

# An Examination of the Risk Severity of Kingfisher Airlines Ltd. (KFA) Pre- and Post-acquisition of Deccan Aviation Ltd. (DAL)

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*The open sky policy promulgated by the Government of India encouraged Kingfisher Airlines Ltd. (KFA) to commence operations in 2005 as a Full-Service Carrier (FSC). But rivalry from Low-Cost Carriers (LCCs) compelled Vijay Mallya, the Chairman of United Breweries (Holdings) Ltd. (UBHL) to takeover Deccan Aviation Ltd. (DAL) in 2007, through his wholly owned subsidiary Kingfisher Radio Ltd. (KRL). This gave him the opportunity to operate into LCC brand Air Deccan. The acquisition deal intended to attain efficiency in operations maintenance and reach break-even quickly. However, due to increasing fuel prices, debt and improper management strategies, profitability could not be attained by KFA. This study aimed to recognize the risk severity and effectiveness of the acquisition strategy by assessing the financial and operational risks of KFA. Financial data of KFA for five years pre- and post- the acquisition event were used and tested using applicable statistical techniques. In total, eleven ratios were computed, out of which seven ratios viz. Equity Multiplier, Interest Coverage (two ratios), Net Fixed Assets to Net Worth, Proprietary, Total Debt to Net Fixed Assets and Total Liabilities to Net Worth were negatively affected post-acquisition. This clearly indicated that the decision to acquire DAL and resource utilization by KFA proved futile. Implications for practice from this experience have been mentioned.*

**Key Words:** Acquisition, Break-Even, Financial Risk, Kingfisher Airlines, Operational Risk

## INTRODUCTION

To be successful, organizations have to constantly process relevant data to mitigate risk as and when necessary and accordingly integrate into the firm's system. Essentially, firms have to accept change and operate suitably to survive in the ecosystem. Therefore,

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to survive the effects of a dynamic and competitive environment, organizations may use Mergers and Acquisitions (M&As) as a device to achieve high growth, high market share, or reduce competition.

It helps a firm to persistently endure in the environment, provided that it is well-timed and the risks involved are accurately anticipated. Not all M&As are successful; 83% of mergers fail because the expected value is not created. Conflicting cultures, ambiguous plan of action and imperfect integration of the two businesses, lead to failure of mergers (Bradt, 2015). This implies that the risk involved in the application of the strategy is not ascertained realistically. The objective of this research is to demonstrate the severity of risk in premature application of a strategy to attain operational efficiency and break-even quickly. This is achieved by analyzing the financial data of KFA before and after acquisition of Deccan Aviation Ltd. (DAL).

The aviation industry generally operates in a highly turbulent environment with ever-changing customer expectations, competition tactics and government rules (Riwo-Abudho, Njanja and Ochieng, 2013). The Indian aviation sector was vitiated with world economic downturn, rising fuel prices, bureaucracy and high taxes (Air-India Limited forum, n.d.). Therefore, to ensure proper development of the industry, Government of India rescinded Air Corporation Act, 1953 and launched the open sky policy in the 1990s with an objective to attract private players. This occasion encouraged new business models to evolve and fostered healthy competition. Damania, East-West, Jet, Sahara, Modiluft and NEPC, Air Deccan, IndiGo, Spice Jet, Go Air, KFA and so on, entered the market.

Despite the support from the Government, the industry was afflicted with high operational costs and financial costs. Fuel expenses consumed 47 percent of airline revenues, and huge financial debt and low liquidity resulted in financial costs (Prasad, Singh and Vishwanath, 2015). Airlines were expected to survive and continue to compete under such conditions. These carriers could not increase air fares, as the target customer base was price sensitive. Evidently, to obtain higher market share and sustain in a capital-intensive and competitive industry, it is essential and inevitable to suitably apply and schedule an ideal strategy.

Therefore, to contend with rising competition, Vijay Mallya, the chairman of UBHL acquired DAL in the year 2007 through KRL. After the acquisition, KFA faced financial and operational problems (Kumar and Anand, 2013; Mukhopadhyay, Dey, Bannerjee and Dutta, 2013; Vasantha, Vasantha and Thiayalnayaki, 2013; and Aggarwal and Singh, 2015), which are posed as risks in the study. Therefore, an attempt is made to investigate the severity of Financial Risk and Operational Risk before (i.e., 2002-03 to 2006-07) and after (i.e., 2008-09 to 2012-13) the application of the acquisition strategy by computing pertinent ratios. The study is an ex-post analysis to identify the reasons for corporate failure by analyzing and computing various ratios.

## THE INDIAN AVIATION INDUSTRY

According to Association of Private Airport Operators (APAO), (n.d.), the history of Indian civil aviation dates back to 1911, when Piguet piloted world's first Airmail from Allahabad to Naini. Construction of airports at various cities and instituting Civil Aviation Department and Aero Club of India, propelled the industry to grow. The industry grew to become more organized and structured after the formulation of Indian Aircraft Act in 1937 and Air Corporation Act, 1953. But due to increased competition and demand, the Air Corporation Act, 1953 was replaced with open sky policy in the year 1991. This policy reduced the level of government involvement and provided an opportunity for new players to enter, compete and capture the market.

East-West Airlines was India's first private airline to commence its operations, (APAO, n.d.). It was followed by Damania Airways, Modiluft, Jagsons, NEPC Airways, Gujarat Airways and Span Air, (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013). LCC – a new business model – emerged after the launch of the new policy that aptly catered to the needs of the price sensitive class of travelers. In 2003, Air Deccan was the first carrier to acquaint the industry with this model (Aggarwal and Singh, 2015). Apparently, the model was successful in terms of market share and passenger growth rate. Its success encouraged other players such as SpiceJet, IndiGo, Kingfisher, Paramount, and GoAir, to adopt a similar strategy, which increased industry rivalry, (Krishnan, 2008). Over the years, the industry became vulnerable to many factors which directly impacted its operations. It included escalating Aviation Turbine Fuel (ATF) prices, huge losses and costs, rivalry, liquidity setbacks, labor costs, scarcity of well-trained pilots, tax policies, low revenues and rising debt (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013).

However, despite all the operating intricacies, there are a vast number of growth opportunities for the industry as there is huge growing demand expecting service (IBEF, 2018). Today, the government's contribution to civil aviation is limited to the development of streamlined airports in the country with a view to improve infrastructure and monitor the activities of entities in the industry in order to safeguard the interest of stakeholders (APAO, n.d.). The government has introduced the Regional Connectivity Scheme (RCS) which is also known as *Ude Desh ka Aam Naagrik* (UDAN), which translates to "enable the common man of the country to fly." The scheme is intended to enhance connectivity and efficiency of under-served and unserved airports. The scheme selected five airlines to fly on 128 routes connecting 70 airports of which 12 are under-served and 31 unserved ("What is", 2017).

## THE OPERATING ENVIRONMENT

The Indian aviation industry is susceptible to various factors that essentially aggravate the operations of the carrier, hence escalating operational costs. Fluctuating international ATF prices is regarded as the sole factor significantly impacting the operational costs, (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013; Prasad, Singh,

and Vishwanath, 2015; Ministry of Civil Aviation, n.d.; “Slash taxes”, 2017). Promotional activities of domestic oil companies and national tax policies have further burdened the carriers’ profitability (Ministry of Civil Aviation, n.d.). Owing to increasing capacity expansion plans, crude oil prices rapidly increased in 2008 from USD<sup>1</sup> 100 per barrel to USD 140 per barrel in a span of six months. Moreover, fuel prices in India were excessively levied and therefore ATF prices in the homeland were 60 to 70% expensive than international prices (Prasad, Singh and Vishwanath, 2015) (see Table 1).

