

BLACKBERRY LIMITED¹

PART I

1. INTRODUCTION

1.1. HISTORY

BlackBerry, originally Research in Motion (RIM), is a smartphone and mobile wireless communications software company, founded in 1984, in Waterloo, Canada. Nowadays, it operates across many global regions including North America, Latin America, Europe, Middle East and Africa and Asia Pacific, with more than 6000 full-time employees as of February 28, 2015.

RIM was founded by two engineering students, Mike Lazaridis (University of Waterloo) and Douglas Fregin (University of Windsor), in 1984 as a consulting company for computer and electronics. In 1992 Jim Balsillie (Harvard Business School) took on a mortgage, invested it into RIM for a one-third stake in return and soon afterwards became a co-CEO of the company. Finally, RIM went public at the Stock Exchange of Toronto in 1997.

Since early on, the company focused on improving a technology that was user-friendly, effective for corporate customers and most importantly promised advanced data security. In 1999 the company introduced its first mobile device called BlackBerry 850, a two-way pager, which enabled its customer to communicate via e-mail while away from office. In 2002, it released another product called BlackBerry 5810, which was the first smartphone ever. The launch of BlackBerry 5810 was a big hit in the market and the company's sales and market

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shares increased very rapidly up to the point that they were not able to keep up with the demand at certain times. In 2003, RIM was listed in the NASDAQ-100 Index as a result of their success.

From 2003 onwards, BlackBerry gradually increased its popularity and gained more and more subscribers all over the world and a lot of celebrities including Barack Obama and Kim Kardashian were the faces of the brand in different years.

The smartphone industry was growing rapidly and the major milestone was when Apple launched the first iPhone in 2007. The market was very excited by this entirely touchscreen device and Apple's simplistic yet beautiful marketing strategy was very appealing to the consumers. BlackBerry had yet to face another competitor when Android phones made their entrance to the market in 2008. At the time, Blackberry was far from considering these as threats to their dominance. Their growth continued for a couple of more years and in 2009, despite the economic crisis in 2007, they had the second largest smartphone OS market share after Symbian.^[1]

1.2. INDUSTRY OVERVIEW

Technology is the primary force that creates new industries and transforms existing ones. Together with innovation, it is a key driver of change and an important source of competitive advantage. Technology-based industries are driven by a combination of speed and unpredictability, and the difference between a great success and a big failure may be the result of small errors of timing or technological choices.

Smartphone industry is a major branch of technology-based industries and it is known to be a massive and an extremely fast-paced environment where products are constantly changing and being updated. Nowadays, the industry is in early maturity phase, with a lot of companies that saturated the market, a high level of competition and some well-established firms. Smartphone shipments had an immense growth among the recent past years and are expected to grow. Most of the vendors are quickly to imitate new features and currently there is a slightly differentiation among offered devices. For instance, Apple's introduction of iPhone in 2007 brought all competitors to follow it (e.g. the touch screen concept), including BlackBerry. Another important aspect of the industry is the need of complementing the

hardware devices with a software offering. BlackBerry's QNX is the only one used on proprietary handset with Apple's iOS.

