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Retrospective Cost-Benefit Analyses of Air Pacific and Pacific Forum Line

Jesoni Vitusagavulu
Top Tier Management
Suva, Fiji Islands

Preface

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The lead author of the report was Dr. Roman Grynberg, Deputy Director of Trade and Regional Cooperation at the Commonwealth Secretariat. He was assisted by Michael Hyndman, a cost-benefit analyst contracted by ADB, and Sacha Silva, an economist contracted by the Commonwealth Secretariat. Consultants from PIFS and the Pacific region provided valuable inputs for the report. Bill Costello was the ADB task manager.

The report is published in three volumes. Volume 1 is the Executive Summary. Volume 2 is the main report. Volume 3 contains the working papers commissioned for the report—a series of independent studies assessing potential benefits and costs of implementing a variety of possible regional initiatives. Volume 3 has been printed in hard copy in only limited numbers. However, it is available on the websites of ADB (www.adb.org) and at www.pacificplan.org.

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ABBREVIATIONS AND ACRONYMS

ACP	—	African, Caribbean and Pacific Group
AIDAB	—	Australian International Development Aid Bureau
ANL	—	Australian National Line
BOAC	—	British Overseas Airways Corporation
CCS	—	Chief Containers Service (Swires)
CFTC	—	Commonwealth Fund for Technical Co-operation
CGM	—	Compagnie Generale Maritime
CINL	—	Cook Islands National Line
ECU	—	European Currency Unit
EIB	—	European Investment Bank
ITF	—	International Transport Workers Federation
LCL	—	Less than Container Load
ODA	—	Overseas Development Aid
OECD	—	Organisation for Economic Co-operation and Development
P&O	—	Peninsula and Oriental Shipping Company
PFL	—	Pacific Forum Line
PIPA	—	Pacific Islands Producers Association
RSC	—	Regional Shipping Council
SCONZ	—	Shipping Corporation of New Zealand
SPARTECA	—	South Pacific Regional Trade and Economic Co-operation Agreement
SPEC	—	South Pacific Bureau for Economic Co-operation
SPF	—	South Pacific Forum
TEAL	—	Tasman Empire Airways Limited
UMS	—	Union Maritime Services
UNESCAP	—	United Nations Economic and Social Commission for Asia and the Pacific
UTA	—	United Travel Airways

CONCLUSIONS AND LESSONS LEARNED

After having undertaken the cost-benefit analysis of Air Pacific and Pacific Forum Line (PFL), two regionally operating commercial operations, there are important lessons or conclusions that we can deduce from the stark differences and similarities in the processes or stages that they individually went through towards attaining maturity, viability and stability.

Some of the stark differences that these two organizations went through are described and brief narratives are included to ascertain the consequences of the differing directions that they went through.

1. Air Pacific was a private company that went through the normal commercial process of growth with private equity participation from established international and aviation operators [Qantas, BOAC and TEAL], which fast-tracked its market-penetration capability to operate regionally and in the later years, internationally.

The time, process and procedures that Fiji Airways went through prior to undertaking regional aviation services was more efficient, smoother and short-circuited due to the private nature of the establishment. Fiji Airways did not go through the processes and the procedures that had to be undertaken in establishing regional shipping operations, primarily because the latter was funded through public finances.

As with PFL, preliminary investigations, studies, government / high level committee meetings, vetting consultancies, etc., had to be undertaken prior to firming up a decision to implement the project. It took more than four years to get the project implemented after it was initially introduced.

With Fiji Airways the process included Qantas buying out controlling interest of the company, undertook their first board meeting where they identified the need to have an increasing level capital injection to finance their regional expansion program, identified interests from two international aviation companies and restructured the capital structure of the subject airline, thus accommodating new equity partners and the requisite funding to finance business expansion.

It is clear that initiating a regional organization through a privately driven entity, is much more efficient relative to regional government participation. Furthermore, incorporating corporate entities with financing capabilities to 'jump-start' regional organizations as we saw through the intervention of international investors in Fiji Airways, enabled the airline company to access a sound capital base which easily allowed them to do what they wanted to do regionally.

With PFL, the company was heavily under-capitalized and had it not been for New Zealand and Australian government intervention, the company would have died a natural death.

2. The structure of the market also influences how successful and how long it'll take for a regional organization to be established.

The primary reason why PFL had to struggle to keep afloat during its infant years was due to the immense level of market competition it had been subjected with. In fact, it had to spend immensely to buy a market share and a niche to sustain its operations during these initial years of operations. It took more than a decade, injection of debt capital, renegotiating vessels charter rates, etc., before PFL was able to operate effectively.

The path that Fiji Airways had to go through was much smoother and friendlier primarily because there were no competitors in the regional market for almost two decades. It did not go through the market competition that PFL was subjected to. In fact the regional island countries incubated its regional business that enabled the company to grow and expand internationally.

Whenever a regional entity or organization had to be developed, a market study is essential to enable the subject entity to be rightly capitalized to enable the subject entity to comfortably absorb the costs of buying a market share and at the same time package an outfit that has a specific target market after careful analysis and market segmentation processes have been undertaken.

3. There must always be wisdom and understanding, especially if a regional entity requires regional participation - the long-term benefits and the multiplier effects of regional entities will always flow to all countries of the Pacific.

One of the greatest lessons being learned when disagreement and disunity evaporates amongst regional government leaders is the huge public funds that are wasted when individual countries introduce ventures that directly compete with an established regional venture that they were a party to.

When disgruntled island leaders of Nauru, Samoa, Tonga, Solomon Islands and Vanuatu voted with their feet and walked out of Air Pacific alleging it was a predominantly Fijian airline, they initiated ventures of their own, either individually or in partnership with other international aviation companies.

The outcomes were disastrous, especially during the 1980's – Air Pacific experienced recurrent losses as market share dropped significantly, international airlines that were previously servicing the region withdrew their services due to increasing competition and prevailing supply-side market saturation conditions. All regional airlines incurred significant losses due to excessive carrying capacity as they were serving a much lesser traffic level. All these regional airlines are now defunct. The Pacific islands lost huge supply or traffic grounds as international airlines such as Continental, American Airlines, UTA, etc., discontinued their Pacific services. It was a classical case of a regional 'loose-loose' situation.

Another lesson that can be drawn from this issue pertains to the focused and limited nature of the regional market in the wider global context. It is therefore critical to understand that market participation in the Pacific islands is a focused and narrow market stream when considered in the global context, thus it is imperative that regionalized services or products that are heavily dependent on external drivers to drive the market must always incorporate the reality that attracting a global target market to venture into our world is contextually focused and limited.

On another front, the sustained regional cooperation that existed on the running of PFL enabled the subject company to go through the doldrums, despite the gravity of the exposure the regional company was in. This indicates that regional cooperation should always be pursued continuously if a project dictates that regional countries needs to pool resources to realize the establishment of a common organization.

If individual island countries were uncooperative in and during the PFL saga, the Pacific island states development status – especially with regards to economic and trade, would have been

gravely compromised. The price that would have eventuated would attest to a significant deceleration in the development pace and standard that we would like to have.

4. For any regional entity to compete effectively in the regional and global market place, it requires correct and sound financial backing / capitalization levels and a sound management team. The only variation that can be effected in this modern era pertains to the capacity and capabilities that skilled Pacific islands nationals have in managing these regional institutions with very minimal foreign intervention.

Foreign management or expert intervention should only be sought if the Forum countries do not have the expertise, technology and the depth to undertake what needs to be done.

The similarities inherent within these two regionally owned entities pertain to the fact that they operate regionally and internationally, attained economies of scale status, matured companies and are well established in their respective target markets. It took at least two-decades for both these entities to establish themselves internationally – i.e. to operate viably and continuously sustain their operations indefinitely. The two companies are subjected to international currency trading exposures and are high consumers of imported fuel and fuel derivatives.

In conclusion, regional or common organizations have generated immense benefits for the Pacific island states. The underlying causes are obvious. The economies of scale, market size, economic status, organization size, financial backing, marketing capacity, market penetration capabilities, etc., are significant elements that are inherent in regional entities. This in itself gives strategic competitive advantage relative to an insignificant individualized country-based enterprise, which is not in a dominant position to inherit all the advantages of forming a common organization, let alone its ability to canvass the support of all other forum countries to support its 'self-promoting' initiative. In this context, the power to generate more far-reaching economic benefits to the citizens of the forum is superior when undertaken collectively.

EXECUTIVE SUMMARY

Air Pacific

The establishment of Katafaga Estates Limited, which operated Fiji Airways, eventuated after the pioneering owner and world-renowned airman, Harold Gatty was awarded a lucrative contract by the Colonial government to traffic Royal airmail from Suva to Nadi for onward transmission to London and to the outside world. In this regard, a major influencing factor or rationale for initiating domestic airline services in Fiji Islands emanated after Gatty first sealed the Colonial government's lucrative postal contract - the transporting of passengers to and from Nadi was a transient commercial activity.

After six [6] years of operation, Mr. Gatty suddenly died of a heart attack and Qantas negotiated to purchase the subject airline, which it successfully did in early 1958. Qantas, who had initially distanced itself from Gatty, faced stiff competition in its quest to purchase controlling interest in the airline. All the companies vying for ownership obviously saw enormous future growth potential in the airline.

After having attained controlling interest, Qantas executives immediately took strategic measures to propel Fiji Airways in becoming a regional liner. Qantas executives, with BOAC and TEAL having procured equity interests, identified that to 'fast-track' the airlines expansion into the region they had to 'rightly' capitalize the company, thus in its first board meeting the directors agreed to increase the nominal capital of the company.

Fiji Airways venture into the region was purely undertaken on a commercial basis. The viability of the services were strengthened due to the initial subsidies offered by Colonial powers – Great Britain, Australia and New Zealand to their respective jurisdictions. There was very minimal involvement or intervention by Colonial or island governments in determining the initiation of regional aviation services. Their intervention was only sought for negotiating landing rights and other administrative papers that required processing to formalize scheduled aviation services.

Fiji Island's colonial government participation in the company only eventuated after the airline faced financial difficulties during the mid-1960's due to the Herons capacity restrictions on long haul flights. The other regional countries purchased minority equity interests after the airline required further capital injection to sustain and expand its fleet in servicing the region.

Out of all the Pacific island states, only Fiji Islands had a national airline service prior to the establishment of regional aviation services. Fiji Islands had an edge relative to other island country destinations primarily because market demand for postal airmail services, tourism, public and private sector travel needs were available. Colonized island states had one-off aviation services from their colonial rulers and these services were not consistently effected at national levels.

In essence, the majority of island countries at that time did not have the economic power, market demand, skilled support personnel, support aviation infrastructure and the support services required to undertake national airline services.

The character of the region's aviation industry before the establishment of regional aviation services was monopolistic in nature, where Fiji Airways single handedly controlled Fiji Island's airways. The commercial airline also controlled and monopolized the regional aviation market for at least seventeen [17] years. As with all monopolies, the cost of air travel at that time was simply

expensive. This was not primarily due to the inherent market structure but it had more to do with the precarious operational conditions that the subject airline was being subjected to at that time.

To reflect the airlines regional status, the board of Fiji Airways thought it fit to assume a new name. The airline became known initially as Pacific Islands Airways and after some legal and industrial wrangling, the name Air Pacific, was adopted.

As the airline entered the eighties it was becoming increasingly obvious that the concept of Air Pacific as the sole regional airline, servicing all of the Pacific islands, was no longer a viable proposition. Disgruntled island government shareholders complained that the aviation company was really a Fijian airline and a number of them had voted with their feet and set up their own national airlines. Samoa, Nauru, New Caledonia, Tonga and the Solomon Islands established their own flag carriers. International airlines that were servicing the region were beginning to withdraw due to increasing competition, increasing diseconomies with increasingly supply-side market saturation conditions prevailing – primarily caused by the establishment of the aforementioned Pacific island-state carriers.