Location	Price/Kilolitre (USD) 20
India	1,400
Singapore	825
Bangkok	880
Kuala Lumpur	810
UAE	840
<i>Source: Open Government Data (OGD) Platform India (2015)</i>	

Besides the inflated ATF prices, carriers are beset with huge tax burden especially on Maintenance, Repair and Overhaul (MRO), (Srivastava, 2015). International Air Transport Association (IATA) recommends the country to reduce tax burden on the aviation sector for it to prosper and develop. The implementation of GST is insufficient as the financial burden on the sector is much extensive. Additionally, airlines incur various airport charges, navigation, landing and parking costs, which are almost unmanageable (“Slash taxes”, 2017).

Policies and political and economic conditions in the country and the world have repercussions on demand and financial condition of all allied sectors and firms. Natural disasters, speed of development in technology, an epidemic of flu and the like also impact the airline industry. Despite the constraints, the industry still has the potential to grow based on the strategic priorities of the government, allocation of adequate budgets, embracing a strong culture of abrupt recruiting and training practices, mobilize seasoned personnel, and proper administration and continuous review and reform of procedures and policies in organizations (Ministry of Civil Aviation, n.d.).

#### PROFITABILITY AT RISK

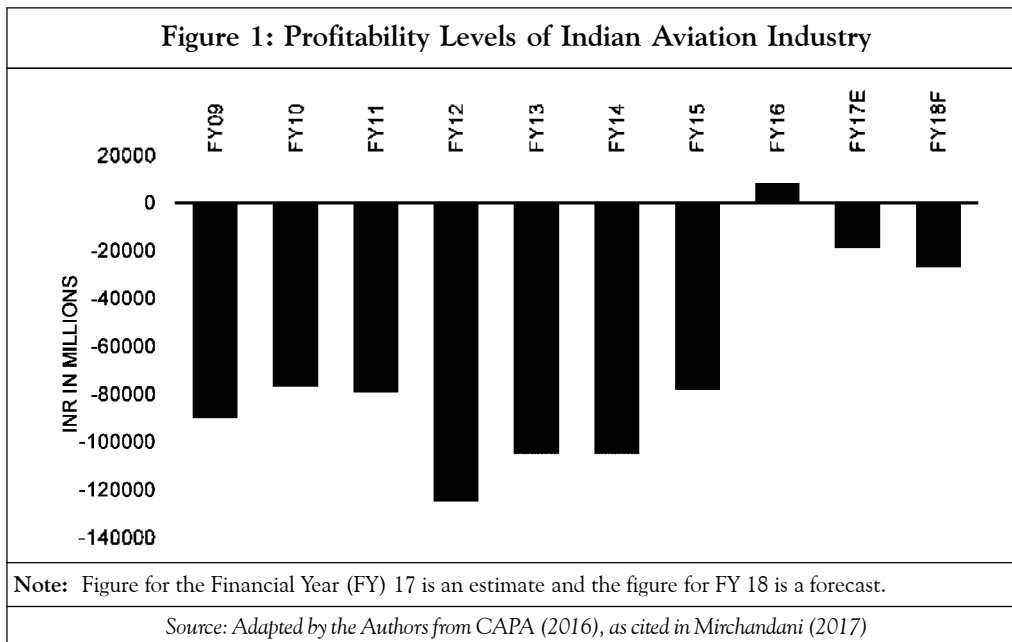
Evidently, the Indian carriers function in an intricate and risky environment that prevents it from making adequate profits. According to Centre for Asia-Pacific Aviation (CAPA) report, the profitability of airlines is subjected to constraints of the operating environment which also include moderated air fares and vigorous borrowing plans. The profitability of Indian aviation industry is in the red since 2008-09 and is estimated

<sup>1</sup> USD: United States Dollar.

and forecasted to remain feeble for the FY17 and FY18 respectively (see Figure 1) (Mirchandani, 2017). According to recent estimates by Information and Credit Rating Agency (ICRA), the aviation sector will be incurring accumulated losses of up to INR<sup>2</sup> 3,600 crore (36 billion)<sup>3</sup> for Financial Year (FY) 2018-19 compared to INR 2,500 crore (25 billion) in FY 2017-18, which is attributable to escalated ATF prices, controlled fleet expansions and meagre earnings (Kaushik, 2018).

Essentially, the industry is experiencing profitless growth and the risk involved at this juncture would be to implement expansion plans especially with inadequate capital as this would make any airline prone to external shocks and resilience would be impractical. The sub-prime crisis is a suitable example of an event that severely impacted the industry's growth. It was a global effect which resulted in huge losses and afflicted Kingfisher Airlines and Paramount Airways. Should such events duplicate, the industry is much less immune to withstand any global crisis in the future, (CAPA – Centre for Aviation, 2016).

Yet, aircraft fleet expansion is on the rise with 880 aircraft on request of which 600 are to be consigned over the next ten years costing USD 30 billion. The industry is expanding at an unassured rate of 15-20% annually. However, a recent study conducted by HSBC on three Indian players, namely: SpiceJet, Jet Airways and IndiGo concluded that the LCCs are the most lucrative in the industry. It also stated that in the following four years, growth in traffic (14.5%) will surpass the growth in capacity (13.5%), implying greater yields, (“Indian low-cost”, 2017). The Indian aviation industry during



<sup>2</sup> INR: Indian Rupee.

<sup>3</sup> 1 crore = 10 million.

2014-17, recorded growth in revenue at 5.4% CAGR; some domestic carriers managed to increase traffic with attractive discount offers which only helped in securing higher market share but were in vain to prove revenue. Mainly because operational surplus is vulnerable to rising ATF prices (Sabnavis and Nainan, 2018). Therefore, IATA counselled prudence against heightened uncertainty in relation to evolving global transactions that could bring about unbearable risks to the airline industry.

Basically, the industry's profitability for the FY19 is dependent on the degree of costs that can be passed on to the passengers, the rising fuel prices, depreciating rupee (Kundu, 2018) and may also include labor costs, operational costs and the MRO setback (Sabnavis and Nainan, 2018). The only element that can safeguard the carriers' profits is adopting an innovative pricing policy (Mirchandani, 2017).

## **KINGFISHER AIRLINES' CRISIS**

### **INCEPTION**

Vijay Mallya was elected as Chairman, in 1983, by the shareholders of the UB Group. Mallya used this opportunity to diversify the UB Group business by entering into various sectors such as pharmaceuticals, paints, food products, carbonated beverages, TV channels, IPL and so on, making it the largest conglomerate. He also entered the aviation sector and launched Kingfisher Airlines in the year 2003 (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013). Krishnan (2008) stated that primarily, the carrier was advertised as a "value" aircraft carrier but later Kingfisher swiftly transformed into a full-service airline. Therefore, KFA officially started operations in 2005 as a premium full-service fleet in the midst of rapid development of the industry.

With an intent to offer passengers an extraordinary flying experience he introduced In-Flight Entertainment (IFE) systems on inland flights, 100 percent e-ticketing, fine cuisines and so on (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013; Krishnan, 2008). This served as a Unique Selling Point (USP) or a competitive advantage for the carrier, making it distinctive from all other players in the industry. Krishnan (2008) further elaborated in his study that the carrier mainly concentrated on positioning the Kingfisher brand through active advertisement efforts and sponsored extensive sport events. It aimed to target the frequent air travelers of Jet Airways by providing them exciting and attractive offers, such as the "Mega Mile Move." It was an offer to relay Jet Airways' frequent flyer miles to Kingfisher. This was a successful move by Kingfisher as it resulted in increase in market share and capacity expansion but was not promising enough as the industry had several setbacks.