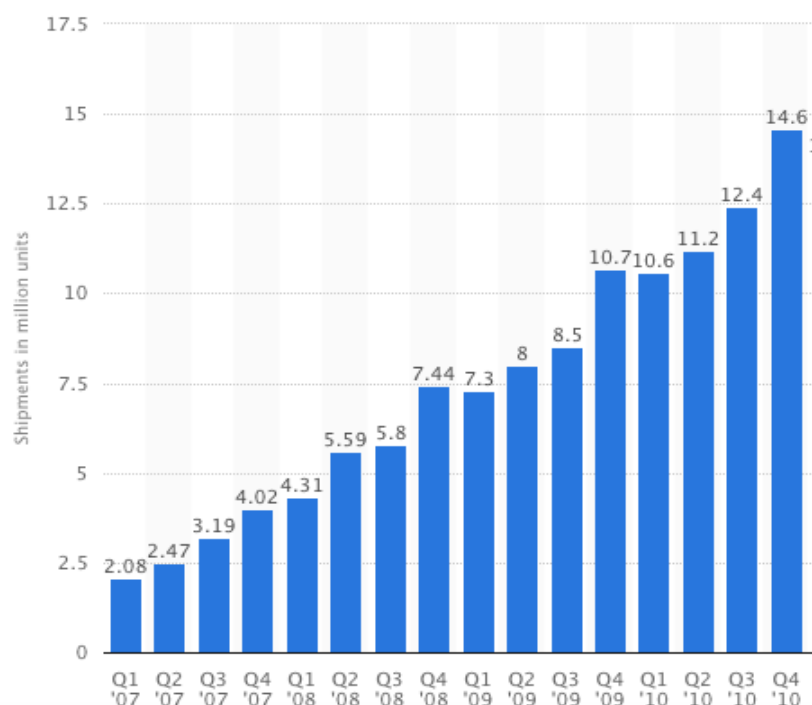
As an outlook on the industry, the trend is primarily shifting in the favor of those companies who focus more on security and privacy protection, an area where BlackBerry has a lot of experience in, which could bring back its profitability so long as it is fast in responding to the changing dynamics in the market.

2. ANALYSIS OF BLACKBERRY IN THREE STAGES

2.1. STAGE 1 – THE RISE (THE BEGINNING – 2011)

Since introducing the first-ever smartphone 'Blackberry 5810' in 2002, Blackberry has displayed an aggressive growth and held the leader position in the industry for a long time.

Blackberry's sales and net income kept rising even after Apple introduced the first iPhone in 2007, and Android phones entered the market in 2008, as can be seen in the graph on the right, showing Blackberry's shipments in million units from Q1 2007 until the end of Q4 2010. At this time, BlackBerry was almost at its all-time peak.



Relevant financial statements can be found in the **Appendix 1-2**.

QUESTIONS

(1) *Provide a SWOT Analysis*

(2) *Identify the strengths and weaknesses of Blackberry's financial situation.*

2.2. STAGE 2 – THE DECLINE (2011 – SEPTEMBER 2013)

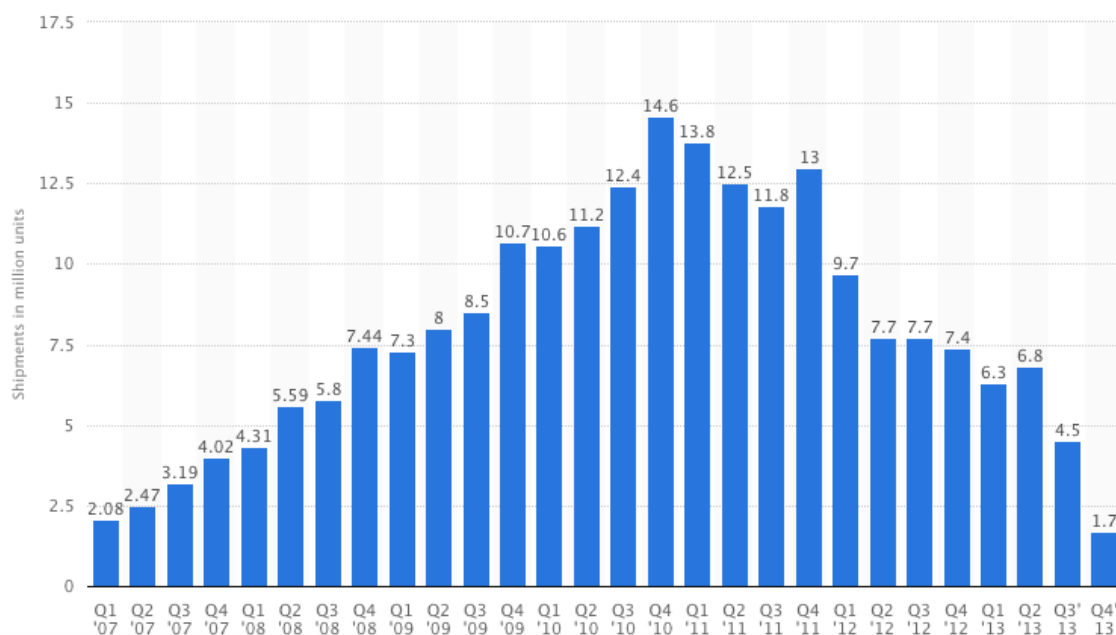
Sooner or later, BlackBerry's downfall was inevitable considering that they failed to recognize potential threats implied by the entrance of Apple's iPhone (2007), and the Android smartphones (2008) in the market. Given the level of dynamism of the industry, inability to respond on time - and accurately - to ever-changing market needs is a major signal of an impending downfall alongside with a loss of market share.

