
Mauritius	Air Mauritius	Air France	12.8	1975
		Air India	8.8	1975
		British Airways	12.8	1975
Kenya	Kenya Airways	KLM	26.0	1995

[a]Source: Airline Business (1998). Reproduced with permission of the Editor of Flight International.

between them. Thus, globalisation, and particularly developments in the key markets is an important external driver for alliance formation (Fig. 3).

The external driving forces serve as the backdrop to an organisation's decision to form strategic alliances, but firms will only enter into such agreements when their internal circumstances make this the correct strategic move. The major internal drivers identified in the literature are discussed below:

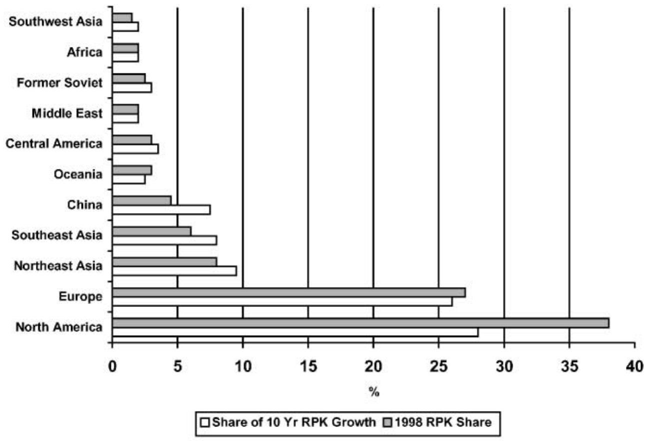
7. Internal drivers

7.1. Risk sharing

Strategic alliances are seen as an attractive mechanism for hedging risk because neither partner bears the full risk and cost of the alliance activity (Porter & Fuller, 1986). The need to spread the costs and risks of innovation has increased as capital requirements for development projects have risen (Mowery, 1988). Developing new or existing routes, for instance, becomes far less risky if the partners operating the routes have firmly entrenched marketing strengths in the two markets at either end of the routes.

7.2. Economies of scale, scope and learning

A prime driver for alliance formation is for airlines to achieve cost economies, which can be categorised as economies of scale, scope and experience (OECD, 1997). Economies of scale exist where the average cost per unit of output declines as the level of output increases (Hanlon, 1996). Empirical evidence reveals little evidence of



RPK – Revenue Passenger Kilometres

Fig. 3. Share of world RPKs* and world RPK growth. Source: Boeing, (1999).

economies of scale however (OECD, 1997), except for the smallest operators (White, 1979) and specific areas such as marketing. Indeed one study of United States domestic aviation suggests possible diseconomies at the largest airlines (Spraggins, 1989). Furthermore, the evidence also suggests that airlines' unit costs do not fall greatly as they expand their networks (Caves et al., 1984) cost savings stemming from attracting more traffic to a given network rather than expanding it to cover more destinations.

The airline industry may lack substantial scale economies, but other economies related to the size and nature of operations exist (OECD, 1997) which help to explain the growing market concentration and the move towards alliances. Economies of scope occur when the cost of producing two (or more) products jointly is less than the cost of producing each one alone. Such economies can be achieved if alliance partners link up their existing networks so that they can provide connecting services for new markets, and where marketing costs can be shared between alliance partners (Hanlon, 1996) which may have strong entrenched positions in certain markets.

For example, the alliance between KLM and Northwest formed in 1989 has had a substantial impact on passenger numbers, market share and both airlines financial performance (Hannegan & Mulvey, 1995). Through the alliance KLM has gained access to Northwest's extensive North American route network based on its Minneapolis, Detroit and Boston hubs, whilst Northwest can advertise that it serves KLM's sizeable international network.

A number of authors (Hamel, 1991; Dunning, 1993; Inkpen, 1998) have suggested that an important motivator to form alliances is the benefit to be derived from economies of learning (or experience). Incumbent suppliers have more information on the market being served and can tailor their services to specific customer needs. New entrants however, would have to commit resources to acquire such information in order to win market share, but alliances allow the information to be gained from existing suppliers.

7.3. *Access to assets, resources and competencies*

Specific resource, skill or competence inadequacy or imbalance can be addressed by collaborating with partners which have a different set of such attributes and can therefore compensate for internal deficiencies. The regulatory framework of 'bilaterals' and landing rights and congestion at certain airports, mean that airlines possessing licenses to operate on a route and slots at congested airports have important and marketable assets that are attractive to alliance partners. Alliances can thus offer relatively easy access to a route (Bennett, 1997) through allowing access to a partner's assets which may have been established over prolonged periods and which may have been protected by government intervention.