### **KINGFISHER RED**

The Indian aviation sector was inherently weak in operational terms. Setbacks such as airport landing and navigation costs at Indian airports were 50 percent excessive of

international charges. Apart from the airport charges, the carriers had to expend on ATF, for which they had to pay an extravagant amount. ATF was excessively taxed as aviation was viewed as a completely opulent industry (Krishnan, 2008). Essentially, this implied the importance of not only conducting a priority check on costs but maintaining size and market share to ensure survival in the competitive market. Prasad, Singh and Vishwanath (2015) revealed in their case study that Kingfisher intended to engage in massive capacity expansion with an aim to reign the airline industry. Mukhopadhyay, Dey, Bannerjee and Dutta (2013) further elaborated in their study that one month after its successful launch, KFA expanded its fleet size to 15 aircrafts with a contract value of USD 3 billion (300 crores). Soon after it commenced its operations, KFAs' existence was jeopardized by growing competition from LCCs. Moreover, Mallya's vision to fly on international skies could be realized only after rendering five years of domestic service. Therefore, the airline required a suitable plan to survive.

In 2007, KRL acquired DAL, with the motivation to create synergies in aircraft spares and maintenance. This was possible since both airlines maintained same aircraft fleets (Krishnan, 2008). This consolidation was expected to translate into enhanced efficiencies and financial performance and cost reduction, (Chava, n.d.).

Air Deccan was qualified to fly on international routes in 2008, hence it was an opportunity for Kingfisher to employ the Deccan brand for the same and increase total market share to 20.8%. The acquisition deal was realized for INR 550 crore with 46% stake in Deccan Aviation. This acquisition deal took form in three phases: In the first phase of acquisition KRL acquired 26 percent stake in DAL. In the second phase, KRL along with UBHL and United Breweries Overseas Limited (UBOL) – the Persons Acting in Concert (PAC) – acquired 20 percent stake through an open offer with stocks at INR 155/- each, which was a premium of 10 percent over the trading price to DAL shareholders. In entirety, KRL acquired almost 46 percent stake in DAL. However, on December 26, 2007, KRL acquired an additional 2.95 percent (i.e., 4 million shares) stake in DAL but the total stake was still under 50 percent. Overall investment made in this acquisition was about INR 1,000 crore (10 billion). The settlement led to the creation of a twin brand: Kingfisher Airlines and Kingfisher Red (i.e., LCC after merger). Kingfisher Red targeted price sensitive passengers on domestic routes. KFA secured the highest market share among the industry players as it winged 1 million passengers in 2009 (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013). Prasad, Singh and Vishwanath (2015) indicated that in the same year, KFA failed to honor loans and interest to financial institutions; it experienced huge losses and erosion in Net Worth.

#### AFTERMATH OF THE ACQUISITION

Besides Kingfisher, Jet Airways and Air India had adopted the acquisition strategy on Sahara Airways and Indian Airlines respectively. Despite the acquisition moves, passenger traffic dropped below 20 percent for the calendar year 2007, implicating



meagre profits. Kingfisher and the acquired LCC were reporting loss of INR 3 crores (30 million) every day. The same was the state with other acquirers and airlines in the industry. ATF prices soared at the end of May 2008 and were accountable for further deteriorating the financial conditions of airlines in the industry including Kingfisher Airlines (Krishnan, 2008). Beyond the external complexities and synergies recognized with the acquisition, the inevitable fact was Air Deccan was a loss-making firm, carrying losses of INR 725.01 crore (7.25 billion) as of September, 2005. As a result, debt of the merged airlines multiplied by 506% (see Table 2) on March 31, 2009 (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013). This was an acquisition deal between two financially weak entities, making them less immune to the global recession and escalating ATF prices.

Kingfisher adopted a rebranding exercise by introducing the LCC as Kingfisher Red (Batra, 2014). To manage the colossal debt and losses, KFA was decisively downsized by eliminating e-ticketing services and outsourced it to global distribution systems (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013). However, the measure taken to resolve the issue made it difficult for passengers to differentiate the services between the two. Consequently, air travelers preferred other LCCs such as Indigo and Spice Jet, due to KFAs' ambiguous business model (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013; and Batra, 2014).

Aggarwal and Singh (2015) revealed in their study that KFA was experiencing losses of over INR 4,283 crore (42.83 billion) as of March 2011. The aftermath of the acquisition, led to further decline in market share and fleet size. According to Mukhopadhyay, Dey, Bannerjee and Dutta (2013), Kingfisher obtained a market share of 16.7%, which was a drop of 15.17%, after a few years of merger. Its fleet size as of October 2011 reduced to 66 from 85 in December 2008. As a measure, KFA modified the business model by removing the Kingfisher Red brand and renovated the fleet into a dual class, Full-Service Carrier. However, attempts to rectify the problems were ineffective; finally, by October 2011 KFA was incurring high operating costs among other players in the industry.

The sub-prime crisis escalated ATF prices and accumulating debt and interest rates aggravated KFAs' revenues. As denoted by Prasad, Singh and Vishwanath (2015), KFA had reported accumulated losses of INR 42 billion for the period 2005 to 2010. It had to settle on a debt recast package. However, Mukhopadhyay, Dey, Bannerjee and Dutta (2013) indicated that the company's recast package was a temporary support for KFA. The interest rates were reduced to 11% after debt restructuring but escalated to 14% in May 2012, due to KFAs' operational weaknesses. Interest rates were consistently rising, demonstrating the financial distress KFA was experiencing.

#### KFA IN FINANCIAL DISTRESS

Vagueness in the business model strategy caused passengers to prefer traveling with other LCCs in the industry. The acquisition and mismanagement of the acquired,



**Table 2: Balance Sheet of Kingfisher Airlines for the years 2002-2013 (A)**

Sources of Funds	INR in crores											
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Total Capital Share	2.00	2.08	15.53	16.20	98.18	135.47	135.80	362.91	362.91	1050.88	1130.75	1361.82
Equity Share Capital	2.00	2.08	15.53	16.20	98.18	135.47	135.80	265.91	265.91	497.78	577.65	808.72
Share Application Money	0.00	0.00	0.00	0.00	0.00	0.00	10.09	8.11	7.48	0.00	0.00	0.00
Preference Share Capital	0.00	0.00	-	-	-	-	-	97.00	97.00	553.10	553.10	553.10
Reserves	3.22	3.18	(1.41)	(2.54)	125.95	249.23	52.99	(2496.36)	(4768.84)	(4002.07)	(6213.15)	(14281.64)
Net Worth	5.22	5.26	14.12	13.66	224.13	384.70	198.88	(2125.34)	(3898.45)	(2951.19)	(5082.40)	(12919.82)
Secured Loans	1.99	7.31	22.62	159.42	448.16	716.71	592.38	2622.52	4842.43	5039.91	5368.76	504.20
Unsecured Loans	1.59	3.85	12.30	125.06	3.50	200.00	342.00	3043.04	3080.17	1870.07	2661.24	8153.44
Total Debt	3.58	11.16	34.92	284.48	451.66	916.71	934.38	5665.56	7922.60	6909.98	8030.00	8657.64
Total Liabilities	8.80	16.42	49.04	298.14	675.79	1301.41	1133.26	3540.22	4024.15	3958.79	2947.60	(4262.18)
<b>Applications of Funds</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
Gross Block	2.30	11.18	27.10	55.25	247.33	340.77	322.33	1891.80	2048.14	2219.27	2193.66	1287.37
Less: Revaluation Reserves	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Less: Accumulated Depreciation	0.30	0.63	1.63	4.52	16.40	33.74	43.55	316.29	493.62	647.39	750.63	575.43
Net Block	2.00	10.55	25.47	50.73	230.93	307.03	278.78	1575.51	1554.52	1571.88	1443.03	711.94
Capital Work in Progress	0.05	0.15	1.22	153.09	286.53	357.62	346.25	1630.95	980.61	0.00	0.00	0.00
Investments	0.10	0.00	0.00	0.45	0.41	0.41	0.00	0.05	0.05	0.05	0.03	0.03
Inventories	2.20	3.87	11.96	36.40	57.26	61.62	48.64	147.25	164.88	187.65	204.79	166.07
Sundry Debtors	3.17	2.78	4.40	8.27	13.06	35.24	27.16	229.84	322.49	440.53	187.59	20.05
Cash and Bank Balance	0.46	2.01	15.98	47.08	181.17	422.05	5.84	49.41	50.91	252.36	182.27	19.05
Total Current Assets	5.83	8.66	32.34	91.75	251.49	518.91	81.64	426.50	538.28	880.54	574.65	205.17
Loans and Advances	5.16	4.79	15.63	47.28	232.03	149.77	832.49	3640.42	4604.31	5800.73	7062.33	1893.92

Table 2 (Cont.)