It was not only the iPhone and Android phones, but also that Blackberry relied heavily on its applications and perhaps neglected the fact that soon their competitors would come up with substitutes as well. For instance, one reason why Blackberry had become so popular and protected its stance against iPhone and Android phones was based on the fact that apart from business professionals, also the younger generations were preferring Blackberry phones for their instant messaging facility, the Blackberry Messenger, or shortly "BBM", which had replaced SMS and allowed Blackberry users to communicate freely between each other. At this time, this was a feature that the company's competitors wouldn't offer. For example, WhatsApp was only available for iPhones between 2009 and 2011, and its performance was not very satisfying due to bugs and software problems[*]. Yet, they were continuously working on improvement and soon WhatsApp was available in other operating systems, free and functioning well, making Blackberry lose its leverage against its competitors.

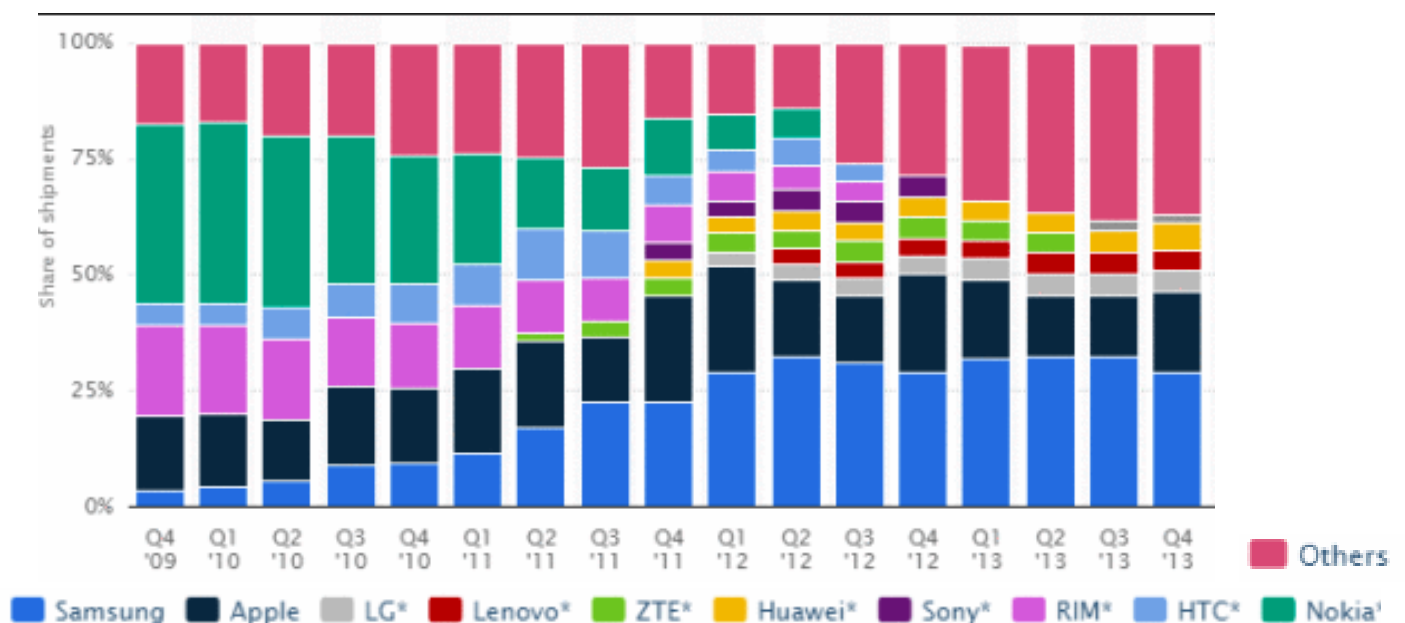
In short, Blackberry's once advanced software and smartphones were no longer able to stand their positions against Apple's iPhone, Android's innovative technology and other developments in the industry. By 2011, the impact of their inability to read market trends, respond quickly to changes in customer demands, and delay in releasing new products (e.g. the Playbook release a year after iPad) began taking its toll on their financials.