7.4. *Shape competition*

Strategic alliances can influence the companies that a firm competes with and the basis for competition (Porter & Fuller, 1986) since they can hinder the abilities of competing firms to retaliate by binding them as allies. Furthermore, current strategic positions may be successfully defended against forces that are too strong for one firm to withstand alone (Glaister & Buckley, 1996). Strategic alliances may, therefore, be used as a defensive ploy to reduce competition since an obvious benefit of strategic alliances is converting a competitor into a partner (Jennings, 1996). Smaller, relatively weak airlines may view alliances as the only viable way in which to compete with larger more sophisticated rivals. The announcement in March 1998 by Air Lanka that it was to sell a 40% stake to Emirates Airlines, for instance, can be viewed as part of a defensive alliance strategy aimed at retaining international competitiveness through allying with a commercially stronger rival.

Alternatively, alliance formation may form part of an offensive strategy, by linking with a rival, for example, in order to put pressure on the profits and market share of a common competitor (Contractor & Lorange, 1988). The proposed alliance between British Airways and American Airlines announced in June 1996 may be seen as such a case since it represents the combining of (arguably) the two strongest airlines on the transatlantic routes. It has therefore attracted widespread criticism from competing airlines and has hitherto failed to win regulatory approval from either the United States or European Union authorities.

8. Formulating options for strategic development

In determining the methods by which strategic development will take place organisational management is faced with making a choice between three basic options:

- to develop organically;
- to merge with or acquire other companies (or be acquired by other companies), or,
- to make some form of collaborative arrangement.

Notwithstanding their rising popularity, international strategic alliances have been viewed as inherently unstable organisational forms. Porter and Fuller (1986) for instance, noted that alliances involve significant costs in terms of co-ordination, reconciling goals with an independent entity, and creating competitors which frequently make alliances transitional rather than stable organisational forms. However, collaborative strategy (or co-operative strategy as it is often termed) is rapidly becoming the counterpart to competitive strategy as a key strategic management tool (Faulkner & Bowman, 1995).

In categorising these collaborative agreements theoretical bases have been advanced, such as Rhoades and Lush (1997) and Contractor and Lorange (1988), but the literature is far from clear as to just what constitutes a 'strategic alliance' and many definitions have emerged (Bennett, 1997; Alamadari & Morell, 1997; French, 1997). There is some consensus that they represent a high level of collaboration between partner organisations and that alliances form a subset of collaborative activity that excludes a number of other forms of inter-organisational co-operation that are not alliances (Glaister & Buckley, 1996). Most writers would exclude buyer–seller relationships, sub-contracting, franchising, and licensing, where to some degree the parties involved may have opposing goals and the relationships are 'vertical' between organisations along the channel of distribution. Most writers would agree that the term strategic alliances applies largely to 'horizontal' relationships between companies engaged in similar types of activity at the same level but the terms 'strategic alliance' and 'joint venture' are often used interchangeably by both academics and managers (Collins & Doorley, 1991).

Bennett (1997), distinguishes between 'tactical' alliances which are loose forms of collaboration which exist to gain marketing benefits and 'strategic' alliances which are longer term, and wider in their scope and level of commitment. Airline tactical alliances frequently focus on code-sharing agreements and feed arrangements at airport hubs. Strategic alliances, whilst incorporating these arrangements, would also include such aspects as shared airport facilities, synchronised scheduling, reciprocity on frequent flyer programmes, freight co-ordination and joint marketing activities. In some cases, strategic alliances also involve a demonstration of commitment by way of equity swaps in which the partner airlines purchase minority equity stakes in each other, thereby having a vested interest in ensuring the financial success of partner airlines.

9. Implementing strategic alliances

9.1. Partner selection

Although several reasons may account for the successful implementation of strategic alliances, several writers stress the importance of partner selection in the process (Bronder & Pritzl, 1992; Mason, 1993; Brouthers & Wilkinson, 1995; Medcof, 1997). In choosing appropriate partners Medcof (1997) proposed four criteria, which closely followed the four criteria proposed in the earlier work of Brouthers and Wilkinson (1995).