Applications of Funds	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Fixed Deposits	0.00	0.00	0.00	35.85	75.31	395.00	274.29	122.45	155.56	0.00	0.00	0.00
Total CA, Loans and Advances	10.99	13.45	47.97	174.88	558.83	1063.68	1188.42	4189.37	5298.15	6681.27	7636.98	2099.09
Deferred Credit	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Current Liabilities	4.33	7.73	25.72	108.77	434.05	449.15	687.31	3814.63	3908.03	4232.31	6046.66	6993.49
Provisions	0.00	0.00	0.00	1.07	5.93	6.94	9.52	45.55	46.77	62.11	85.77	79.73
Total CL and Provisions	4.33	7.73	25.72	109.84	439.98	456.09	696.83	3860.18	3954.80	4294.42	6132.43	7073.22
Net Current Assets	6.66	5.72	22.25	65.04	118.85	607.59	491.59	329.19	1343.35	2386.85	1504.55	(4974.13)
Miscellaneous Expenses	0.00	0.00	0.12	28.83	39.08	28.75	16.64	4.51	145.64	0.00	0.00	0.00
Total Assets	8.81	16.42	49.06	298.14	675.80	1301.40	1133.26	3540.21	4024.17	3958.78	2947.61	(4262.16)
Contingent Liabilities	0.00	0.00	0.00	5404.97	8935.97	7485.33	6797.11	27468.70	23135.77	24446.60	27501.22	25229.58
Book Value (INR)	26.12	25.27	9.09	43.96	22.83	28.40	13.90	(83.88)	(150.54)	(70.40)	(97.56)	(166.59)

Source: Moneycontrol.com (2017a)

	INR in crores											
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>Income</b>												
Sales Turnover	19.55	23.42	62.94	305.55	1285.42	1800.21	1456.28	5269.17	5067.92	6359.64	5493.41	501.38
Net Sales	19.55	23.42	62.94	305.55	1285.42	1800.21	1456.28	5269.17	5067.92	6359.64	5493.41	501.38
Other Income	0.05	0.08	4.42	14.73	59.64	342.10	113.62	598.90	(333.30)	135.92	330.50	182.08
Total Income	19.60	23.50	67.36	320.28	1345.06	2142.31	1569.90	5868.07	4734.62	6495.56	5823.91	683.46
<b>Expenditure</b>												
Raw Materials	0.00	0.00	0.00	5.77	36.73	45.94	43.79	51.19	40.89	0.00	0.00	0.00
Power and Fuel Cost	0.00	0.00	0.00	92.98	625.45	979.50	889.30	2602.62	1802.99	2274.03	2945.89	402.17

Table 3 (Cont.)

Income	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Employee Cost	2.03	2.64	7.15	31.76	163.04	247.72	244.96	825.42	689.38	676.01	669.51	349.16
Other Manufacturing Expenses	12.79	13.10	45.50	104.78	425.48	617.56	408.21	1112.85	1108.82	0.00	0.00	0.00
Selling and Administration Expenses	0.00	0.00	0.00	29.13	114.38	146.78	180.39	1062.74	996.85	0.00	0.00	0.00
Miscellaneous Expenses	2.64	4.00	7.88	9.85	33.78	25.11	14.81	167.55	108.58	3512.33	4036.41	2558.32
Total Expenses	17.46	19.74	60.53	274.27	1398.86	2062.61	1781.46	5822.37	4747.51	6462.37	7651.81	3309.65
<b>Operating Profit</b>	2.09	3.68	2.41	31.28	(113.44)	(262.40)	(325.18)	(553.20)	320.41	(102.73)	(2158.40)	(2808.27)
PBDIT	2.14	3.76	6.83	46.01	(53.80)	79.70	(211.56)	45.70	(12.89)	33.19	(1827.90)	(2626.19)
Interest	0.52	1.52	3.87	55.33	250.72	466.05	434.44	2029.33	2245.59	1312.94	1276.34	1436.15
PBDT	1.62	2.24	2.96	(9.32)	(304.52)	(386.35)	(646.00)	(1983.63)	(2258.48)	(1279.75)	(3104.24)	(4062.34)
Depreciation	0.11	0.33	1.12	3.06	13.34	17.67	18.28	133.20	162.8	241.04	341.87	238.78
Other Written Off	0.54	0.79	0.99	5.73	18.94	26.25	18.31	38.39	54.49	0.00	0.00	0.00
PBT	0.97	1.12	0.85	(18.11)	(336.80)	(430.27)	(682.59)	(2155.22)	(2475.77)	(1520.79)	(3446.11)	(4301.12)
Extra-ordinary items	0.00	0.00	(0.04)	(2.74)	0.00	14.09	(0.97)	0.00	31.28	0.00	0.00	0.00
PBT (Post Extra-ordinary items)	0.97	1.12	0.81	(20.85)	(336.80)	(416.18)	(683.56)	(2155.22)	(2444.49)	(1520.79)	(3446.11)	(4301.12)
Tax	0.06	0.50	0.27	(1.32)	3.75	3.40	(494.45)	(546.38)	(700.00)	(493.38)	(1118.08)	0.00
Reported Net Profit	0.91	0.62	0.56	(16.79)	(340.55)	(419.58)	(188.14)	(1608.83)	(1647.22)	(1027.40)	(2328.01)	(4301.12)
Total Value Addition	17.46	19.73	60.52	268.51	1362.13	2016.67	1737.67	5771.17	4706.62	6462.37	7651.80	3309.64
Preference Dividend	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-
Equity Dividend	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-
Corporate Dividend Tax	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-
Shares in issue (Lakhs/Thousands)	20.00	20.80	155.27	31.06	981.82	1354.70	1357.99	2659.09	2659.09	4977.79	5776.47	8087.23
Earnings Per Share (INR)	4.54	3.00	0.36	(54.05)	(34.69)	(30.97)	(13.85)	(60.50)	(61.95)	(20.64)	(40.30)	(53.18)
Equity Dividend (%)	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Book Value (INR)	26.12	25.27	9.09	43.96	22.83	28.40	13.90	(83.88)	(150.54)	(70.40)	(97.56)	(166.59)

Source: Moneycontrol.com (2017b)

Table 4: Financial Risk (FR) and Operational Risk (OR) Ratios – Formulas	
FR and OR	Ratio
	Calculation
1. FR	<b>Debt-Equity Ratio</b> Debt/Equity
2. FR	<b>Proprietary Ratio</b> Shareholders' Funds/Capital Employed
3. FR	<b>Equity Multiplier Ratio</b> Total Assets/Shareholders Eq.
4. FR	<b>Total Debt to Net Fixed Assets Ratio</b> Total Debt/Net Fixed Assets
5. FR	<b>Total Debt to Total Assets Ratio (Debt Ratio)</b> Total Debt/Total Assets
6. FR	<b>Interest Coverage Ratio (A)</b> EBIT or OP/Interest Expense
7. FR	<b>Interest Coverage Ratio (B)</b> EBIT/Interest Expense
8. FR	<b>Financial Leverage</b> % change in Earnings Per Sh. /% change in EBIT
9. OR	<b>Net Fixed Assets to Shareholders' Funds (or Net Worth) Ratio</b> Net Fixed Assets/Shareholders' Funds (or NW)
10. OR	<b>Total Liabilities to Net Worth Ratio</b> Total Liabilities/Net Worth
11. OR	<b>Operating Leverage</b> % change in EBIT or OP/% change in Sales
Sources: NCERT (n.d.); Accounting Explanation (2011); My Accounting Course (2017); Khan and Jain (2014); Ross, Westerfield and Jaffe (2004); Azhagathi and Sathishkumar (n.d.).	

plunged down the demand for Kingfisher Airlines, which intensified the financial burden on the carrier. Post-acquisition EBITDA was negative as there was a surge in borrowing levels from INR 934 crore (9.34 billion) to INR 5,665 crore (56.65 billion) (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013). This was a clear indication of the risk and severity of the risk KFA was to manage. The risk was clearly reflected in its liquidity position which deteriorated by 86% implying the inability to meet short-term obligations (Aggarwal and Singh, 2015).