Despite their withdrawal from the region, these international aviation players formed airlines that were specifically developed to service the region, which clearly nullified the ‘regional airline’ concept. Air New Zealand teamed up with the Samoan government to form Polynesian Airlines. Melanesian Airlines belonged jointly to Qantas, BOAC and UTA.

It was also during the eighties that Air Pacific encountered repressive operating conditions. The reasons were obvious. The airlines quest to venture into the international aviation markets, through ‘Project America’ was a total disaster and almost brought the company to near collapse. Regional cooperation prevailed when Qantas proposed a management support contract, along with a series of soft loans and other forms of assistance.

Air Pacific has not looked backed since. The company has grown from strength to strength. Gradually, Air Pacific reduced and eliminated its domestic presence and this service is now controlled by two domestic airlines. It has continuously sustained its services to the region and has expanded its routes to Canada, US mainland and Japan and subsequently assumed the status of an international airline.

The company undertook a restructuring of the airline along with a total re-evaluation of the way Air Pacific undertook their business in 1999. This was necessary as it ensured that they [Air Pacific] had the resources to meet their future plans and challenges. The purchase of new generation aircrafts strengthened existing fleet and provided the company with the flexibility to facilitate growth, meet route demands and expand its carrying capacity. The company has ably demonstrated that it has the resilience and structure to weather significant domestic and global impacts due to its ability to adapt to prevailing operating conditions. In fact the sound level of capitalization has enabled the company to meet and adapt to the needs of the market.

In retrospect, we can all learn from what transpired out of a “shoe-string” concern. Fiji Airways was in an enabling position to expand its operations due to subsidies offered by the Colonial powers, critical inputs from foreign technical expertise / management presence and international capital inputs. In servicing Pacific routes, regional support is not an option, primarily because geography dictates otherwise. Providing an aviation infrastructure that supports overall development objectives of the Pacific islands transcends regional boundaries – it required collective inputs – from the public and private sector - to incubate and stabilize this commercial regional institution.

Sustaining Air Pacific operations through regional cooperation has underpinned its 'staying ability' in a dynamic global market. Had it been otherwise, the Pacific economies, especially Fiji Islands, would have not realized the enormous benefits that aviation has injected into its various economic sectors individually and collectively.

Pacific Forum Line

The establishment of PFL eventuated from Pacific leaders' dissatisfaction and anxiety over the regional shipping services provided to its community during a period of economically recessive maritime trading conditions. Pacific shipping became a high-risk venture during the 1960's and foreign-owned shipping companies tried to counteract falling revenue through repeated freight increases and reduced levels of service.

A major factor that hindered and invariably rendered the non-viability of shipping services to the region emanated from the strong New Zealand Maritime Union's dominance on industrial issues and the fact that New Zealand award wages were considerably above international rates and vastly superior to what Island seamen could expect.

During this era, there were political forces at play when newly independent island states sensed the difficulties they had, in voicing and seeing to the implementation of 'Pacific' opinions under the SPC, thus the establishment of the South Pacific Forum during this period of maritime volatility.

On another front, PIPA, the first regional organization driven by Island interests, also arose at a time when the South Pacific nations were gaining independence. PIPA was effective in voicing Pacific concerns relating to trade and its influence facilitated the justification for the establishment of a regional shipping line.

Shipping services then, at the national level, were very minimal and to a great extent – very substandard. This was due to the geographical dispersion of the islands, its smallness and obviously the uneconomical returns generated from servicing these maritime islands dissuaded shippers from servicing them. Even routes that were subsidized were rationalized amongst the sporadic island destinations and this directly impacted on the frequency of voyages that could be undertaken within a specified period.

Some island countries like Tonga, Nauru and later Papua New Guinea established their own shipping companies. These nationally owned entities serviced their countries and other regional countries that they traded with. All these entities made considerable losses and became insolvent. Studies were undertaken to examine the possibility of establishing a regional carrier based on their fleets, but by this time there was a growing support for wider regional involvement and conclusive findings suggested that it was not feasible to take this direction or strategy.

The character of the region's shipping industry before the establishment of a regional line was oligopolistic in nature - a few shipping entities dominated the market. Due to supply constraints, these shipping companies exerted significant levels of control and their modus operandi resembled that of a cartel as their pricing structures and cargo / passenger capacity were similar. To the detriment of Pacific traders and island governments, shipping schedules and cargo differentiation were to a great extent clearly demarcated between these operators.

With barriers to industry entry due to intensive capital requirements coupled with the cost and duration of attaining a market share, the Pacific Forum Line was established. These market

realities were beyond the cogitation of skilled planners at that time – even after numerous studies and processes were involved. The unintended ignorance of market realities manifested itself through cash flow problems, recurrent operating losses and a-near total collapse. This was a challenging period for Forum leaders where boardroom differences and commotions were glaringly publicized. At the end, Pacific diplomacy prevailed and the company was injected with funds predominantly from regional powers – Australia and New Zealand.

A study was again commissioned to reassess PFL's overall operation. The findings by consultants, Touche Ross & Co. and adopted by the Forum leaders' ascertained the following major weaknesses which required urgent redressing. The company was highly undercapitalized, the convoluted routes were not viable and trade going south incurred huge losses. In a nutshell, the regional shipping line was basically trying to be all things to everybody.

Strategic changes were undertaken to make PFL viable once the company was properly capitalized through an EIB loan. Container hiring fees were too high and vessel charter rates were above world market prices. PFL capitalized on purchasing its own containers and the entity successfully renegotiated vessel charter rates with contributing member countries. The company operated initially on a few core / viable routes, increasingly gained a foothold on its market niche, expanded into ancillary parts of the business and till today, have operated without any funding from member countries. The entity had a commercial focus.

The pioneering of a dedicated two-way regional shipping service developed regional markets and provided access to international markets. The strategic importance of shipping to the region spells enormous benefits that have accrued over the years and more so into the ever brighter future. Despite the struggles that the region had to go through to carve its own destiny, the positioning of the island economies in assimilating, adapting, participating and benefiting from transacting within the global economy has far outweighed the costs borne to initiate and operate the regional shipping entity.

I. AIR PACIFIC – A RETROSPECTIVE COST-BENEFIT ANALYSIS

A. The Historical and Financial Rationale for Creating a Regional Airline Service

Katafaga Estates Limited registered the name Fiji Airways that was established as a 'shoestring' concern by Australian and world-renowned airmen, Harold Gatty in 1951 [Addison R., p9, 2002]. This was after Mr. Gatty found himself in a committee which was commissioned by the then Colonial government in Suva to review New Zealand / Fiji Islands air service arrangements and to identify a suitable aircraft to fly domestic routes in the country. The subject committee's recommendation did not convince the Colonial administration and Qantas was approached to offer ideas for an air service in Fiji Islands. The subject committee endorsed Qantas's recommendation for a 14-seater Catalina flying boat but it was rejected in London on cost grounds [Addison R., p10, 2002]. This rejection opened the way for Gatty to undertake his own submission.

Being a member of the Legislative Council in Fiji Islands and having access to inside knowledge of how the Colonial government operated, Gatty was able to ascertain the mail subsidies an airline was expected to receive. Gatty's application was endorsed and this was how it all started [Addison R., p10, 2002].

It can be clearly ascertained from the aforementioned background that a major influencing factor or rationale for initiating domestic airline services in Fiji Islands pertained to the guaranteed income that was forthcoming from transporting Royal mail from Suva to Nadi for onward transmission to London and to other parts of the globe. The transporting of passengers to and from Nadi was a transient activity after Gatty first sealed the Colonial government's lucrative postal contract.

After six [6] years of operation, Mr. Gatty suddenly died of a heart attack and Qantas negotiated to purchase the subject airline from his widow, which it successfully did in early 1958. Due to the huge potential that Fiji Airways had, Qantas faced stiff competition from other bidders in its quest to purchase controlling interest in the company.

Recognizing the need to expand its services regionally, the company restructured its capital. The nominal capital of the company was raised to 5000,000 pounds. A fresh issue of 60,000 pounds for each shareholder was effected, which saw BOAC and TEAL purchase shareholding interests in the company. This injection of fresh capital together with the subsidization of routes offered by the Colonial administrators of the British Western Pacific High Commission, for provision of aviation services to New Hebrides and Solomons provided the impetus to operate regionally. This fresh injection of investment capital enabled the company to procure another airplane and launched its regional services [Addison R., p15, 2002].

It must be highlighted that the subject airlines venture into servicing the region was purely undertaken on a commercial basis – the routes serviced had to be profitable.

However, the Heron airplanes that were used during this period did have a major drawback when used on the longer Pacific routes – capacity. Normally able to carry fifteen passengers on short haul domestic flights, the capacity had to be reduced to eleven passengers on flights to Tonga and only eight to Solomons and Gilberts' services. These restrictions impacted severely on the economics of operating these routes. With losses approaching 70,000 pounds in the 1965 financial year, the Fiji Islands government came to the rescue of Fiji Airways and took up a

quarter share in the subject airline, injecting an additional 120,000 pounds in capital, bringing paid-up capital close to 500,000 pounds [Addison R., pp. 19-20, 2002].

There were subsequent flights to other regional island destinations and subsequent purchase of shares by these regional island countries. The stage was set to move the concept of a truly regional airline, representing the larger Pacific Island countries, to its next phase. In April 1968, Fiji Airways capital was boosted to just under one million pounds with equal contributions from all four shareholders. Later that year, the paid-up capital surpassed the 1,000,000-pound mark when the British Western Pacific High Commission [on behalf of Solomon, Gilbert and Ellice Islands] and the Kingdom of Tonga joined the consortium, by each subscribing 20,000 pounds [Addison R., p21, 2002].

The purchase of shares by independent and colonized island governments into the commercially-driven airline were undertaken due to the following reasons:

- To enable the subject airline company to sustain their services to their respective island countries, these colonized and independent island states prudently purchased equity into the subject entity. The increased capital injection facilitated the expansion of Fiji Airways fleet thus the ability of the airline to service their island destinations was greatly enhanced;
- By owning minority shareholding interests, the island colonies and independent states justifiably had their voices heard in the operation of Fiji Airways, especially during an era where the application of westernized development projects were in their infancy and the provision of a consistent airline service was strategic to their economic development goals;
- Colonial administrators had to spend weeks and at times months when they encounter storms in the Pacific Ocean through sea travel from the islands to reach either Australia or New Zealand where they catch flights to their destination countries. The provision of airline services to their respective island country of work drastically shortened traveling time.

However, it must be noted that the expansion of regional aviation services and acquisition of shares into Fiji Airways were all market and strategically driven without any formal processes nor high-level government / political involvement or negotiations undertaken to establish these regionalized services as was the case with the establishment of our regional shipping entity. Despite minority share ownership being held by regional island countries, their involvement was basically strategic and commercial.

SPEC's [now known as the Pacific Islands Forum Secretariat] guidance similar to that undertaken on the establishment of PFL wasn't effected in this aviation sector undertaking. Colonial and island government intervention was only sought for negotiating landing rights and other administrative papers that required processing to formalize scheduled aviation services.

In this context, there was no intention to form a regionally owned commercial airline but the commercial objectives of Fiji Airways and the economic development objectives of the colonial and island states were synchronized through the inherent benefits that can be derived through aviation.

1. The Provision of Transport Services at the National Level in the Aviation Sector Prior to the Establishment of Regional Services

Out of all the Pacific island states, only Fiji Islands had a national airline service prior to the establishment of regional aviation services. Furthermore, Fiji Islands was also serviced by TEAC from New Zealand as it had some established tourism infrastructure that were consistently demanded by mainly Australian, New Zealand and to a lesser degree, US travelers who wanted to experience the southern tropics. In this regard, another tourism-based airline carrier, Korolevu Air Transport [which was originally owned by Harold Gatty and sold to Bill Clark], with only one aircraft was specifically used to transport foreign visitors to Korolevu Beach Resort. Fiji Airways paid ten thousand pounds to take over this airline operation in 1961.