The first of the four criteria is that the partner has the capability to carry out its respective role within an alliance. The alliance between British Airways and US Airways in the 1990s foundered in part because of US Airways' financial instability and its failure to provide a comprehensive route network across the USA. The second criterion proposed by Medcof relates to the compatibility of partners both in cultural and operational terms. The longstanding strategic alliance between KLM and Northwest, for instance has encountered cultural problems between the partners. The Dutch managers were reported to be quiet, stay out of the limelight and focus on strong operational expertise whilst the US managers were more inclined to Hollywood lifestyles and a financial engineering approach (Kale & Barnes, 1993). The 'Alcazar' alliance involving SAS, Swissair, Austrian Airlines and KLM in the early 1990s failed because the airlines were involved with various American partners and were affiliated to different CRS systems. Thirdly, partners should be able to demonstrate equal commitment to an alliance through having commensurate levels of risk. This criterion, supported by the findings of Lorange and Roos (1991), relates to the commitment of resources and managerial effort to the alliance on a continuing basis but also to the likelihood that a partner might leave the alliance when unexpected difficulties arise. The fourth partner selection criteria cited by Medcof relates to the control of an alliance and whether it is likely to contribute to alliance effectiveness. In some cases, when strong focused leadership is required, and the interests of all members are closely aligned with those of the leading firm, control dominance by one firm might be desirable. In other circumstances, however, the lead firm might be viewed as opportunistic and the power imbalance leading to the potential for conflict amongst the partners. The key question that needs to be addressed in the assessment of alliance control is the extent to which each partner is able to achieve the strategic objectives they have set themselves in entering into an alliance relationship.

In the context of airline strategic alliances it can be argued that a fifth partner selection criterion, geographical fit, needs to be added to those put forward by Medcof. In forming alliances airlines are careful to avoid forming partnerships with airlines that have overlapping markets, except at the margins. For example, in the Oneworld alliance partners have distinctive geographical strengths in the USA (American Airlines), Europe (British Airways), Canada (Canadian), East Asia (Cathay Pacific) and Australasia (Qantas). In the case of the KLM/Northwest alliance, although having two United States partners in Northwest and Continental, their route networks focus on different hubs: Minneapolis and Detroit (Northwest) and New York and Houston (Continental).

9.2. Alliance structure and scope

Considerable time and effort may be expended in developing the structure and scope of an alliance. The unique nature and operating environment of the airline sector dictates that alliances must be structured around diverse requirements (Mockler, 1999). Determining the structure and scope of an alliance requires detailed consideration of issues across a broad spectrum. Mockler and Carnaveli (1997) group the decisions into five categories relating to: marketing; products and services; computer systems technologies; equipment and equipment servicing and logistics.

10. Evaluation of alliance performance

Evaluating the performance of alliances is complex given the multifaceted objectives of many alliances and the difficulties involved in ascribing financial measures. The situation is often further complicated by the asymmetric performance: one firm achieves its objectives while others fail to do so Gulati (1998). For instance, several studies have reported cases of alliances in which one partner had raced to learn the other's skills while the other partners had no such intentions (Khanna et al., 1988; Hamel et al., 1989). Despite these evident measurement obstacles, several writers have attempted empirical studies of alliance performance primarily through examining the factors leading to the termination of alliance arrangements. These studies, which have not focused directly on the airline industry, have cited various contributory factors in the termination of alliances including: partner asymmetry, the competitive overlap between partners, the presence of other concurrent ties, and the characteristics of the alliance itself such as autonomy of operations and flexibility (Beamish, 1985; Harrigan, 1986; Levinthal & Fichman, 1988; Kogut, 1989). Such an approach to the study of alliance performance is limited by two factors. Firstly, not all alliance terminations can be viewed as failures since in some cases they may have been intended as interim transitional arrangements. Secondly, not all ongoing alliances can necessarily be viewed as being successful, since inertia or high exit costs may provide an explanation for their continuation.

Taking a more pragmatic approach to the evaluation of alliance success, Mockler (1999) suggests that four basic criteria should be fulfilled. Firstly, that the alliance must add value to a participant. That is, it must be worth more to the company to enter into an alliance than to undertake a venture on its own. Secondly, that the participant must be able to learn something from collaborating with partners. Thirdly, a participant must be able to protect its own competencies even while interacting with the alliance over a continuing period of time, and fourthly the firm must retain flexibility, and not be over reliant on any one partner.