The airline had colossal debt to repay (see Table 2), Aggarwal and Singh (2015) revealed that post-acquisition Debt-Equity ratio multiplied by 95% and Interest Coverage ratio was negative. Chava (n.d.) used the Interest as an element for the calculation of Survival Margin for KFA. This device indicated the tendency of KFA to endure in the environment with fixed expenses. However, KFA could not satisfy the requirements of the device, implicating the financial condition. Moreover, Mahesh and Prasad (2012) indicated that Interest Coverage Ratio for KFA was below industry standards. It had borrowed funds from various financial institutions for meeting short-term expenses, which exceeded funds raised through equity (see Table 2). KFA preferred borrowed funds over equity to operate the airline. However, this speculation did not assist in attaining operational and financial efficiency.

Moreover, KFA had not recorded profits since the listing date (i.e. 2006) (see Table 3). Consequently, Net Profit Margin (NPM) remained negative due to external complexities and internal strategic decisions. The losses incurred post-acquisition were greater than the losses reported pre-acquisition (Mahesh and Prasad, 2012). Vasantha, Vasantha and Thiayalnayaki (2013) also clearly indicated the negative performance of NPM over a period of five years (i.e., 2008-2012). Return on Capital Employed (ROCE) and Return on Assets (ROA) ratios were in deficit indicating the loss of investment made by the shareholders and the critical financial condition, (Mahesh and Prasad, 2012; Vasantha, Vasantha and Thiayalnayaki, 2013; and Aggarwal and Singh, 2015). Though, Return on Equity (ROE) slightly improved post-acquisition, rating agencies relegated KFAs' creditworthiness position due to rising probabilities of financial risk (Mahesh and Prasad, 2012). However, Aggarwal and Singh (2015) revealed that ROE ratio was negative, implying the unsatisfactory financial condition. Generally, the profitability ratios reflected KFAs' ineffectual operational decisions, management policies and low revenues.

Mahesh and Prasad (2012) revealed that excessive operating expenses, accumulating interest expense and so on accounted for negative Earnings Per Share (EPS). Therefore, negative EPS effected investors' reaction towards the airline and was reflected in the Price Earning (P/E) ratio. Furthermore, financial and operational efficiency of KFA was measured using Altman's Z-Score Model. Kumar and Anand (2013) applied two variants of the Altman's Z-Score Model. The original model and modified model. Both models revealed that KFA was constantly reporting losses and was incompetent to judiciously manage the high debts and translate assets and resources into profits.

The Z-Scores indicated that KFA was experiencing extreme financial distress, signaling the probabilities of bankruptcy. Similarly, Vasantha, Vasantha and Thiayalnayaki (2013) applied three variants of the Altman's Z-Score Model on Kingfisher Airlines, Jet Airways and Spice Jet. The models aimed to evaluate efficiency of the selected firms from the year 2008 to 2012. The Z-Scores revealed that KFA was at the brink of bankruptcy. Specifically, the original model suggested that the firm did not have the capacity to satisfy the minimum level criteria of credit score. The credit score ranged between 1.24 and 1.80; the model results claimed that the firm was bankrupt. Revised Z-Score model suggested the same. Moreover, the Revised Four Model of Z-Score revealed that by 2012, the score was negative 10.25. Though the Z-Scores of Jet Airways and Spice Jet also revealed their financial and operational inefficiencies, the airlines did have the capacity and were optimally using their resources.

According to Srivastava, Ali and Tiwari (2013), it was essential for KFA to mitigate three kinds of risk, for the acquisition to materialize the benefits. Strategic, Financial and Operational Risks. Strategic Risk was applicable in three instances: the target customers, the acquisition strategy and priority check on capital investments. Thorough understanding of the Indian market for air travel and maintaining the brand image as a premium class airline was essential. Sensitivity towards the operating environment is necessary in capacity expansion decisions as the aviation industry involves huge investments and costs, which basically increase operating and financial expenses. Subsequent risk faced by KFA was Financial Risk. KFA did not record profits even after the listing date, and debt accumulated every year and resulted in unbearable losses. Huge expenditure was incurred due to rising ATF prices, Customs Duty and Sales Tax which all account for the third risk: Operational Risk. If these risks were recognized and mitigated, financial and operational efficiency was attainable.

KFA retreated from the low-cost business on September 28, 2011 with a view that there were enough players in the low-cost segment (CAPA-centre for Aviation, 2011) and had debt of around INR 6,500 crore (65 billion) ("Kingfisher Airlines," 2019a). Later, in 2012, KFA was accused of tax evasion as the company did not deposit tax collected from air travelers ("Revenue dept", 2012). In the following years, KFAs' situation further entangled due to a series of events. The Directorate General of Civil Aviation (DGCA) denied permit to renew its license ("Kingfisher Airlines," 2012b) and deregistered 15 aircrafts of Kingfisher Airlines ("DGCA deregisters," 2013). However, that was not the end of KFAs' plight. KFAs' employees approached the Court for unpaid salaries ("Kingfisher flies," 2013). Consequently, the last Balance Sheet of KFA was for the FY 2012-13 (Ministry of Corporate Affairs, 2019). In 2014, United Bank of India announced Mallya and three directors of KFA as wilful defaulters ("United Bank," 2014). In 2016, several winding up petitions were filed against Kingfisher Airlines Ltd. in the High Court of Karnataka for reasons such as defaulting on loans, commercially insolvent and the incapability to clear all debts. Therefore, the Court opined that KFA Ltd. must be wound up (High Court of Karnataka, 2016).

Eventually, BSE and NSE announced the delisting of KFA from their exchanges on May 11, 2018 (BSE, 2018) and May 30, 2018 (NSE, 2018). On February 3, 2019, the Home Secretary of the United Kingdom signed the order to extradite Vijay Mallya to India against the charges of money laundering which amounted to approximately INR 9,000 crore (90 billion) (Ram, 2019).

## **HYPOTHESES**

## **METHODOLOGY**

### **RESEARCH DESIGN**

A descriptive and diagnostic research design was used for this study. It was descriptive as it precisely described the participants (i.e. KFA) in the study. It adopted a diagnostic research design to detect the factors influencing the financial condition of KFA.

### **METHODOLOGY**

The study adopted a case study approach as it concentrated merely on KFA. This research intended to assess the feasibility of an event, i.e., acquisition of DAL, by measuring severity of risks before acquisition (i.e., 2002-03 to 2006-07) and after acquisition (i.e., 2008-09 to 2012-13). Financial Risk ratios and Operational Risk ratios were computed to evaluate the success of KFAs' acquisition strategy.

### **DATA SOURCES, SAMPLE AND ANALYSIS**

#### **SOURCES OF DATA**

Moneycontrol.com, Ministry of Civil Aviation strategy report, CARE Report, CAPA report, articles on ICAO and IATA, Business Today, Economic Times, and pertinent research articles. Some of the Financial Risk and Operational Risk ratios used by Azhagaiah and Sathishkumar (n.d.) in their paper on merger and acquisitions of manufacturing companies were used as the base for the study.