Fiji Islands had an edge relative to other island country destinations primarily because market demand for postal airmail services, tourism, public and private sector travel needs were available. This included Suva, Labasa, Nadi and Taveuni. Colonized island states had one-off aviation services from their colonial rulers and these services were not consistently effected at national levels.

The reasons why many island countries [except Fiji Islands] did not have national airline services are obvious. The majority of island countries at that time did not have the economic power, market demand, skilled support personnel, support aviation infrastructure and the support services required to undertake national airline services. Aviation services were the domain of more advanced and larger economies such as Australia, Britain, New Zealand, United States, etc., as they had the capacity and the demand to provide these services relative to island states.

2. The Capacity of the Aviation Sector Prior to the Establishment of Regional Services

The character of the region's aviation industry before the establishment of regional aviation services was monopolistic in nature, where Fiji Airways single handedly controlled Fiji Island's airways. The commercial airline also controlled and monopolized the regional aviation market for at least seventeen [17] years prior to the establishment of Polynesian Airlines by the Samoan government. Fiji Airways purchased 20,000 shares in the company and simultaneously assisted in the management of the airline [Addison R., p10, 2002].

As with all monopolies, the cost of air travel at that time was simply expensive. This was not primarily due to the inherent market structure but it had more to do with the precarious operational conditions that the subject airline was being subjected to at that time. Because remote airfields offered little, if any, in the way of facilities, the subject airline had to carry engineers, extra fuel and spare parts thus cutting down passenger capacity and increasing costs [Fiji Times, p.7, 1970]. The consequent of charging high airfares was that it hindered efforts by Fiji Airways to build up tourist traffic on its routes.

The capacity of the region's aviation sector prior to the establishment of regional services was highly substandard and grossly underdeveloped.

The following capacity attributes inherent within the various island states prior to the establishment of regional services included the following:

- Very few crude airfields which were extremely isolated [far apart] from each other;
- Remote airfields barely had any standard infrastructure nor support facilities;

- Inexistent fuel terminals, workshops or spare parts facilities, etc;
- Inexistent support personnel such as land-based aircraft engineers, machinists, electricians, airport administration staff, customs officials, etc.

During these days regional island airports consisted of the remnants of small airfields that were constructed during the two world wars. Their conditions were simply basic without any other facility that we see in modern airports today. In most instances these airfields had small-thatched houses or sheds, which served all the requisite functions that, were appropriate then.

During the early beginnings when the route network was only confined to Fiji Islands, various copra plantation owners at times accommodated the aircrafts wherever the pilots chose to stop [Addison R., p11, 2002]. This was the flying condition during those early periods.

However, out of all the airfields that were in existent during those times, prior to the establishment of regional services, Fiji Island's major airports in Nadi, Nausori, Savusavu, Labasa and Taveuni were far superior than those that existed in other regional island countries. Fiji Island's airports had proper airport building structures, support personnel [engineers, pilots, fireman, cabin crews, electrical engineers, machinists, etc.] and support facilities [refueling terminals, workshops / hangars, etc.].

With these facilities available and Fiji Airways plans to expand into the region, Fiji Islands was indeed well positioned to gain its status as the region's hub for international aviation.

a. The Key Constraints of the Aviation Sector Prior to the Establishment of Regional Services

The key constraints of the aviation sector prior to the establishment of regional services pertained to the following:

- Very few crude airfields which were extremely isolated [far apart] from each other;
- Airport / airfield shortages;
- Crude nature of airfields dictated aircraft-type being used which limited choice, undermined capacity and limited fleet flexibility;
- Remote airfields barely had any standard infrastructure nor support facilities;
- Inexistent support personnel such as land-based aircraft engineers, machinists, electricians, airport administration staff, customs officials, etc;
- High air fares which hindered traffic growth levels;
- High operating costs due to unavailability of support facilities and personnel at other regional island destinations;
- Very limited or inexistent hotel / accommodation infrastructure which limited supply capacity;
- Underdeveloped, under-resourced and economically 'small' target markets;
- Highly limited and poor supply of aircraft spare parts and peripherals.

b. The Overall Profitability of the Aviation Sector Prior to the Establishment of Regional Services

Due to the start-up nature of the commercial domestic airline in Fiji Islands coupled with an inexistent provision of airline services in the country, Fiji Airways experienced phenomenal growth with almost a purchase of an airplane every two years for six years. The profitability of

the airline prior to the establishment of regional aviation services can be attributed to the following factors:

- Fiji Island's infant tourism industry was growing and this facilitated the demand for airline services to traffic tourists to various destinations domestically;
- Fiji Island's colonial administration, sugar and gold industry were fairly large employers of predominantly expatriate skilled personnel and their demand for airline services for commercial, public service and private needs provided the required demand to drive the subject airline into profitability and growth;
- The subject commercial airline had high capitalization levels and this can be ascertained from the number of aircrafts being purchased annually which resulted from healthy trading results;
- The fixed contract obtained with the Colonial government on the delivery of all public and private mail coupled with the granting of an additional five-year license from the Colonial government provided a lucrative contract, which boosted company profitability.

B. The Processes by Which Services at the National Level Were Regionalized

Gatty suddenly passed away in late 1957 and did not realize his long-term dreams. After gaining the approval of the Colonial government, Gatty's widow sold all her shares in Fiji Airways to Qantas. Qantas, who had initially distanced itself from Gatty, faced stiff competition in its quest to purchase controlling interest in the airline from Pan American Airways, W.R. Carpenter and others. All the companies vying for ownership obviously saw enormous future growth potential in the airline [Addison R., p13, 2002].

All links with the pioneering Gatty were finally severed on November 15th of the same year when at an extraordinary meeting held in Suva, the company's name was officially changed from Katafaga Estates Limited to Fiji Airways Limited.

The major processes that were involved to expand the commercial operation of Fiji Airways into a regional liner were as follows:

- By early 1959 a Qantas management team was in place already making changes. During their initial board meeting it was agreed that the subject airline needed a capital injection of one hundred and fifty thousand pounds and it was expected that TEAL and BOAC would shortly take shares in the company. The involvement of these two additional major players in the airline would provide the springboard for the next phase of development;
- Operations expressed concern about the ability of the Drovers to fulfill ever-increasing growth in passenger traffic. Two 15-seater Herons were chosen due to their payload, capacity and range;
- By March 1959, after some initial problems associated with finding accommodation for travelers [a deal was finally being struck with a Mrs. Riechelmann to take rooms at her Beach House Guest Accommodation], the company's first unscheduled regional service between Nuku'alofa in Tonga was established;
- British Western Pacific High Commission formally invites Fiji Airways to mount a service to the New Hebrides and Solomons. To be viable, the subject service was to be subsidized by the Colonial government at fifteen thousand pounds annually;
- An expanded board, comprising representatives of new shareholders, BOAC and TEAL, but still under the management and direction of Qantas, addressed the pressing issue of regional travel. It was agreed that the stake in Fiji Airways be split three ways, with each shareholder being issued with 60,000 one pound shares and the nominal capital of the

company was increased to 500,000 pounds to provide the requisite cash injection necessary to expand operations into the region;

- For the next five [5] years, this tripartite operation would make significant in-roads into the Pacific, establishing scheduled air services between isolated island nations for the first time and helping to open up the region [Addison R., pp. 15-17, 2002].

The processes that enabled the expansion of regional air services by Fiji Airways was greatly enhanced due to the following underlying factors:

- The new shareholders were well established financially and they contributed the required capital injection that enabled the regional airline to undertake expansion initiatives with very minimal Colonial, island government or high-level intervention from Australia or New Zealand;
- The Colonial government was ready to subsidize initial commercial operations into their jurisdictions which easily facilitated the expansion of regional aviation services;
- There was increasing demand for air services in the region due to the huge time savings generated in regional / international travel coupled with the increasing level of economic development and commercial activity that was springing up throughout the region from the early 1960's.

The expansion of Fiji Airways services to the region was greatly facilitated by the injection of capital funds into the subject airline. The capacity and capability to expand likewise was greatly enhanced by the involvement of three established international airlines – all British Commonwealth grown and had significant financial influence from London to facilitate the general development of the empire states in the Pacific region through the provision of aviation services.

Regional aviation service was also greatly facilitated because New Zealand and Australia – former colonies who have assumed colonial responsibilities in the region had a responsibility to facilitate the general development of their respective jurisdictions.

Despite its expansion into the region, Fiji Airways did not truly become a regional airline in the true sense of the word. In subsequent years, Samoa, Nauru, New Caledonia, Tonga and the Solomon Islands established their own flag carriers. Most of these airlines have since been defunct due to recurrent losses caused by huge diseconomies of scale. In most cases, these airlines did not have the demand-driven capacity, tourism-support infrastructure, source-market control and the financial capacity to sustainably fund losses to at least buy market share - in an increasingly competitive environment due to the presence of other international airlines that were servicing the region during the 1970's. This included British Pan Am, American Airlines, TEAL / ANZ, Continental, Qantas, UTA and Air Pacific [formerly known as Fiji Airways]. These international carriers [British Pan Am, American Airlines, Continental and UTA] withdrew their services from the region primarily because market demand dwindled due to increased supply levels caused by the establishment of Pacific island-state carriers.

However, it must be stated that despite their withdrawal from the region, these international aviation players formed airlines that were specifically developed to service the region, which clearly nullified the 'regional airline' concept. Air New Zealand teamed up with the Samoan government to form Polynesian Airlines. Melanesian Airlines belonged jointly to Qantas, BOAC and UTA [Fiji Times, 1973].

On another front, Fiji Airways experienced immense regional activity levels between the mid-1960s to early 1970's. During this period, the company board mooted a name change to reflect its regional presence. The name Pacific Island Airways was adopted and the board released the name 'Fiji Airways' to the Fiji Islands government, with provision that it only be used if the government decided to establish its own internal airlines some time in future [Addison R., p 26, 2002]. This new name was unintentionally an interim one as the company successfully negotiated the acquisition of a new name 'Air Pacific' after some legal wrangling.

1. The Institutional Structure of Air Pacific

The institutional structure of Air Pacific is not being expressly illustrated to highlight the main elements of the company's overall framework. However, it can be deduced from the various documents and interviews conducted with company representatives that the shareholders interests – as in all commercial undertaking – is paramount.

The major shareholders of Air Pacific are the Fiji Islands Government and Qantas. The other minority shareholders are Air New Zealand and the governments of Solomon Islands, Kiribati, Tonga, Western Samoa and Nauru.

The shareholders' interests are being looked after by the company's board of directors. Under Air Pacific's corporate governance charter, the board is accountable to the shareholders to protect and enhance shareholder value by guiding and monitoring the corporate strategies / strategic direction, plans, policies and performance of the company.

Furthermore, the board is tasked with monitoring the operating and financial performance, risk management, setting and reviewing senior executive succession planning and reporting to shareholders. In accordance with the Articles of Association of the subject international airline, the number of Directors must not be less than five and not more than nine and a majority of the company's directors must be Fiji Islands nationals.

The Board comprises five Fiji Islands directors, four Qantas directors for as long as Qantas holds more than 40% of all voting shares in the company. The directors may, if the person is a Fiji Islands citizen, elect two of the Fiji Islands directors to the office of chairman and deputy chairman of directors. The four non-executive Fiji Islands directors are appointed by the Fiji Islands government.

The other major component of Air Pacific's institutional structure pertains to the Audit and Remuneration Committee. The primary objective of the Audit Committee is to assist the Board in fulfilling its responsibilities in regard to the accounting and reporting practices of the company. The primary responsibilities are to:

- Review the internal and external audit plans;
- Reviewing the financial reports with particular emphasis on compliance with statutory obligations;
- Evaluating the adequacy and effectiveness of the company's operating and financial controls.

Four directors, one of whom is a Qantas director serves on the Audit Committee.

The Remuneration Committee meets once a year. It is tasked with recommending to the board, the remuneration package for the Managing Director and Chief Executive officer. This

committee consists of three directors, of which one is a Qantas director [Air Pacific Annual Report, p7, 2004].