They began losing blood at a very high pace; their growth and sales had started declining very rapidly and in 2012, the firm had to lay off 2000 employees for cost reduction. One year later, both Mike Lazaridis and Jim Balsillie resigned, bringing along an additional reduction of 5000 employees. In 2013, the company released an operating system and two new smartphones and RIM changed its name into BlackBerry. The effect was an increase in sales and the company made some profit but unfortunately not enough. Hence, BlackBerry had to lay off another 4500 workers.

However, the fall kept going on. The company still couldn't stop its sales from declining and only within three years, their shipments had fallen down from 14.6 million units (Q4 2010) to 1.7 million units, as can be seen in the chart below:



Meanwhile, their market shares were also shrinking, and as can be seen from the chart below, after Q2 2013, they were no longer being listed separately but instead were included in the “Others” category.



On August 2013, they announced that they were open to consider strategic alternatives such as joint ventures or selling the shares of the company ^[2]. On September 2013, Fairfax

Financial, who already owned 10% of the shares of the company, made an offer of \$4.7bn to buy the company at \$9 per share. At this point, Blackberry had a very critical decision to take: Should they take Fairfax Financial's offer and sell the company or instead try to work hard for a turnaround?

Relevant financial statements can be found in the **Appendix 3-4**.

QUESTIONS

- (1) If you were the CEO of Blackberry, would you take Fairfax Financial's offer?
Please justify your answers based on numbers.*
- (2) Construct a Cause and Effect Diagram.*

2.3. STAGE 3 – THE REVIVAL (OCTOBER 2013 – PRESENT)

While the public was expecting that they would sell the company, on 4 November 2013, Blackberry has made a press release stating that Fairfax Financial had decided to make a \$1bn cash injection in the company to improve the company's cash status, and that John Chen would take over the CEO position ^[3]. The note also concluded that after thorough analyses they had come to the conclusion of not selling the company since they thought Blackberry had the credibility and brand image to regain its success with necessary managerial and operational changes. A few days later, on the 13th of November, the CEO John Chen officially announced that they were not going to sell the company, and instead were determined to work for gaining their power back ^[4].

This, however, wasn't going to be one of the easiest things. As a brand, it is very hard to regain the strength after having a fall as hard and as fast as Blackberry did. After losing their market share and the leadership title in the smartphone industry year by year, the company has started to being called "the walking- dead smartphone company"^[5].