#### **DATA ANALYSIS**

Financial data was collected from the website *Moneycontrol.com*; the acquisition year was overlooked; 5 years prior to the acquisition year and 5 years after the acquisition were considered for calculation and analysis. The results were compared to determine the success of the acquisition strategy.

#### **STATISTICAL TOOLS AND TECHNIQUES**

There were eleven null hypotheses (see Table 5) tested using Paired Two Sample T-Test (One-Tail), with 95% confidence level to check the significant variations in the ratios after the acquisition (see Table 6).

#### **RATIOS USED TO MEASURE FINANCIAL RISK AND OPERATIONAL RISK**

The study was restricted to pertinent ratios, to compare the level of risk before and after the acquisition (Azhagaiah and Sathishkumar, n.d.).



**Table 5: Null Research Hypotheses for the Study**

$H_{0a}$	There is no significant difference in Debt-Equity Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0b}$	There is no significant difference in Proprietary Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0c}$	There is no significant difference in Equity Multiplier Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0d}$	There is no significant difference in Total Debt to Net Fixed Assets Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0e}$	There is no significant difference in Total Debt to Total Assets (Debt Ratio) Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0f}$	There is no significant difference in Interest Coverage Ratio (A) of Kingfisher Airlines before and after the Acquisition event
$H_{0g}$	There is no significant difference in Interest Coverage Ratio (B) of Kingfisher Airlines before and after the Acquisition event
$H_{0h}$	There is no significant difference in Financial Leverage Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0i}$	There is no significant difference in Net Fixed Assets to Net Worth Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0j}$	There is no significant difference in Total Liabilities to Net Worth Ratio of Kingfisher Airlines before and after the Acquisition event
$H_{0k}$	There is no significant difference in Operating Leverage Ratio of Kingfisher Airlines before and after the Acquisition event
<b>Note:</b> Null Hypotheses for each ratio calculated under Financial Risk and Operational Risk.	
<i>Source: Authors' Analysis</i>	

#### FINANCIAL RISK RATIOS

Debt-Equity Ratio, Proprietary Ratio, Equity Multiplier Ratio, Total Debt to Total Fixed Assets Ratio, Debt Ratio, Interest Coverage Ratio (A), Interest Coverage Ratio (B) and Financial Leverage Ratio. Refer to Table 4 for formulas for Financial Risk Ratios.

#### OPERATIONAL RISK RATIOS

Net Fixed Assets to Net Worth Ratio, Total Liabilities to Net Worth Ratio and Operating Leverage Ratio. Refer to Table 4 for formulas for Operational Risk Ratios.

### RESULTS

#### FINANCIAL RISK RATIOS

##### DEBT – EQUITY RATIO

In the initial years, Debt-Equity ratio for KFA was revolving around 2, but in the year 2004-05 the ratio increased to 20.83, due to debt financing. However, a proportionate increase in the Equity and Debt was observed for the year 2005-06 (See Table 2),

**Table 6: Financial Risk and Operational Risk Levels of KFA**

	Before Merger – 5 Years		After Merger – 5 Years		t stat 5%	P (T<=t) one-tail	Null Hypothesis
	Mean	Variance	Mean	Variance			
<b>Financial Risk Ratios</b>							
Debt – Equity Ratio	5.96	69.06	-1.86	0.60	2.03	0.06	Accept
Proprietary Ratio	25.63	141.57	-141.40	10047.71	3.56	0.01	Reject
Equity Multiplier Ratio	9.39	105.55	-2.06	1.51	2.38	0.04	Reject
Total Debt to Net Fixed Assets Ratio	2.60	3.37	6.16	11.79	-2.14	0.05	Reject
Debt Ratio	0.85	0.01	2.26	3.48	-1.66	0.09	Accept
Interest Coverage Ratio (A)	0.52	1.44	-0.77	0.95	3.30	0.01	Reject
Interest Coverage Ratio (B)	0.60	0.53	-0.43	0.98	3.41	0.01	Reject
Financial Leverage Ratio	-3.15	29.04	-1.29	4.05	-0.67	0.27	Accept
<b>Operational Risk Ratios</b>							
Net Fixed Assets to Net Worth Ratio	1.87	1.32	-0.40	0.07	3.83	0.01	Reject
Total Liabilities to Net Worth Ratio	8.86	125.18	-3.07	1.51	2.29	0.04	Reject
Operating Leverage Ratio	0.41	9.12	-30.68	4226.39	1.08	0.17	Accept

Note: t stat = test statistic; Data Source: Moneycontrol.com; Calculation Source: MS Excel

*Source: Authors' Analysis*

encouraging this ratio to drop to 2.02. Due to an outlier observed in the year 2004-05, the mean of Debt-Equity ratio was 5.96 before acquisition (see Table 6). Debt-Equity ratio was negative for 5 consecutive years after acquisition which can be attributed to negative Equity; huge deficits were identified in Reserves and Surplus (R&S) (see Table 2). According to Mukhopadhyay, Dey, Bannerjee and Dutta (2013), KFA had negative R&S because of more accumulated losses over time than accumulated Net Profit (see Tables 2 and 3). KFA consistently made losses even after the listing date (see Table 3).

Moreover, acquisition of an unprofitable firm carrying huge debt (Shukla, 2013), multiplied debt burden for KFA, resulting in a negative Debt-Equity Ratio. With  $t$ -stat (5%) at 2.03 and  $p$ -value (one-tail) of 0.06, the  $H_{0a}$ , which stated "There is no significant difference in Debt-Equity Ratio of Kingfisher

Airlines before and after the Acquisition event” was accepted. A significant change in this Financial Risk ratio, i.e., Debt-Equity Ratio, was almost unnoticed after acquisition due to proportionate increase in equity to debt. The result is in line with the prior findings reported by Mahesh and Prasad (2012),  $p$ -value being 0.52 and Aggarwal and Singh (2015),  $p$ -value being 0.11, despite the differences in the sample size, percentage of confidence level and the type of test (i.e. two-tail test) used. But, the  $p$ -value in the current study was relatively close to the rejection area, compared to previous studies. Debt component of KFA was evaluated by Mukhopadhyay, Dey, Bannerjee and Dutta (2013), Chava (n.d.) and Prasad, Singh and Vishwanath (2015). Though it was not tested, Mukhopadhyay, Dey, Bannerjee and Dutta (2013) revealed that borrowing levels multiplied from INR 934 crore (9.34 billion) to INR 5,665 crore (56.65 billion). Chava (n.d.) indicated that debt was the key source of fund for KFA over the years and stated that the rising debt was risky and daunting and hindered KFAs’ growth; Debt-Equity ratio remained negative over the years which signified poor solvency. Prasad, Singh and Vishwanath (2015), revealed that the borrowed funds were three times the company’s market value, implying unsound financial condition.

#### PROPRIETARY RATIO

It ascertained the fund contribution from proprietors and outsiders. Prior to acquisition, in a span of five years, proprietary ratio was low and ranged between 5% and 33%, indicating more risk transferred to creditors. This was attributable to its excess dependency on debt than equity (See Table 2). A lurching dip of 4.58% was observed in 2004-05, signifying high risk. This ratio dropped further to negative 60.03% a year after the acquisition and consistently declined further due to negative R&S. With  $t$ -stat (5%) at 3.56 and  $p$ -value (one-tail) of 0.01 the  $H_{0b}$  which stated “There is no significant difference in Proprietary Ratio of Kingfisher Airlines before and after the Acquisition event” was rejected. Significant change in this Financial Risk ratio, i.e., Proprietary Ratio, was noticed after acquisition because the debt level continued to increase after the acquisition, indicating expansion in Financial Risk. Though this parameter was not available in previous studies for comparison, Mukhopadhyay, Dey, Bannerjee and Dutta (2013), Chava (n.d.) and Prasad, Singh and Vishwanath (2015) have indicated the rise in KFAs’ debt component post-acquisition.