2. Air Pacific Running Costs, Overhead, Etc.

Air Pacific Limited

Summary Profit & Loss Statement

For the Six-Year Period 1999 - 2004

	1999	2000	2001	2002	2003	2004
	F\$'000	F\$'000	F\$'000	F\$'000	F\$'000	F\$'000
Gross Revenue	309,279	391,066	266,145	357,703	407,502	421,699
Expenditure	286,728	360,625	305,701	348,028	382,362	387,061
Operating Profit / Loss	22,551	30,441	-39,556	9,675	25,140	34,638

Source: Air Pacific Annual Report 2004.

The summarized profit and loss statement clearly depicts the profitable status of Air Pacific from the period 1999 – 2004, with the exception of 2000, when the company was suddenly jostled with the effects of the May 19th coup. There could be a few underlying fundamentals that caused the subject regional and international liner to ascertain the aforementioned financial results:

- The company undertook a restructuring of the airline along with a total re-evaluation of the way Air Pacific undertook their business in 1999. This was necessary as it ensured that they [Air Pacific] had the resources to meet their future plans and challenges;
- The purchase of new generation aircrafts strengthened existing fleet and provided the company with the flexibility to facilitate growth, meet route demands and expand its carrying capacity;
- Their agility to negotiate and settle aircraft financing deals with low fixed interest financing for these new generation aircrafts;
- An emphasis on cost containment and achieving increased work efficiencies, especially in the presence of increasing fuel prices;
- The voluntary sacrifice undertaken by employees of the company to take outstanding leave without pay, reduced working hours per week, etc., to keep the airline afloat during periods of financial difficulties caused by political instability;
- The company's has ably demonstrated that it has the resilience and structure to weather significant domestic and global impacts due to its ability to adapt to prevailing operating conditions;
- The sound level of capitalization which has enabled the company to meet and adapt to the needs of the market;
- The ability of the company to expand and invest in critical peripheral business that will facilitate, sustain and strengthen its organization vision and goals.

C. The Qualitative and Quantitative Costs and Benefits of the Regional Aviation Service Over the Progression of the Project.

1. The Qualitative Benefits

The qualitative benefits are benefits that have been enjoyed by the travelers, hotel operators, traders, the island economies and those who derive their livelihoods from tourism or aviation services as a result of the provision of aviation services that cannot be tagged with a monetary value. The qualitative benefits of initiating a regional aviation service over the progression of the project includes the following:

- Exotic locations and unique cultures experienced by foreign travelers to regional island destinations;
- Economies of scale – provision of larger aircrafts that had greater carrying capacity, flexibility, faster, superior comfortability and on-board services relative to the initial fleet that was servicing the region during the 60's to the 80's that has been enjoyed by foreign and regional citizens alike;
- Airlines commitment to ensure fleet conformance to specific environmental certification standards on emissions by ICAO. Furthermore, the company's fleet comprises the latest technology aircraft which complies with noise abatement regulations;
- Significant facilitator of regional development in all sectors of the Pacific island economies;
- Rationalized timetables and destination markets;
- Employment opportunities for islanders in all sectors emanating from the travel and tourism dollar;
- Improved airport infrastructure and support facilities;
- Improved aviation and trade facilitation services;
- Increased foreign exchange earnings;
- Reduced dependency on external aviation services provided by foreign airline companies;
- Increased control on facilitating regional political, economic and trade development agendas and cooperation.

2. The Qualitative Costs

The qualitative costs are costs that have been incurred by the aviation company, travel agents, traders, hotels, etc., and the island economies, as a result of the introduction of regional aviation services that cannot be tagged with a monetary value.

The qualitative costs of initiating a regional aviation service over the progression of the project includes the following:

- Air and noise pollution;
- Exposure to foreign cultures and orientations which have negative social, medical and cultural consequences;
- Increasing levels of environmental degradation of shores, beaches, native flora and fauna, fisheries, inappropriate / illegal dumping of rubbish, etc. due to increasing levels of tourism activity and related developments;
- Erosion of sound moral and traditional values due to the adoption of westernized cultures and lifestyles;
- Increasing levels of breakdown in extended / kinship family relationships, family values, divorce and illegal sexual activities / relationships;

- Exposures to new forms of market imperfections which takes time to adapt to [longer learning curve], adaptation costs and adjustments to work cultures / ethics to assimilate these changes positively; and
- Loss of highly skilled and experienced personnel due to uncertainties and globalization.

3. The Quantitative Benefits – of Regional Aviation Services Over the Progression of the Project.

The quantitative benefits that have been realized through the introduction of regional aviation services to the regional countries have far exceeded the costs entailed in undertaking commercial aviation operations in the Pacific island states.

The aggregated net benefit over the subject study period was Fiji dollars (F\$)8.8 billion. The key 'benefit' driver under this model emanates from tourism, trade and other economic benefits and this includes the generation of foreign exchange income – private and public sector, employment generation, tax receipts, infrastructural / systems development, technology transfers, product / service exposures, international market penetration, etc.

The other revenue drivers are primarily the income generated from existing capacity [gross income generated from regional airline services], dividends received and profits generated.

4. The Quantitative Costs – of Regional Aviation Services Over the Progression of the Project.

The quantitative costs that have been realized through the introduction of a regional aviation services to the regional member countries have been far lower than the benefits generated in operating the subject airline.

However, it must be noted that despite the surplus aggregated benefits that have accrued over the subject period, there were periods when critical interventions had to be introduced during times of financial and operational hardships.

Two material incidents worth mentioning under these net cost positions pertained initially during 1965, when Fiji Airways experienced considerable losses due to capacity constraints inherent within their Heron aircrafts during long haul flights. From its normal carrying capacity of fifteen [15] passengers on short haul flights, these passenger levels had to be reduced to eleven [11] passengers during long haul flights as the subject airline had to carry its own technical support personnel on these routes due to the absence of ground support personnel in their respective destinations. The mounting financial burden threatened the future of the subject airline and the Fiji Islands government intervened by injecting equity capital.

During the early 1980s Air Pacific embarked on an ambitious exercise dubbed 'Project America' when it mounted a three times a week service to Honolulu through a leasing of a Western Airlines DC-10 aircraft. The subject project was doomed due to a cash crisis that had been mounting steadily, fed by a string of losses dating back to 1979/80. The cost of operating this subject service pushed accumulated losses to \$35 million [Addison R., p 35, 2002]. Regional diplomacy prevailed when Qantas stepped in with a package to reverse the airlines existing status. Qantas proposed a management support contract, along with series of soft loans and other forms of assistance to ease the financial pressure. It was clearly evident that Air Pacific was flying number of routes that were not profitable with aircrafts that were not ideally suited to do the job that needed to be done. To tackle this problem Schaap took over a Qantas-leased

Boeing 747-200. His first priority was a restructuring of the route network and a replacement for the Bandeirante as more efficient and effective way of servicing the Suva – Nadi sector and to a lesser degree, Suva – Labasa [Addison R., pp. 37-38, 2002].

Being seconded from Qantas, Schaap's mandate and brief was straightforward – return the airline to profitability, attack costs, build a professional operation and establish a model that would enable him to hand over to a local successor at the end of his three-year contract [Addison R., p 38, 2002]. Schaap fulfilled his mandate and left the airline in good stead.

The aggregated net cost over the subject study period was F\$13.1 billion. The key 'cost' driver under this model pertains to tourism, trade and other economic costs together with the cost incurred by Air Pacific in operating its existing capacity and this includes group administration, operating and financial costs.

The other major cost driver is primarily the opportunity cost [foregone development potential in other sectors due to capitalization of funds in aviation infrastructure, airline fleet and related peripheral investments], whereas the other costs emanating from net losses make up the remaining expense contribution.

5. The Quantitative Costs and Benefits – Including Capacity, Key Constraints and Overall Profitability – of the Regional Aviation Services over the Progression of the Project

The subject analysis that has been undertaken in this study should be viewed as providing an indicative picture of the historical cost-benefit position under which Air Pacific operated from 1983 to 2004 [twenty one-year period]. The justification of underlining it as an indicative position stems from the fact that the multiplier rates used [both in ascertaining costs and benefits] are subjective. However, the rates used reflect the margins generated and the costs absorbed in the relevant industries being identified as having primary benefits derived through the provision of regional aviation services. It must be stated that wherever estimates are being introduced, their ascertainment are based on business principles of prudence and their values are not materially overstated or understated.

The economic data that is being used to ascertain benefits accruing to regional island countries pertains to the gross receipts generated by the tourism industry in Fiji Islands. This figure is being effected with an initial multiplier of 40% to account for the benefits to Fiji Islands and to the region and an additional annual multiplier of 20% to account for the positive flow-on or snowball effects of the dominant tourism trade dollar.

An allocation of 40% of the total benefit generated has been ascertained to gauge the cost of undertaking tourism, trade and other economic activities in regional island countries that have access to aviation services.

The reader must take note of the assumptions used and carefully note the major factors needing consideration when assessing / evaluating the cost-benefit analysis of Air Pacific.

D. Overall Assessment of the Net Quantitative and Qualitative Cost/Benefit of Pooling Regional Resources in the Aviation Sector in Retrospect

The benefits generated by the airline itself, the major snowball effect on island tourism, the trade and economic benefits accruing to regional island member countries [including Australia and New Zealand], the dividends received, the profits generated and the socio-political advantages gained through the development of this regional aviation service provider are indeed enormous. The elimination of a 'total-dependency' syndrome on foreign regional aviation services to facilitate tourism, trade and commerce in the islands is a significant achievement. Contributions provided by Air Pacific in facilitating and expanding the capacity and capability of forum island countries to undertake commercial tourism initiatives is highly critical to the viability of the subject leisure and travel industry in the region. Aviation does the physical 'leg walk' to channel visitors into the various shores of the Pacific. The provision of aviation services which traffics hundreds of thousands of visitors annually to our shores provides income for government, private enterprises, families and individuals who derive their livelihood from tourism.

The aggregated level of benefits attained by Air Pacific in servicing the Pacific far exceeds the net benefit if we account for the trafficking of nurses, soldiers, policeman, security personnel, care givers, skilled professionals who pour in hundreds of millions annually to their loved ones in the islands. The carting of highly skilled professionals within the region and to other offshore destinations to undertake assignments, which are redirected into the region is another enormous financial and non-monetary benefit.

Furthermore, the various taxes paid by tourism and peripheral organizations [food, refrigeration, transport, etc.] involved in the formal sector – VAT, PAYE, company tax, capital gains tax, property tax, tariffs on equipment / machinery offshore purchases, etc., signifies the enormous benefits that have accrued to public coffers over the study period are indeed exceptional. The increasing level of 'intra-regional' trade being facilitated through the operation of Air Pacific further justifies the significant benefits – social, economic and political – that the region stands to benefit from through the operation of this aviation institution.

All the sectors of regional island countries have directly or indirectly benefited from the services provided by Air Pacific. These positive externalities have significantly contributed to the development and deepening of these various sectors in the region. In this context, many broad-based initiatives would not have materialized to the stages they are at now, had it not been for the critical support infrastructure being provided by Air Pacific's airline infrastructure.

In retrospect, the provision of regional and international aviation services by Air Pacific has generated the requisite benefits that the island communities have visibly experienced. However, as with all ventures, it went through periods of troughs that emanated internally and externally. Regional cooperation, assistance and diplomacy eventuated to sustain the subject airlines operations as they foreknew the critical importance aviation had on our dispersed archipelagos.

II. PACIFIC FORUM LINE -- A RETROSPECTIVE COST-BENEFIT ANALYSIS

A. The Historical and Financial Rationale for Creating a Regional Shipping Service

The idea of having a regional shipping line first surfaced in 1956 during the first South Pacific Conference when regional leaders highlighted the need for sea transport among the islands that will serve as the artery for the region's economic development [Nightingale, T., p.5, 1998]. Even though these expressed views could have been considered farsighted by then, it provided an insight as to how regional leaders' wanted to shape the future of the Pacific despite the differing challenges and issues that were beckoning them at that time.