11. Discussion

Clearly, the growth of airline strategic alliances is one of the most fundamental developments in the airline industry over recent years. Airlines have rushed to form alliances in the fear of being left behind, and many have later changed their partners as they have become more sophisticated at identifying the potential 'strategic fit' between partners. To some degree alliance formation can be viewed as an inevitable result of the regulatory framework within which the international airline industry operates. Regulatory and legal restrictions often prevent the full ownership of airlines by foreign companies and consequently alliances have been perceived as the only viable market entry mechanism at least in the short to medium term. However, some observers view strategic alliances as inherently unstable and transitory forms of organisation, a 'second-best' solution that is disturbingly likely to break up under commercial pressure. Porter (1990), for instance, has suggested that alliances rarely result in a sustainable competitive advantage being established, whereas Hamel (1991) views them as a race to learn in which the winner will eventually establish dominance in the partnership thereby leading to instability. It can be argued that the benefits of alliances can probably be achieved more completely and effectively through mergers and thus alliances are only really a stopping off point on the way towards full mergers if the lifting of regulatory and legal restrictions were to make them possible.

The airline industry is, indeed, littered with examples of alliances that have been broken up (the alliance between British Airways and US Airways for instance) and planned alliances that failed to materialise. However, the role and characteristics of the strategic alliances have continued to evolve. French (1997) summarises the recent evolution of the alliances. In the late 1980s strategic alliances were seen as a rather crude way in which to grow quickly through the avoidance of bilateral restrictions and some airlines rushed to form alliances in the fear of being left behind. The cyclical slump and heavy losses of the early 1990s turned attention to the efficiency improvements made possible by alliances, and consequently airlines focused more clearly on the strategic logic of the particular partners that had been chosen. The importance of 'strategic fit' thus came to be stressed, i.e. that the proposed partner should have a culture, management style and geographical coverage that were compatible. As a consequence many new alliances were formed and several alliances were terminated as the decade progressed. As Airline Business put it (1997) "*Oddly, the factor which introduces the most instability is the desire for ownership and control of a partner. It used to be fashionable to go out and buy another carrier, and then think about possible synergies to justify the investment, nowadays, market needs are considered first.*"

The commercial logic for airlines to form alliances seems to have been established as a range of external and internal drivers exert pressure. A growing body of research has begun to focus on the role of alliance structure and scope in promoting stable relationships and improved performance (Osborne & Baughn, 1990; Parkhe, 1993; Dussauge & Garrette, 1995; Rhoades & Lush, 1997). Key questions, which have received far less attention from researchers, relate to what these airline alliances will mean for consumers (both internationally and in local markets) and how alliance success can be determined.

Consumers receive several benefits from those alliances that are successful in producing integrated products. Consumers are provided with an enhanced choice of destinations through the marketing of alliance partners' route networks. Schedule co-ordination between partners often produces shorter transfer times between connections, and co-ordination of flight timings can avoid bunching of flight schedules. Additionally, consumers benefit from: one-stop check-in for passengers (although they are taking an onward connecting flight provided by the partner airline); the pooling of frequent flyer programmes; shared airport lounge facilities; ground handling arrangements and the improvement in technical standards brought about through the sharing of expertise.

However, a critical unknown remains: whether consumers are paying higher or lower fares because of the strategic alliances. If carriers collaborate on many of their activities, what incentive is there for competing on price? KLM and Northwest have claimed that their alliance generated new traffic (Hannegan & Mulvey, 1995), but some independent evidence has suggested that fares in non-stop markets offered by European alliance partners have increased somewhat faster than fares in non-alliance non-stop markets (Youssef & Hansen, 1994). In a wide ranging study of airline competition the UK Consumers' Association (1997) pointed to the difficulties involved in the analysis of the effects of competitive forces on consumers with analysis being "*hampered by the extremely complex web of factors regulations and processes that involve the industry. The airline industry is characterised by tight regulation in some areas and dominance of policy by airlines and their industry bodies in others*".

By their very nature alliances often limit supply and thereby would be expected to force up prices. Alliance arrangements often allow one carrier to fly aircraft in a market where two may have been doing so otherwise, possibly leading to higher fares. For example, after an alliance agreement was concluded between the Belgian carrier Sabena and Delta, Delta pulled out of their Brussels to New York flights leaving Sabena to operate the flights alone (Alamadari & Morell, 1997). Several studies (Bania et al., 1989; Joskow et al., 1994; British Midland Airways, 1996) widely discussed in the Consumers' Association report (Consumers Association, 1997) clearly indicate that the effect of limiting the number of carriers on a route (the implied effect of collaboration through alliances) is to raise prices for consumers. It is undoubtedly the case, however, that more research is needed to establish the true effect of alliance activity on fares especially on key market segments such as the transatlantic (Hannegan & Mulvey, 1995; Alamadari & Morell, 1997).