#### EQUITY MULTIPLIER RATIO

It determined the amount of contribution from shareholders in funding the assets of the firm; this ratio must be maintained low. The value derived from the calculation, the debt and equity component of the company’s capital structure can be understood. For instance, Equity Multiplier Ratio for the year 2002-03 is 4.59, indicating low equity of 21.78% (i.e., 5.26/24.15) and a high debt of 78.22% (i.e., 100-21.78%). Debt component constantly expanded over the years, before and after the acquisition. A negative but an improving trend in this ratio was observed after the acquisition event

due to inadequacy in R&S. Such a trend conveys that the airline was unprofitable and had limited opportunities for growth due to inadequate amount as contingency. With  $t$ -stat (5%) at 2.38, which gives a  $p$ -value (one-tail) of 0.04 the  $H_{0c}$  which stated "There is no significant difference in Equity Multiplier Ratio of Kingfisher Airlines before and after the Acquisition event" was rejected. A significant change in this ratio was noticed after acquisition. The debt level constantly increased and equity funding constantly decreased after the acquisition (See Table 2), therefore the ratio visibly indicated the level of stress on the health of the entity. Though the result of this parameter cannot be compared with the previous studies, Mahesh and Prasad (2012) and Chava (n.d.) indicated that KFA preferred raising funds from financial institutions than through equity.

#### TOTAL DEBT TO NET FIXED ASSETS RATIO

It is generally applied on capital-intensive industries; this ratio signifies that portion of Net Fixed Assets which is funded particularly by Long-Term Debt. As primarily reliant on debt (See Table 2), KFAs' Net Fixed Assets are funded by Long-Term Debt. Ideally, 0.5 or 50% must be maintained. However, this carrier's ratio was in excess of 1 or 100%. It constantly increased prior to and after acquisition and reached 12.16 in the year 2012-13. The ratio indicated high leverage, implying weak financial condition. With a  $t$ -stat (5%) at  $-2.14$  arriving at a  $p$ -value (one-tail) of 0.05, the  $H_{0d}$ , which stated "There is no significant difference in Total Debt to Net Fixed Assets Ratio of Kingfisher Airlines before and after the Acquisition event" was rejected. The results revealed that KFA extensively relied on long-term borrowings to fund its Fixed Assets. The result of this parameter cannot be compared with results in the previous studies as this parameter was not measured for KFA.

#### TOTAL DEBT TO TOTAL ASSETS RATIO (DEBT RATIO)

Total Debt includes all Long-Term Debt and Short-Term Debt. It illustrated what proportion of Total Assets was funded by Total Debt. This ratio measured the strength of its assets to clear all liabilities. Optimal standard for this ratio is 0.5, however, this ratio has always been observed above 0.5 and gradually surpassing 5, before and after the acquisition. Particularly after acquisition, Debt Ratio was above 100%. It indicated the weakening and inadequacy of assets to clear all and increasing company's liabilities. Risk level drastically augmented after the acquisition of a debt burdened airline (Gupta, 2004). Marginal growth in the ratio was observed over the years, as there was insignificant increase in Total Assets after acquisition (See Table 2).

Therefore,  $H_{0e}$  which stated "There is no significant difference in Total Debt to Total Assets Ratio of Kingfisher Airlines before and after the Acquisition event" was accepted with a  $t$ -stat (5%) of  $-1.66$  and  $p$ -value (one-tail) of 0.09. However, Debt Ratio was not a parameter measured in previous studies, hence cannot be compared. But Kumar and Anand (2013) revealed by applying Altman's Z-Score models, that

KFA was incapable of translating assets into profits. This implied the quality and value of KFAs' assets post-acquisition. Therefore, the findings of previous studies support the findings of the current study.

#### INTEREST COVERAGE RATIO (A)

This ratio ascertained how immediately a company makes interest payments on debt. It assessed short-term financial soundness. The higher the times the company was able to meet interest obligations, the better was its short-term financial soundness. The ratio acts like a moderator and helps in surviving a financial crisis. Optimal standard lies between 1.5 and 2.5 which was met by KFA only in the year 2002-03.

Operating losses since its foray into the stock market (See Table 3), growing debt and interest expenses led to negative Interest Coverage Ratio from 2006-07 to 2012-13. The ratio results revealed the inability to achieve operational efficiency. Therefore, with a *t*-stat (5%) of 3.30 giving a *p*-value (one-tail) of 0.01, the  $H_{0f}$  which stated "There is no significant difference in Interest Coverage Ratio (A) of Kingfisher Airlines before and after the Acquisition event" was rejected. KFAs' reported losses were the major factor influencing increased debt and declining Net Worth (Shukla, 2013). Moreover, the results accentuated its inability to handle debt and achieve operational efficiency in spite of using a sustainable strategy. The results are not in line with the findings reported by Mahesh and Prasad (2012) and Aggarwal and Singh (2015), due to varying sample size, source of financial data and type of test (i.e., two-tailed test) used. Chava (n.d.) analyzed KFAs' financial performance with the help of Gross Value Added (GVA) tool. GVA is essentially a Survival Margin indicating the propensity of the firm to endure in the environment. It comprises of various elements which are fixed expenses by nature. One such element was Interest. It was indicated that Kingfisher could not achieve the Survival Margin, indicating operational inadequacy.

#### INTEREST COVERAGE RATIO (B)

This ratio took into account EBIAT or Interest Expense added back to Net Profit. It revealed a realistic picture of the company's ability to make interest payments as Tax is an inevitable financial component. This variation provided a realistic picture of the financial crisis KFA was experiencing. Interest Coverage Ratio (A) met the criteria in the year 2002-03, but with the inclusion of the tax element, results varied. The Interest Coverage Ratio (B) was below the minimum level, i.e. 1.41 and continued to exist below 0.5, indicating poor management of debt and the inability to meet interest obligations. A *t*-stat (5%) of 3.41, arriving at a *p*-value (one-tail) of 0.01 led to the decision of rejecting the  $H_{0g}$ , which stated "There is no significant difference in Interest Coverage Ratio (B) of Kingfisher Airlines before and after the Acquisition event."

A significant change in this ratio was observed due to escalation in debt after the acquisition, this led to an increase in interest expense (See Table 3), clearly denoting the high-risk position. Interest Coverage Ratio (B) parameter with the tax element

was not measured in the previous studies, therefore findings cannot be compared. But, it was indicated by Mahesh and Prasad (2012) that Interest Coverage Ratio was much below industry standards, manifesting the risk of default.

#### FINANCIAL LEVERAGE RATIO

It summarizes the amount of financial leverage or pressure on the company's EPS and measures the feasibility of company's financial structure. In this case however, KFAs' Degree of Financial Leverage negatively varied for 5 years prior to and after acquisition. This was attributable to negative EPS and fluctuating Operating Losses (See Table 3). The Debt-Equity combination of KFA was complex and unviable. As the results represented an unclear pattern, the  $H_{01}$ , which stated "There is no significant difference in Financial Leverage Ratio of Kingfisher Airlines before and after the Acquisition event" was accepted at  $t$ -stat (5%) of  $-0.67$ , giving a  $p$ -value (one-tail) of  $0.27$ .

Though this ratio was not measured for KFA in the previous studies, the trend in EPS over the years was analyzed. According to Vasantha, Vasantha, and Thiayalnayaki (2013), EPS has been consistently negative since 2008. Mahesh and Prasad (2012) enumerated the reasons for negative EPS, which included inflated operating and interest expenses, shrinking revenues, and intense competition. EPS and Financial Leverage ratio performance have not introduced any significant change after the acquisition. Therefore, the ratio is in line with the trend noticed in EPS analyzed in the previous studies.