1. Union Steam Ship Company

The dominant ship-owning entity that serviced the Pacific route since the late 19th century was the Union Steam Ship Company of New Zealand. There were several Australian shipping companies that served the region, while European lines directly served Fiji Islands. A number of larger operators stopped off in the Pacific as part of their Australasia-America and Australia-Europe trade.

The New Zealand government initially incubated the regional routes through subsidization, but once the Union Company's subsidized operation became profitable the grant was withdrawn. The Union Company viably serviced the subject route and positively facilitated trade in the South Pacific region for almost a century, when financial misfortune plagued the entity during the 1960s. There were several underlying reasons that contributed to the non-profitable performance of the Union Company and these included the following:

- The serious decline in banana trade due to disease;
- Stiff competition from South American fruit producers;
- Increasing level of passenger air travel (Nightingale, T., p.1, 1998).

There were other factors that contributed to the increasing non-profitability in servicing the Pacific routes and these included the following:

- Shipping became a high-cost industry due to massive cost increases particularly on conventional vessels;
- Transport costs for Pacific Island agricultural exports were considerable since they were all high-bulk, low value cargoes;
- Increasing inability of local shippers to viably operate since they were unable to contain operating costs;
- Entities servicing the Pacific routes were suffering from competitive pressures partly caused by a trend towards containerization;
- Entities servicing Pacific routes neglected infrastructural developments, which induced cost hikes due to continuous utilization of ageing vessels that were increasingly inappropriate due to increasing maintenance costs, stop-start operating modes, lengthened route completion days due to mechanical depreciation and these vessels were considered non-adaptable in light of modernized maritime asset and support systems development.

The increasing non-viability of servicing Pacific routes resulted in Union Pacific ownership changing hands. This equity change transaction and the continuous utilization of an ageing fleet, despite the introduction of containerization provided increasing anxiety amongst Pacific leaders' as to the subject company's commitment to the region. As non-profitability levels continued unabated, Union Pacific discerned that Pacific shipping was a high-risk venture and it

tried to counteract falling revenue through repeated freight increases and reduced levels of service. This strategy frustrated and angered Island politicians and business leaders, which triggered calls for the creation of a regional shipping line.

2. New Zealand Maritime Union

Despite all the internal problems that the Union Company was facing, a major factor that hindered and invariably rendered the non-viability of shipping services to the region pertained to the strong New Zealand Maritime Union's dominance on industrial issues. Union Company ships had traditionally been crewed by New Zealand seamen and the practice remained, despite the fact that New Zealand award wages were considerably above international rates and vastly superior to what Island seamen could expect. While the Union Company might have wished to hire cheaper Island crews, this was politically untenable and would have caused widespread industrial disruption [Nightingale, T., p.11, 1998]. The industrial dominance of New Zealand's maritime unions were so immense, that it had a direct and powerfully negative influence on the future administration of regional interests due to its rigid stance on the adoption of International Transport Workers' Federation [ITF] wages and conditions by all seaman plying the New Zealand ports. Their hostile position on opposing foreign [non-New Zealand] crews also included their resistance on foreign-owned vessels operating in their 'traditional' routes – which included the Pacific.

The union's position on Island-crewed vessels was considerable. If Island-crewed vessels were not fully owned and operated by Islanders and offering wages at New Zealand levels, or if they engaged in cross-trading, then industrial action is usually effected. This had been a perennial problem for Island-manned vessels [Nightingale, T., p.11, 1998].

3. South Pacific Commission

There were other variables at play during this period of maritime instability in the Pacific that ultimately led to the creation of the Pacific Islands Forum and later, the Pacific Forum Line.

The South Pacific Commission was established in 1947 as a result of the 1944 Canberra Pact to give those with Pacific interests a say in post-war international reorganization. Its purpose was to link the colonial powers with Australia and New Zealand, two independent former colonies that had themselves assumed colonial responsibilities. From the 1960's newly independent Pacific states were encouraged to join but the agendas were controlled and 'political issues', particularly those associated with independence, were avoided. Moreover, the distribution of money was determined by the former colonial powers, which the independent Pacific states perceived as a tool for rewarding those who 'toed the line'. Emerging Pacific nations joined the South Pacific Commission but increasingly felt constrained [Nightingale, T., p.15, 1998].

4. South Pacific Forum

Sensing the difficulties the smaller Pacific Island states had, in voicing and seeing to the implementation of 'Pacific' opinions, a push for a new forum came particularly from Fiji Island's Prime Minister, Ratu Sir Kamisese Mara, who pressed for the formation of a distinct international body where issues affecting Island nations could be discussed. The South Pacific Forum was actually established during this period of maritime volatility.

The majority of South Pacific Forum members were former colonies and most were gaining independence after 1960 – this shared experience is an important factor in the Forum’s perspective on a wide range of issues including that of having a regional shipping line [Nightingale, T., p.7, 1998].

5. Pacific Islands Producers’ Association

On another dimension, the Pacific Islands Producers’ Association [PIPA] came into being as a result of discriminatory prices paid by New Zealand Fruit Distributors and succeeded in obtaining universal ‘Free on Board’ prices. Island banana growers had one major outlet through New Zealand Fruit Distributors – a government regulated body responsible for supplying bananas and pineapples to the entire New Zealand market. Its establishment in 1965 by the Fijian and Samoan governments and banana growers gained momentum as Tonga, Cook Islands and Niue joined the regional organization soon after its inception. The timing was important. PIPA, the first regional organization driven by Island interests, arose at a time when the South Pacific nations were gaining independence. In effect, the commercial operation of PIPA’s members mirrored the wider post-colonial relationship. It was natural that the organization would come to embody emergent nationalism [Nightingale, T., p.6, 1998].

Transport costs for Pacific Island agricultural exports were considerable since they were all high-bulk, low value cargoes. As highly perishable bananas in particular needed to be moved as soon as possible after harvest, PIPA officials quickly began to put pressure on the Union Company to improve its schedules and service. PIPA did not wield significant power in the banana market. Island producers had considerable difficulty competing with Ecuadorian growers, while the ‘Free on Board’ price was only possible within the context of the Fruit Distributors’ monopoly. By 1971, Island politicians and business leaders were frustrated by repeated freight rate increases and the irregularity of services. It was in this context that they called for the establishment of a joint regional shipping company at the 1971 PIPA conference in Nuku’alofa.

The move to form a regional shipping line was a part of a wider push for the development of regional autonomy. It was only with the advent of a sense of regional identity, cemented by the formation of Pacific organizations, that coordination became practicable [Nightingale, T., pp.5-6, 1998].

B. The Provision of Shipping Services at the National Level Prior to the Establishment of Regional Shipping Services

The majority of Island states were not ‘self-sufficient’ in the provision of shipping services at the national level, even to this day. The provision of shipping services to the various islands within a nation was so rare, especially for those that were isolated from the main shipping routes. For island destinations that were within the main trading or shipping routes, they could expect a service once or twice a year. The scenario was more perilous for small, isolated and resource-poor island states, which cannot even afford to attract a regional liner to their shores.

There were several reasons pertaining to the scarce provision of shipping services that were effected nationally and these included the following:

- The volume of intra-trade between the islands were very minimal both in terms of capacity and finance;

- Passenger and cargo volumes from one specific island destination were non-viable and shippers were required to cover at least a number of islands before their passenger and cargo capacity could be attained which implied high shipping and operating costs;
- Colonial government subsidies were rationalized amongst the sporadic island destinations and this directly impacted on the frequency of voyages that could be undertaken within a specified period;
- There were very few colonial government vessels that were available which, in many cases, cannot viably visit at least one-half of the inhabited islands within a year;
- Subsidizing private shipping operations was always kept to a minimum due to passenger and cargo volume constraints;
- Inter-island shipping was considered a high-risk business and this was reflected in the high turnover of companies that withdrew from the subject sector after a short-term period and the high level of ship ownership changes that accrue from this industry.

It must be highlighted at this juncture that the majority of commercial goods that were traded were predominantly confined to the main urban centres and the volume of imported goods that were traded to the rural centers during the early to mid twentieth century were minimal – in volume and scope. Thus the level of commercial activity in the rural and outer islands in most Pacific Island states were directly correlated to the level of shipping services that was provided at that time.

It must also be highlighted that during this era, many islands who were isolated from the main national shipping routes had to use traditional crafts to reach the nearest island that were serviced by the shipping companies. In some cases, the travel from the original destination to the final destination could take at least a couple of months as travelers had to wait for the motor vessels in the serviced islands for weeks or months as they had no preconceived idea of the vessels timetable.

C. The Capacity, Key Constraints and Overall Profitability of the Sector Prior to the Establishment of Regional Shipping Services

The character of the region's shipping industry before the establishment of a regional line was oligopolistic in nature, where a few shipping entities dominate the market – in this situation, they control 100% of the region's shipping industry. Under these supply conditions, these shipping companies do exert significant levels of control and their modus operandi resembled that of a cartel as their pricing structures and cargo / passenger capacity were similar. Furthermore, shipping schedules and cargo differentiation were to a great extent clearly demarcated between these operators.

Another element of the subject market pertains to the difficulty in entering this industry due to intensive capital requirements. With these preconceived notions of market entry barriers, foreign market players in the region's shipping industry primarily 'shaped' the industry and the Island states were attuned to their dictates.

These foreign shipping entities had no Island equity interest and their operations were commercially driven with the objective of attaining maximum profits.

It was not after the middle of the twentieth century that a few Island states managed to have vessels of their own that operated at the national and regional level. In most cases these vessels operated within the Pacific region and it was rare for any vessel to operate beyond

Oceania. The routes undertaken by these nationally owned vessels were primarily dictated by trade with other Island states, Australia and New Zealand.

Nauru had purchased ships since the 1960s and had three conventional freighter and passenger-freight vessels on the Australia-Nauru run and even for cruises. The Nauruans had plans to purchase further ships and were prepared to commit a considerable amount of capital into the development of a line. To crew the vessels, the company hired from outside Nauru, particularly from Tonga.

In 1970 the Tongan Shipping Agency operated two ships on overseas runs. The Aonui had been purchased in 1959 by the Tongan Producers' Board to trade between Fiji Islands and Tonga. In November 1963 the Tongan Copra Board purchased the Niuvakai, with the intention of transporting coconuts for the Tonga-Fiji Islands-Australia route, which was in direct competition with a service introduced by the Union Company earlier. In May 1972, these shipping interests, which had previously been managed by the Tongan Shipping Agency, were formed into a national line – the Pacific Navigation Company of Tonga Limited.

Tonga and Nauru worked independently to develop their shipping interests but both made considerable losses and the viability of their operations was brought into question, at least by other ship owners. However, there were various suggestions from Island leaders that these assets should be used as the basis of a regional shipping line. In early 1973, representatives from the two companies met to examine the possibility of establishing a regional carrier based on their fleets, but by this time there was a growing support for wider regional involvement [Nightingale, T., p.5, 1998].

In 1976 Papua New Guinea established its own line which was viewed by many observers at that time as putting the subject company in direct competition to the proposed Pacific Forum Line [PFL] in a restricted market.

1. The Capacity of the Sector Prior to the Establishment of Regional Shipping Services

The capacity of the regions shipping sector prior to the establishment of regional shipping services was highly restrictive – restrictive in both the supply and demand capacity.

On the supply side, capacity constraints emanated due to the following underlying factors:

- Vessels used to service regional routes were 'old' vessels that were generally inefficient, had low cargo capacity intake levels and slow turn-around time in port due to high maintenance requirements;
- Fragmented services whereby vessels only called into ports that were considered viable and those that were not, were totally eliminated unless subsidies were offered to supply these non-profitable routes;
- Low capitalization levels undertaken by shipping companies servicing the region at that time implied that ships on active duty were substandard in terms of cargo absorption levels, high stop-start mode, high down-time, slow turn-around time, etc.;
- Restricted / captive market.