Thus, the fares outlook for consumers in the rush to form alliances is far from clear and two basic scenarios are possible (Alamadari & Morell, 1997). The trend could produce only a few 'mega-carriers' that will dominate the international marketplace, reduce competition, and result in higher fares. Alternatively in the longer run consumers could pay lower fares as: (1) airlines in alliances integrate further and achieve cost efficiencies that could be passed on to the consumer; and (2) competition increases between the various alliances and between alliances and other airlines.

A number of trends relating to strategic airline alliances are discernible:

- The number of airlines involved in alliances has continued to grow. Four key alliances have emerged each headed by one of the major American airlines. The focus in the coming years will be on these alliances adding further airlines so as to fill gaps in their global coverage. For example British Airways established partnership agreements with Lot of Poland, Finnair and Iberia in 1998, which served to strengthen the European and South American coverage of the airline's alliance. Equally second level feeder airlines will be added to the existing alliances;
- It is likely that the four alliances, which are in various stages of development, will remain the main focus for

growth. Substantial new alliances may be difficult to form since the major international players from the 'Triad' countries are all now involved in alliances and new alliances would therefore lack the substantial marketing presence that appears to be necessary to ensure success;

- Airlines from outside the 'Triad' countries will increasingly become involved with the established alliances. To-date, airlines from Africa, South America and parts of Asia have largely been excluded from the major alliances. Although many such airlines are currently operating in highly protected domestic markets, the degree of protection will progressively decrease and these airlines will increasingly want to secure their commercial future through involvement with the major alliance groupings;
- Increasing consumer pressure is likely to be evident. Whilst the case for alliances has robustly been made by the airlines, less attention has been focused on consumers. This has started to change with the intense investigation into the effects of British Airways–American Airlines alliance and possible retrospective investigation of the Star alliance by competition authorities. Increasingly, international regulators will be attempting to ensure that the supposed cost savings (that the airlines argue result from alliance activity) are passed on to consumers and that the dominant positions at hub airports are scaled down so as to allow more 'contestability' of markets;
- Competition between the alliance groupings as entities (as opposed to the individual airlines comprising them) is likely to increase. The alliances will start to look more like 'umbrella' brands with the individual airlines being sub-brands, offering similar service standards and an increasing level of integration between the constituent airlines will be evident. The alliance led by United, for example already seems to be developing along such lines since it has a brand name and identity—'Star', and there has been speculation that the multitude of individual airline representative offices around the world would be consolidated into single Star sales offices.

12. Conclusion

Whilst airlines themselves have been quick to espouse the advantages of strategic alliances (for themselves) the effects upon other parties is less clear and further research is thus required in order to establish the true effects of alliances in the longer term. Key research questions relating to the airline alliances include:

- How can the success (or failure) for the partner airlines of choosing the strategic option of developing alliances be measured?
- What is the true effect of the alliances upon ticket prices particularly in highly regulated parts of the airline market?
- To what extent are economies of scale and scope being achieved through alliances and if such economies are achieved are the benefits being passed on to consumers?
- Has the rise of airline alliances made market access more difficult for smaller or regional airlines?
- To what extent do the alliances seek to use their power to distort competition in local markets through hub domination? and,
- Has the distribution of airline products become unduly concentrated thereby inhibiting the ability of competitive pressures to force down prices?

In the foreseeable future strategic alliances will continue to be a dominant feature of business strategy within the international airline industry. Since major airlines have invested vast resources in terms of management time, capital and operational co-ordination in their creation and regulatory restrictions will often continue to make mergers very difficult to achieve, the need for strategic alliances will continue. British Airways' Annual Report (1997) for instance, stated, "*the focus will be on international routes and building strategic alliances which enables British Airways to stretch its brand*". Those alliances which are able to offer global coverage combined with detailed local knowledge, deliver consistent high quality services, and have a strong reliable brand identity are likely to prosper at the expense of others. Regulatory authorities worldwide, however, will need to remain vigilant in order to ensure that market power does not become over concentrated which could ultimately lead to higher prices for consumers.

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