#### OPERATIONAL RISK RATIOS

##### NET FIXED ASSETS TO NET WORTH RATIO

It indicated the degree of investment made by shareholders in Fixed Assets and the degree of funds available for financing day-to-day operations. Lower the ratio, the better, as it indicates higher funds available for managing day-to-day operations. Ideally, the ratio must be  $0.75$  or lower. The ratio was above  $0.75$ , indicating that KFA had inadequate funds to meet short-term obligations or operational expenses. The ratio depreciated further in the following years after the acquisition. Therefore, the  $H_{01}$ , which stated "There is no significant difference in Net Fixed Assets to Net Worth Ratio of Kingfisher Airlines before and after the Acquisition event," was rejected at  $t$ -stat (5%)  $3.83$  giving a  $p$ -value (one-tail) of  $0.01$ . Priority check on expenses is crucial in this capital-intensive industry. After acquisition, KFA grew to become operationally vulnerable to survive the changes in the environment, especially the rising ATF prices, seasonal demand, and intense competition (Mukhopadhyay, Dey, Bannerjee, and Dutta, 2013).

This ratio was not used in the previous studies to measure KFAs' performance, hence cannot be compared. However, the ratio does accentuate the ability of the

airline to meet short-term expenses. As the ratio remained high and turned negative due to erosion of Net Worth over the years, it was clear that KFA was financially feeble to meet short-term obligations.

#### TOTAL LIABILITIES TO NET WORTH RATIO

The ratio is similar to Debt-Equity Ratio, but this also considered meeting operational obligations. Total Liabilities comprised of Long-Term Debt and Short-Term Debt. Therefore, this was an indicator of the total financial health of a company. Judicious use of funds from shareholders was ascertained based on how high or low the ratio was. Preferably, a ratio of 50% or lower must be sustained to indicate low operational risk. As for KFA, this ratio was above 100% prior to acquisition and below 1% post-acquisition. This indicates that the company's earnings were insufficient to meet short and long-term obligations. Efforts were made to proportionately increase equity (See Table 2). However, this was a negligible increase and a temporary relief.

Negative values (i.e., after the acquisition), were a result of negative Reserves and Surplus (i.e., accumulated losses) (See Table 2), which was attributable to KFAs' operational disorder that consequently eroded Net Worth (Shukla, 2013). Therefore, with a *t*-stat (5%) at 2.29 giving a *p*-value (one-tail) of 0.04,  $H_0$  which stated "There is no significant difference in Total Liabilities to Net Worth Ratio of Kingfisher Airlines before and after the Acquisition event" was rejected. Total Liabilities to Net Worth Ratio was measured in this study to evaluate KFAs' financial condition but the same parameter was not measured in the previous studies hence comparison was not possible. However, Chava (n.d.) analyzed the KFAs' Net Worth with the total borrowings with the help of GVA. Negative GVA over the years expanded into negative margins, which eventually eroded Net Worth. Borrowings exceeded Net Worth. Therefore, results of the current study support the analysis done by Chava (n.d.). Srivastava, Ali and Tiwari (2013) and Prasad, Singh and Vishwanath (2015) also indicated the erosion in Net Worth of Kingfisher over the years.

#### OPERATING LEVERAGE RATIO

High Operating Leverage is undesirable and signifies volatility and uncertainty in Earnings Before Interest and Tax (EBIT) or Operating Profit, as a result, this increases operational risk for a company. As for KFA, Operating Leverage was volatile before and after the acquisition (See Table 3). A small change in sales can greatly impact Operating Profit. Generally, a fluctuation in KFAs' sales volume was observed. There was lack of clarity in its business model. Misconceptions of operating an LCC led to perplexity in operating the twin-brand strategy business. Revenue generated by KFA was inadequate to service interest rates (Mukhopadhyay, Dey, Bannerjee and Dutta, 2013); indicating it was financially weak to jeopardize its earnings.



Owing to unstable sales over the years, Operating Profit fluctuated, resulting in volatility in Operating Leverage. Therefore,  $H_{0k}$ , which stated “There is no significant difference in Operating Leverage Ratio of Kingfisher Airlines before and after the Acquisition event,” was accepted with  $t$ -stat (5%) at 1.08 and  $p$ -value of 0.17. Though Operating Leverage ratio was not measured in the previous studies, the operational condition of KFA was indicated by Aggarwal and Singh (2015), Chava (n.d.), Kumar and Anand (2013), Mukhopadhyay, Dey, Bannerjee and Dutta (2013), Vasantha, Vasantha and Thiayalnayaki (2013), and, Mahesh and Prasad (2012).

The focus of this study was mainly on leverage ratios unlike in previous studies, which evaluated KFAs' performance using Liquidity, Profitability, Leverage and Capital market ratios. The perspective of this study was concentrated on highlighting the severity of risk in premature application of a strategy to attain operational efficiency rather than evaluating the overall performance of KFA.

## CONCLUSION

To encapsulate, it was during the midst of rapid development of the industry, Kingfisher Airlines initiated commercial operations in 2005. Its intent was to offer domestic air travelers an experience, service, and privilege like that of cross-border air travelers. However, as the carrier gained great acclaim and recognition in its initial years, Vijay Mallya yearned to fly its brand on international skies. Nevertheless, the Indian aviation rules did not permit the same. But the prospects of flying on international skies was achieved when Mallya acquired DAL in 2007. However, both Kingfisher Airlines and Air Deccan were financially unsound, which made Kingfisher Airlines incapable of managing cumbersome debt and losses of both the airlines. With an attempt to correct this acquisition deal, the business model was reshaped several times, but at the price of customers, who were perplexed and preferred other airlines. Due to accumulated debt and losses over the years, Kingfisher Airlines lost its permit to fly, was delisted from renowned stock exchanges and has received a High Court order to wind up.

Risk analysis is an essential part of every organizational decision, for it ensures better overall functioning and performance of the organization. Accordingly, this research aimed at analyzing the level of risk involved prior to and after the acquisition move. Previous studies articulated various financial and operational problems faced by KFA, but a detailed analysis of the financial statements was lacking. It could be interpreted from the findings that there was increase in Financial Risk post-acquisition as evident from Proprietary Ratio, Equity Multiplier Ratio, Total Debt to Net Fixed Assets Ratio and Interest Coverage Ratios. Substantial changes in Net Fixed Assets to Net Worth Ratio and Total Liabilities to Net Worth Ratio implied rise in Operational Risk for KFA (see Table 6). Therefore, the Null Hypotheses were accepted for four ratios i.e. Debt-Equity Ratio, Total Debt to Total Assets Ratio (Debt Ratio), Financial Leverage and Operational Leverage (see Table 6). Apart from Interest Coverage ratio

and Debt-Equity ratio, the remaining nine ratios demonstrated that post-acquisition, Kingfisher endured huge debt; was incapable of meeting short-term obligations; and was susceptible to external adversities.

This study was an attempt to demonstrate the severity of risk in premature application of a strategy from a financial perspective and contributes to the existing body of literature with a description of an exemplary situation of risking the sustainability of a business concern. Considering the characteristics of the aviation operating environment, maintaining the size and market share became necessary for survival in the aviation industry, (Krishnan, 2008). Therefore, proper timing of strategy, priority check on expenditure and considering the propensity of the company are essential for risk management.

To conclude, the acquisition failed to create the expected synergy, achieve operational efficiency and break-even. This exemplary situation serves as a lesson for companies in recognizing the consequences of risking the interest of stakeholders. Therefore, economics of the operating environment must be scrutinized to be well-informed about the risks that can hinder growth of the company so that one can accordingly prepare by applying the right tools and strategies when required by contemplating the impact of certain decisions on stakeholders beforehand.

This study analyzed risk from the financial perspective, however, future researches can assess risk from different perspectives which may include marketing (i.e., target market, segmentation), knowledge management (i.e., knowledge and expertise in the field), production (i.e., availability of pertinent resources) and technology (i.e., technology trends). Different perspectives can provide an overall picture of the risk of KFAs' acquisition decision.

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