Capacity constraints emanating from the demand side prior to the establishment of regional services included the following:

- The low unit value / high bulk of Island exports;
- The imbalance of north and south bound freight.

2. The Key Constraints of the Sector Prior to the Establishment of Regional Shipping Services

The key constraints that the subject sector was faced with prior to the establishment of regional shipping services included the following factors:

- Hostile and dominating maritime union;
- Huge freight rate increases;
- Geographical isolation and high dispersion of intra-regional trade routes;
- Port space shortages with outdated and inferior support facilities and lack of container facilities;
- Unreasonably high pilferage;
- High operating costs due to inflationary pressures;
- Underdeveloped, under-resourced and economically 'small' target markets;
- Aged and highly outdated conventional fleet.

3. The Overall Profitability of the Sector Prior to the Establishment of Regional Shipping Services

The subject sector was plagued with non-profitability prior to the establishment of PFL. The factors that contributed to the non-profitable status of regional / international shipping entities that were serving the Pacific region at that time included the following:

- High operating costs due to high maintenance and exorbitant New Zealand crew wages / salaries;
- Recurrent revenue losses due to reduced cargo and passenger volumes;
- Difficulties in containing costs both at sea and on-shore primarily due to poor capitalization levels;
- Non-existent reinvestment strategies / options to modernize fleet and support systems / infrastructure to maintain fleet competitiveness, efficiency standards, capacity requirements, etc.;
- Reluctance of successive New Zealand governments to reduce high labour costs due to fear of widespread industrial conflict;
- Massive reduction in passenger volumes due to increasing regional / international airline services;
- Decline in island produce exports due to crop infection thus contributing to increasing levels of empty return voyages from Pacific runs - meant a greater unit cost of freight to the islands;
- New Zealand based maritime operations were very expensive, while alternative Island services were restricted to direct trade between New Zealand and the shipper's original country;
- Entities serving the Pacific routes were suffering from competitive pressures partly caused by a trend towards containerization.

After commercially trading for a combined operational period exceeding thirty [30] years, individual Island shipping nations came to the realization that servicing the region's shipping needs was a high-cost industry and they did not have the individual capacity nor the expertise to fully service the region and simultaneously generate sound balance sheet profiles. They were of the view that to contain costs, the subject regional entity required intensive capitalization and had consensually concluded that this required a need for wider regional involvement and development.

D. The Processes by which Services at the National Level were Regionalized

The processes that were undertaken to regionalize shipping services at the national level took four years to complete after being commissioned. There were different private consultants and accounting firms, international agencies, regional council / teams and organizations involved in undertaking studies, surveys, analysis and scrutinizing various reports being generated during the course of this exercise. Furthermore a regional conference to brainstorm problems of Pacific Island shipping was undertaken to enable a better appreciation of the continuous problems that plagued the region that will provide insight as to how the regional shipping service can be undertaken effectively to nullify these 'real life' problems.

The processes that were undertaken to regionalize shipping services is conclusively documented below after Forum leaders gave the authority to SPEC to initiate investigations into the setting up of this regional shipping concept.

1. 1971 Review commissioned by SPEC.
 - Investigation of asset value of existing Island shipping lines.
 - Detailed revenue projection for the next five years.

It must be noted that Tongan Shipping agency's submission was rejected due to the consultants findings that this subject shipping company had incurred consistent losses, profitability prospects were non-existent and a limited liability company based on this arrangement could not continue indefinitely if it always incurred losses.
2. Report on UNESCAP funded Regional Transport Survey.
3. Regional Minister's and Unions Conference in Apia to discuss problems of regional shipping.
4. PIPA & UNESCAP Report considered during 3rd Forum meeting in September 1972 in Suva and SPEC charged with determining the viability of a regional shipping line.
5. SPEC acquired Australian shipping advisor to develop a framework for a possible regional shipping line.
6. Forum decides to integrate framework report with a further SPEC paper on regional trade.
7. When both aforementioned studies completed – required reviewing by SPEC and referred back to the Forum.
8. March 1974 Rarotonga Forum – Authorized the establishment of the Regional Shipping Council that was tasked to set policy guidelines but favoured further studies before making any formal decision to proceed.
9. Australian government requested the Australian National Line [ANL] to estimate the viability of providing a container service between Australia, Samoa, Tonga and Fiji Islands.
10. Dutch shipping expert engaged to co-ordinate a range of studies to investigate the following:
 - Pacific trade flows.
 - Possibility of pooling current shipping resources.
 - Establishment of SPEC survey team to convert value and weight statistics into volume since an assessment of freight volumes would ascertain the viability of any new service.
11. Studies presented to the Regional Shipping Council in 1975 producing a development schedule for the regional shipping project.
12. Regional Council vetted the studies which had to demonstrate the following:
 - That a regional line could be commercially viable.
 - Ascertaining the best routes for the new line.
 - The types of ships required.

- Types of cargo to be carried.
13. Regional Shipping Council's recommendations were accepted at the 1975 Nuku'alofa Forum and immediate steps were taken to form the shipping line [Nightingale, T., p.5, 1998].

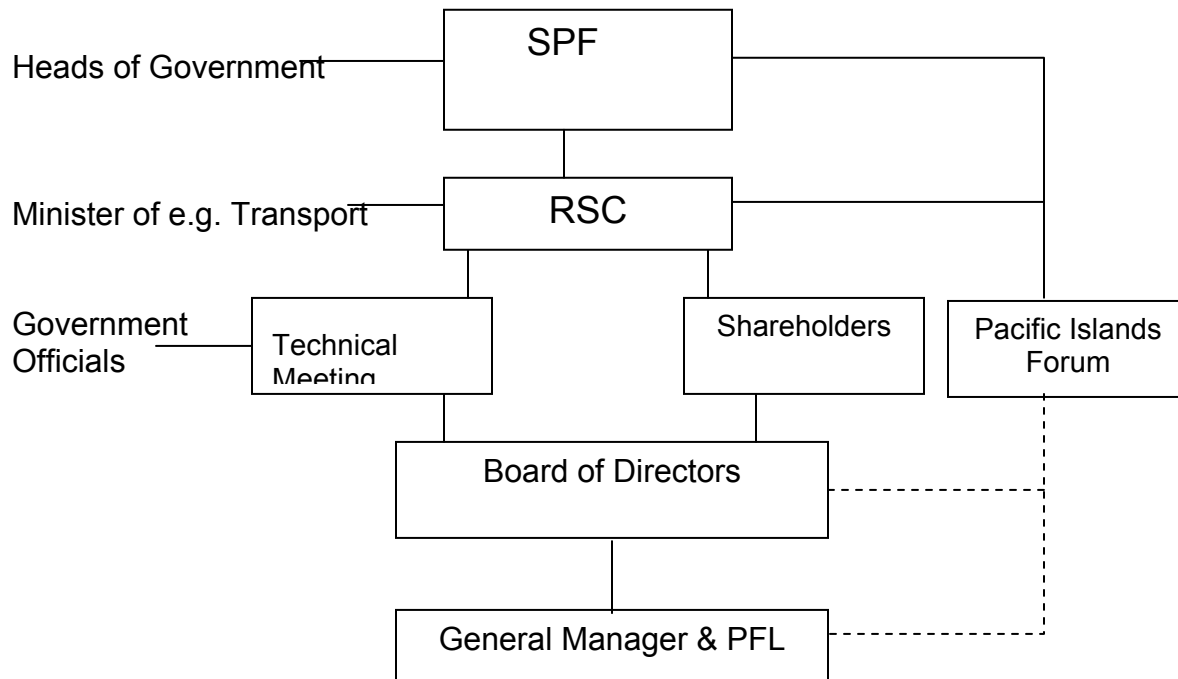
Once the Forum agreed to the setting up of the regional line, the process of reaching an agreement on the shape of the organization was a major political challenge. There were major decisions that had to be taken relating to how each Island state could participate so that all Pacific nations would have an equitable stake in the regional carrier.

The pooling system that was recommended by de Vlaming was accepted by the Forum whereby participating countries contributed vessels under charter to the line and this strategy effectively removed any need for capital to buy ships. Furthermore, it was agreed that working capital contributions should be within the means of smaller Pacific Island states and profit or losses would be apportioned to the participants according to their contributions [Nightingale, T., p.25, 1998].

A Memorandum of Understanding was drawn up which was the international agreement between the nations and the basis of the articles of association of the company. The main elements of this document are as follows:

- The company – Pacific Forum Line was established under Samoan law;
- Each contracting party was required to invest W\$10,000 as part of a total capital of W\$100,000;
- None of the participants was able to sell its shares except back to the other shareholders, so that control would remain within the governments;
- Governments – contracting parties – had to give a year's notice of intention to withdraw from the line;
- The line was to be administered through the board of directors and the Regional Shipping Council, with the latter determining general policy.

1. The Institutional Structure of the PFL



The institutional structure of PFL was developed primarily to ensure the need for public control – which stems from two main reasons – the maintenance of public interest and control of public expenditure [Touche Ross & Co., p.102, 1981].

The concept of public interest is based on service for and to the community. The institutional structure of the PFL stands to ensure the following:

- The economic and political interests of the Forum states are consolidated to ensure the future prosperity and posterity of the Pacific populace;
- The artery of the regions global trade aspirations is continuously subjected to public scrutiny to ensure that this facilitating regional infrastructure is not compromised as it forms a fundamental instrument in enabling the Island states economic vision and objectives;
- The commercial interests of the regional entity are not jeopardized and its continuity objectives promoted;
- The element of internal control and investigative powers to foster the growth, protection and management of this regional maritime instrument is upheld continuously with independent elements within and external to the subject framework given unrestricted powers embedded within the discretion of the Heads of Forum Island states through the Regional Shipping Council.

a. The South Pacific Forum

The South Pacific Forum [SPF] is made up of leaders of regional member countries who meet annually to discuss broad political, social and economic issues of interest to the region. The PFL owes its conception and birth to the SPF, which has continued to be the major source of funds

for the subject regional entity. The SPF's participation in the subject regional line is generally on an ad hoc basis and they have been involved during drastic periods of financial uncertainties, determination of regional routes, changes in directorship and in other critical issues that promotes the sustenance and continuity of the regional entity.

b. The Regional Shipping Council

The Regional Shipping Council [RSC] is largely made up of regional Ministers holding the transport portfolio whose primary concern pertains to general shipping policy and cooperation in the region. The RSC has a major role in determining policy direction and some of their functions are as follows:

- The determination of general policy;
- The review of PFL operations in the light of its objectives;
- The determination of basis for PFL contractual arrangements;
- The approval of criteria for the provision of non-viable services in special circumstances;
- The determination of policies for the establishment of tariffs.

The RSC usually discusses the affairs of the PFL on the basis of information papers drawn up by officials, shareholders or PFL itself. Discussions involving members of the RSC are separated into two distinct parts – an open session involving the chair and general manager of PFL and a closed session restricted to the RSC. Whilst the RSC is the formal link between governments and PFL there are two important informal links:

- Those governments with PFL directors are in a privileged position for access to information and views;
- Governments will directly approach PFL management for information on particular points.

c. Shareholders

Shareholders' meeting is usually held at the same time as the RSC. The directors' report to the shareholders also serves as the basis for RSC discussion.

d. The PFL Board

The Board of PFL currently has a directorship of seven [7] members with alternates. They are appointed by regional governments with equity interests and these nominees are appraised by the RSC before they are finally selected as directors. The meetings are conducted on a quarterly basis with varying meeting locations. Normally, the most convenient location changes depending on board preferences. The attendance register is very good with alternate directors attending on occasions. Board agenda and papers are circulated in advance with the attendance of the general manager PFL and finance director who is also the company secretary. The duration of the meeting is normally more than a day.

The principal functions Board pertains to the following:

- To implement the general policies of the RSC;
- To appoint a general manager who shall be the chief executive officer of the company and to fix the terms and conditions of his / her employment;
- To advise and direct the general manager in the general management of the company;

- To receive the annual or interim reports of the general manager on the operations of the company and to transmit such reports to the Council and to all regional members of the company;
- Approve the frequency of routes and scheduling of the services to be provided by the company;
- Ascertain and authorize the number, type and class of ships to be operated;
- Ascertain and approve general charter rates.

e. Pacific Islands Forum

The secretariat role of the Pacific Island Forum in relation to the SPF and the RSC is unambiguous. In relation to PFL the matter is less clear and has been the subject of some correspondence between PFL and the PIF. The RSC considered the relationship in 1979 and agreed, "that the PFL is directly responsible to the Council and the Council to the Forum. The relationship between the PIF and PFL devolves from PIF's role as the executive arm of the Forum and as secretariat to the Council [Touche Ross & Co., pp.102 - 108, 1981].

2. Running Costs, Overhead, Etc.

**Pacific Forum Line
Summary Profit & Loss Statement
For the Three-Year Period 1978 - 1980**

	1978		1979		1980	
	WS\$m.	%	WS\$m.	%	WS\$m.	%
Gross Revenue	1.7		4.5		16.1	
Operating Costs						
Charter hire	0.90	32	2.00	29	4.40	21
Equipment costs	0.10	4	0.80	11	4.20	20
Fuel costs	0.30	11	1.20	17	3.50	17
Loading costs	0.60	21	1.40	20	3.20	15
Discharging costs	0.40	14	0.70	10	2.90	14
Port costs	0.30	11	0.60	9	2.40	12
Other costs	0.20	7	0.30	4	0.20	1
Total Operating Costs	2.80		7.00		20.80	
Total Operating Profit / (Loss)	(1.10)		(2.50)		(4.70)	
Administration Costs	0.30		0.60		1.20	
Net Profit / (Loss) for Period	(1.40)		(3.10)		(5.90)	

The summarized profit and loss statement clearly depicts the financial status of the PFL during the first three years of operation. The subject regional entity experienced cash flow problems as its operating and administrative costs exceeded gross revenue over the subject three-year period. There could be a few basic observations that can be deduced from this scenario:

- There was obviously limited capital and working capital funds pumped initially into the project and this is reflected in the cost of hiring capital items [ship charter and equipment], which encompassed the highest proportion of operating costs as a result of under-capitalization;
- The service-mix of the initial routes undertaken was summarily non-viable despite the profitability of some routes. This further suggests that there were demand-side limitations, which implies that some destination and return voyages were carrying insufficient capacity. This unprofitable route structure is clearly reflected in revenue shortfalls being generated in servicing and operating these routes;
- The loading and discharging costs was the second highest portion of operating costs implying great inefficiencies in support infrastructure in most destinations that also contributed to increasing port costs.

On another dimension, there were some major underlying market-access factors that contributed to the initial problems that eventuated during the embryonic period of PFL's operation. These market realities were beyond the cogitation of skilled planners at that time – even after numerous studies and processes were involved.

A major factor that initially underpinned PFL's struggling financial performance and its ensuing efforts to keep afloat during its infant years was due to the immense level of market competition it had been subjected with. The unintended ignorance of market realities manifested itself through cash flow problems, recurrent operating losses and a-near total collapse. In fact, it had to operate for at least a decade before it could sustainably generate and identify a niche market for its services. When considering the time frame it had to operate in, to realize an enabling market, PFL had to spend immensely to buy a market share and a niche to sustain its operations during these initial years of operations.

After having incurred drastic non-profitable operating results over a sustained number of years, another study was commissioned by the Forum to assess and evaluate PFL's overall operation and to ascertain measures that required incorporating to move the company away from its recurrent dismal financial performances.

The findings by consultants, Touche Ross & Co. and adopted by the Forum leaders' ascertained major weaknesses which required urgent redressing - the company was highly undercapitalized, the convoluted routes were not viable and trade going south incurred huge losses. In a nutshell, the regional shipping line was basically trying to be all things to everybody.

The other major changes that were conclusively recommended by the British consultants which required urgent undertaking included the following:

- A long-term business plan;
- Full capitalization of PFL to strengthen its balance sheet and also enable the company to compete for commercial loan finance;
- Surplus leased equipment, particularly containers be returned and purchase of containers would greatly improve trading results;
- PFL needed to bring agency work in-house instead of letting it out to external organizations;
- Relocation of head office from Samoa to Auckland due to the high costs, operational and organizational locational inefficiencies, etc., that were inherent in operating out of an economically and strategically substandard locality;
- Need to have a complete overhaul of PFL's tariff structure to curtail excessive discounts for freight forwarders and concessions to other shippers.

These major strategic changes were readily accepted and implemented however, the Forum decided against suggestions to delegate the RSC's supervisory authority to governments and having the company's board membership selection criteria changed from political appointments to selection of board candidates with commercial expertise.

Strategic changes were undertaken to make PFL viable once the company was properly capitalized through an EIB loan. Container hiring fees were too high and vessel charter rates were above world market prices. PFL capitalized on purchasing its own containers and the entity successfully renegotiated vessel charter rates with contributing member countries, despite initial rejections. The company rationalized its shipping operations and operated initially on a few core / viable routes. PFL increasingly gained a foothold on its market niche and after solidifying its grip on the targeted niche, it expanded into ancillary parts of the business. After these strategic changes were fully incorporated, PFL has operated viably and is in a sound financial position to withstand the vagaries of market competition. PFL has operated without any funding from member countries since. The entity had a commercial focus.

It took more than a decade of realignment, injection of debt capital, renegotiating vessels charter rates, relocation of head office operations, regional and international intervention, etc., before PFL was able to operate effectively.

On another front, the sustained regional cooperation [and at times publicized boardroom disputes] that existed on the running of PFL enabled the subject company to go through the doldrums, despite the gravity of the exposure the regional company was in. This indicates that regional cooperation should always be pursued continuously if a project dictates that regional countries needs to pool resources to realize the establishment of a common organization.

If individual island countries were uncooperative in and during the PFL saga, the Pacific island states development status – especially with regards to economic and trade, would have been gravely compromised. The price that would have eventuated would attest to a significant deceleration in the development pace and standard that we would have liked to achieve.

E. The Qualitative and Quantitative Costs and Benefits – of the Regional Shipping Services Over the Progression of the Project.

1. The Qualitative Benefits

The qualitative benefits are benefits that have been enjoyed by the exporters, the island economies and the importers, as a result of the introduction of 'dedicated' two-way regional shipping services that cannot be tagged with a monetary value. The qualitative benefits of initiating a regional shipping line over the progression of the project includes the following:

- Economies of scale – provision of larger containerized vessels that had greater carrying capacity and relatively faster than the ageing fleet that was servicing the region prior to the establishment of PFL;
- Rationalized timetables;
- Employment opportunities for islanders;
- Improved port facilities;
- Improved shipping and trade facilitation services;
- Increased foreign exchange earnings;
- Reduced dependency on external shipping;
- Customer service improvements to sales channels and resellers;
- Improved market penetration propensities due to consistent shipping services;

- Expanded scope of exporting perishable and marine products due to provision of reefer containers;
- Increasing level of control on transportation of goods;
- Increased and improved regional trade, economic and political co-operation;
- Increased independence in terms of reduced dependence on totally owned foreign shipping operations.

2. The Qualitative Costs

The qualitative costs are costs that have been incurred by the shipping company, shipping agents, exporters, importers and the island economies, as a result of the introduction of regional shipping services that cannot be tagged with a monetary value.

The qualitative costs of initiating a regional shipping line over the progression of the project includes the following:

- High management staff turnover that affects regional lines performance;
- Inappropriate selection of head office locality – communication difficulties, isolated from main revenue sources, inability to attract high quality staff, high cost of convening board meetings;
- Politically untenable decision-making compromising commercial viability;
- Under-rating market competition;
- Politicized institutional structure contributing to indecisive decision-making during frantic periods;
- Delayed or total elimination of specific development projects accruing to other sectors that could have benefited from Australian bilateral aid funding that were diverted to bail out PFL financially;
- Negative publicity of forum leaders' conference room disagreements and outbursts over PFL issues that strained regional diplomatic relations.

3. The Quantitative Benefits – of the Regional Shipping Services Over the Progression of the Project.

The quantitative benefits that have been realized through the introduction of a dedicated two-way liner service to the regional forum member countries have far exceeded the costs entailed in operating the liner.

The aggregated net benefit over the subject study period was New Zealand dollars (NZ\$)3.7 billion. The key 'benefit' driver under this model pertains to trade benefits and this includes foreign exchange income – private and public sector, employment generation, tax receipts, infrastructural / systems developments, technology transfers, product / service exposures, international market penetration, etc.

The other revenue drivers are primarily the income generated from existing capacity [gross income generated from regional liner services], support infrastructure, dividends received and profits generated.

4. The Quantitative Costs – of the Regional Shipping Services Over the Progression of the Project.

The quantitative costs that have been realized through the introduction of a dedicated two-way liner service to the regional forum member countries have been far lower than the revenue generated in operating the liner.

The aggregated net cost over the subject study period was NZ\$1.2 billion. The key 'cost' driver under this model pertains to the cost of operating the existing capacity and this includes group administration, operating and financial costs.

The other major cost driver is primarily the opportunity costs [foregone development potential in other sectors due to capitalization of funds in the maritime transport infrastructure, foregone aid facility into other potential sectors, etc.], whereas the other costs emanating from net losses make up a minimal contribution.

5. The Quantitative Costs and Benefits – Including Capacity, Key Constraints and Overall Profitability – of the Regional Shipping Services over the Progression of the Project

The cost-benefit analysis that has been undertaken in this study should be viewed as providing an indicative picture of the historical cost-benefit position under which the PFL operated throughout the twenty-seven [27] year period. The justification of underlining it as an indicative position stems from the fact that the primary data being used from 1978 to 1986 to generate this cost-benefit analysis is historical and its completeness is questionable given the lapse in time and the integrity of primary data being used to ascertain the subject analysis. The figures attached to the derived benefits that are external from the subject organization [e.g. trade benefits, economic multiplier effects and other positive externalities] are estimates and their exact values cannot be accurately gauged given the time lapse. The difficulty in ascertaining associated costs and the different cost accounting approaches being undertaken during those periods cannot be accurately ascertained, for example how costs are being amortized.

However, it must be stated that wherever estimates are being introduced, their ascertainment are based on business principles of prudence and their values are not materially overstated or understated.

On another token, the figures used since 1987 is, to a major extent, accurate. However, the reader must take note of the assumptions used and carefully note the major factors needing consideration when assessing / evaluating the cost-benefit analysis of PFL.

F. Overall Assessment of the Net Quantitative and Qualitative Cost-Benefit of Pooling Regional Resources in the Shipping Sector in Retrospect

The revenue generated by the liner itself, the trade and economic benefits accruing to regional island member countries [including Australia and New Zealand], the dividends received, the profits generated and the socio-political advantages gained through the development of this regional entity are indeed enormous. The elimination of a 'total-dependency' syndrome on foreign regional shipping services to facilitate trade and commerce in the islands, and to the region, were significant milestones and contributions provided by PFL in facilitating and

expanding the capacity and capability of forum members to participate in the global marketplace is indeed noteworthy.

The aggregated level of capitalization and turnover undertaken by regional forum companies engaged in global trade far exceeds NZ\$3 billion over the subject 27-year period and the level of tariff income in terms of duties and other import / export levies also surpass this subject figure. Furthermore, the various taxes paid by forum resident companies involved in global trade – PAYE, VAT, company tax, capital gains tax, property tax, tariffs on equipment / machinery offshore purchases, etc., signifies the enormous benefits that have accrued to public coffers over the study period are indeed exceptional. The increasing level of 'intra-regional' trade being facilitated through the operation of PFL further justifies the significant benefits – social, economic and political – that the region stands to benefit from through the operation of this regional shipping institution.

All the sectors of regional island countries have directly or indirectly benefited from the services provided by PFL. These positive externalities have significantly contributed to the development and deepening of these various sectors in the region. In this context, many broad-based initiatives would not have materialized to the stages they are at now, had it not been for the critical support infrastructure being provided by PFL's containerized maritime infrastructure.

In retrospect, the very nature and vulnerability of Pacific island states to external trading forces would definitely be compounded had the island leaders together with New Zealand and Australia ignored the precarious conditions at that time. In essence, they took stock of the situation and established a visionary position that makes the region proud of what it has become of today.

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Retrospective Cost-Benefit Analysis

Airline Services
Air Pacific Limited

Cost-Benefit Analysis for Nine-Year Period

Major Factors Needing Consideration when Assessing/Evaluating Cost-Benefit Analysis of PFL

1. Airlines used in 1960's-80's considerably differ from those used in the recent past periods.
2. Data collection during start up period cannot be accurately and comprehensively ascertained due to time constraints.
3. Air Pacific's contribution/benefits to SPIEs tourism trade and general development is only limited to its market share of the regional aviation business.
4. Subject company is highly exposed and is at the mercy of foreign exchange fluctuations which affects revenue earnings, US Dollar payments such as fuel, aircraft leasing, airport handling charges and the like.
5. Foreign currency transactions are translated to Fiji dollars at the rates of exchange published by IATA at transaction date.
6. Air Pacific does not enjoy a monopoly, thus it faces constant pressure on margins and a limited opportunity to pass on costs to customers.
7. Air Pacific needs the ability to react swiftly to unforeseen problems due to the highly volatile nature of the industry it exists in, thus strategies developed to remedy these issues can be costly which can result in significant performance swings [from profitable positions to losses] in a very short span of time.
8. The volatile nature of the subject industry requires Air Pacific to undertake significant internal investment requirements to realize fleet flexibility, capacity and business growth through well articulated planning and forecasting. Should this investment be significantly undercapitalized, business performance will be greatly undermined. This would impact on the overall value of the business to Shareholders.
9. Due to the company's reliance on a relatively small number of significant assets, being the aircrafts, the exposure to disruption of business is increased.
10. Dividend recommendations are considered on an annual basis due to the volatile nature of regional and international airline operations.
11. The endogenous variables pertaining to the costs and benefits of undertaking regional aviation services are indicative figures as their ascertainment cannot be accurately quantified.
12. All costs and benefits that have been realized pre-1995 period have been aggregated and allocated into the year 1995.
13. Dividends proposed or paid from 1995-1998 has not been accounted for due to non-availability of financial information.
14. The gross tourism earning for the 2004 period is for the first six months only and data for the last six months are not available [WIP].

Assumptions

Benefits

1. Profits realized are categorized as other benefits.
2. Tourism and trade benefits have been ascertained by multiplying the gross revenue generated multiplied by an initial multiplier of 40% and 20% thereafter.
3. The aggregated tourism earnings from 1983 to 1994 have been included in the 1995 period.

Costs

1. Opportunity cost is calculated at 120% of the capital contribution of regional member countries during investment year and 20% of contribution over the subject period due to foregone positive externalities that could have been derived had these funds being used for public health, education, roads, etc.
2. Losses incurred are categorized as costs [other costs].
3. Opportunity costs have been ascertained by taking 120% of total capitalization level in the subject year and 20% thereafter for the foregone positive multiplier.
4. Tourism and trade costs have been assessed as 40% of tourism trade benefit figures [including the 1983-1994 period aggregated in 1995].

F\$000

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
Capital Costs											
Aircraft, Property, Plant and Equipment	119,599			1,424	85,280	107,311	2,719	2,163	5,333	9,722	333,551
Subsidiary investments					2,293	510,076	458	180	422		513,429
Total Capital Costs	119,599	0	0	1,424	87,573	617,387	3,177	2,343	5,755	9,722	846,980
Group Costs											
Group admin., oper. & fin. costs	176,374	200,105	209,173	226,667	286,728	360,625	305,701	348,028	382,362	387,061	2,882,824
Opportunity costs	143,519	23,920	23,920	25,629	130,717	784,008	170,433	170,068	174,631	180,542	1,827,387
Tourism / trade costs	2,284,800	558,800	433,520	472,160	516,880	547,840	583,680	629,120	680,240	735,040	7,442,080
Other costs				3,586	4,000		45,772	15,315	20,742	19,088	108,503
Total Group Costs	2,604,693	782,825	666,613	728,042	938,325	1,692,473	1,105,586	1,162,531	1,257,975	1,321,731	12,260,794
Total Costs	2,724,292	782,825	666,613	729,466	1,025,898	2,309,860	1,108,763	1,164,874	1,263,730	1,331,453	13,107,774
Benefits											
Revenue	189,097	214,259	220,869	236,612	309,279	391,066	266,145	357,703	407,502	421,699	3,014,231
Dividends received				1,941	4,566	2,609	3,914			3,262	16,292
Tourism / trade benefits	5,712,000	1,397,000	1,083,800	1,180,400	1,292,200	1,369,600	1,459,200	1,572,800	1,700,600	1,837,600	18,605,200
Other benefits	12,723	14,154	11,696	9,945	79,057	144,480		5,335	16,693	27,798	321,881
Total Benefits	5,913,820	1,625,413	1,316,365	1,428,898	1,685,102	1,907,755	1,729,259	1,935,838	2,124,795	2,290,359	21,957,604
Net (Cost) / Benefit	3,189,528	842,588	649,752	699,432	659,204	-402,105	620,496	770,964	861,065	958,906	8,849,830

Retrospective Cost-Benefit Analysis

Regional Shipping Services
Pacific Forum Line

Cost-Benefit Analysis for Five-Year Period

Major Factors Needing Consideration When Assessing/Evaluating Cost-Benefit Analysis of PFL

1. Goods moved in 1978 considerably differ from those shipped in the recent past periods.
2. Costs incurred in start-up periods cannot be accurately compared against recent past figures due to inability to accurately quantify exchange rate differentials between different countries during start-up period.
3. Data collection during start-up period amongst SPIEs cannot be accurately ascertained due to inferior data collection capacity and capability.
4. PFL's contribution/benefits to SPIEs trade is only limited to its market share of the regional shipping business.
5. Market share data are indicative only and very dependent on the availability of information. The actual market share can fluctuate on one-off contract cargoes and the level of competitor activity.
6. Subject company is highly exposed and is at the mercy of foreign exchange fluctuations which affects revenue earnings, US Dollar payments such as fuel, charter rates, container leasing and the like. Furthermore, PFL's vulnerability to foreign exchange movements is further aggravated under volatile foreign exchange conditions as a high level of its business is conducted in minor Pacific currencies for which no option to hedge exists.
7. PFL does not enjoy a monopoly, thus it faces constant pressure on margins and a limited opportunity to pass on costs to customers.
8. PFL needs the ability to react swiftly to unforeseen problems due to the highly volatile nature of the industry it exists in, thus strategies developed to remedy these issues can be costly which can result in significant performance swings [from profitable positions to losses] in a very short span of time.
9. The volatile nature of the subject industry requires PFL to undertake significant internal investment requirements to realize business growth, often at short notice. Should this investment be significantly reduced, the business would need to seek external funding to continue to operate in its present manner. This would impact on the overall value of the business to Shareholders.
10. Due to the company's reliance on a relatively small number of significant assets, being the vessels, the exposure to disruption of business is increased.
11. Dividend recommendations are considered on an annual basis due to the volatile nature of regional and international shipping operations.
12. Investment plans and funding requirements are effected on an ad-hoc basis due to the subject volatile conditions the subject business is being exposed to.
13. The endogenous variable pertaining to the costs and benefits of undertaking regional shipping services are indicative figures as their ascertainment cannot be accurately quantified.
14. All costs and benefits that have been realized pre-1987 period [since start-up in 1978] have been aggregated and allocated into the year 1987.
15. The conversion rate used to report financials in NZD from the Samoan Tala is 1.5762.

Assumptions

Benefits

1. Profits realized are categorized as other benefits.
2. Trade benefits have been ascertained by multiplying the total tonnage lifted both ways multiplied by an average consignment value of NZ\$20 per kg with an initial multiplier of 40% and 20% thereafter.
3. It is assumed that 3 million tones have been lifted to and from the region for the first eight years and this has been aggregated into 1987 estimates pertaining to trade benefits. Estimates are conservative as they do not take into account feeder services [to and from] and their multiplier effects as these have been considered in the major routes serviced and their ensuing multipliers.
4. From 1993-2004, the annualized revenue tonnage figures have been used as a proxy for trade benefits flowing to the region through trade and these figures have been effected with the same multiplier formula as in 2 above without the averaged consignment value.

Costs

1. Opportunity cost is calculated at 120% of the capital contribution of regional member countries during investment year and 20% of contribution over the subject period due to foregone positive externalities that could have been derived had these funds being used for public health, education, roads, etc.
2. Revenue and costs that can be accurately captured prior to 1987 [since start-up] have been captured under 1987 aggregates using a year ending average rate of US\$0.56 (calculated over 5-year period since 1983 – NZDUSD Globally – ANZ Bank).
3. Losses incurred are categorized as costs [other costs].
4. Opportunity costs have been ascertained by taking 120% of total capitalization level in the subject year and 20% thereafter for the foregone positive multiplier.

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
NZ\$000																			
Capital Costs																			
Container Vessels	854	854	854	18,054	854	854	854	854	854	854	854	854	854	2,449	2,371				33,122
Support vessel infrastructure	10,714					1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	23,883
Land / Building / Office infrastructure	2,679								529	529	529	529	529	529	529	1,973	3,658	3,658	15,671
Peripherals acquisition	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86			1,376
Working capital	4,465																		
Other Pre-establishment costs				692	692	692	692	692											3,460
Total Capital Costs	18,798	940	940	18,832	1,632	2,645	2,645	2,645	2,482	2,482	2,482	2,482	2,482	4,077	3,999	3,072	4,671	4,671	81,977
																			0
Group & Other Costs																			0
Group administration, operating & financial costs	38,324	34,134	36,064	56,706	47,873	46,906	50,108	42,690	42,949	40,694	40,794	43,978	43,752	43,067	52,309	48,678	45,927	50,598	805,551
Opportunity costs	22,558	4,888	5,076	26,734	9,860	11,402	11,931	12,460	12,989	13,485	13,981	14,477	14,973	16,691	17,413	16,100	19,633	20,567	265,218
Other costs	17,143			2,670	3,170	2,284	4,862	2,517	1,215		2,072			934					36,867
Total Group & Other Costs	78,025	39,022	41,140	86,110	60,903	60,592	66,901	57,667	57,153	54,179	56,847	58,455	58,725	60,692	69,722	64,778	65,560	71,165	1,107,636
Total Costs	96,823	39,962	42,080	104,942	62,535	63,237	69,546	60,312	59,635	56,661	59,329	60,937	61,207	64,769	73,721	67,850	70,231	75,836	1,189,613
Benefits																			
Operating revenue	41,565	38,346	39,358	54,036	44,703	44,622	45,246	40,173	41,734	46,903	38,722	44,333	44,989	42,133	55,032	50,634	48,567	53,944	815,040
Trade benefits	105,000	47,464	36,323	39,931	43,430	46,357	108,870	122,136	186,227	249,414	314,102	374,783	379,233	395,974	410,279	364,685	416,806	429,546	4,070,560
Dividends received										654		404		673	336	979	658	900	4,604
Other benefits	3,241	4,212	3,294							2,895		355	1,237		2,723	1,956	2,640	3,346	25,899
Total Benefits	149,806	90,022	78,975	93,967	88,133	90,979	154,116	162,309	227,961	299,866	352,824	419,875	425,459	438,780	468,370	418,254	468,671	487,736	4,916,103
Net (Cost) / Benefit	52,983	50,060	36,895	(10,975)	25,598	27,742	84,570	101,997	168,326	243,205	293,495	358,938	364,252	374,011	394,649	350,404	398,440	411,900	3,726,490