Nevertheless, the new CEO, John Chen, stated that it was possible to shift the trends even from this point on with changes in both management and business strategies, and promised to rebuild a profitable Blackberry. As the CEO John Chen highlighted in an interview with Reuters, they would primarily focus on efficiently managing their supply chain, inventories, cash and expenses, and then start thinking about how to grow again^[6]. He remarked that their

main aim for now was to add value to the company by complementing their devices by other revenue streams such as enterprise services and software. He had also noted that the company was not leaving the handset market^[7]. Following this, Blackberry launched a new Passport handset marketed to professionals, especially in healthcare and architecture industries.

On December 17, 2014, Blackberry introduced the Blackberry Classic, which was more in line with the former Bold series. In 2015, Blackberry released an Android-operated smartphone, Blackberry PRIV, focusing the business model more on software for secure mobile communications across different mobile platforms, which impacted BlackBerry's stocks positively. New devices Passport and Classic were the successful steps of the new Blackberry, both Blackberry shops and Amazon.com -in which Passport was the highest rated smartphone- were having difficulties to keep the devices in stock^[8].

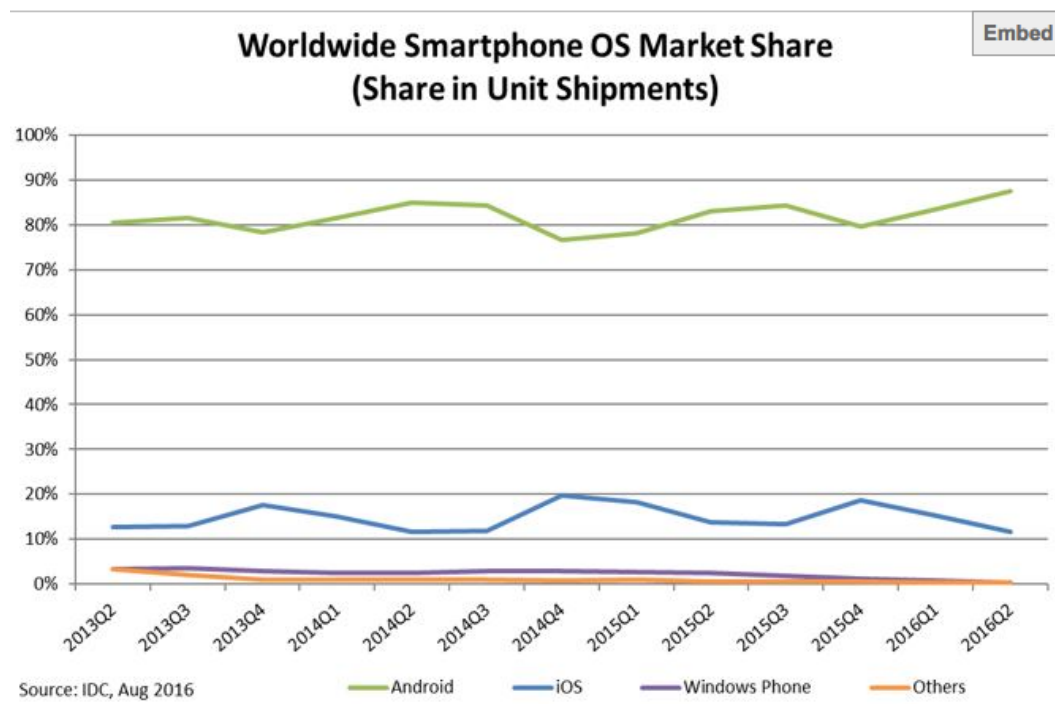
Blackberry's most compelling strength has always been its expertise in security, enterprise software and services, BTS and Messaging. In the sector of the Enterprise Mobility Management, Blackberry has held the leading position in the market. The company decided to expand its focus in the messaging business by improving the BlackBerry Messenger (BBM) and acquiring AtHoc, a software platform that enables its users to change secret information continuously in real time with any device.

Based on this, in 2015, John Chen said that the company would focus a lot on enterprise apps and specifically Internet of Things (IoT) which was a combination of QNX software with Blackberry's secure network infrastructure and device lifecycle management. He underlined the importance of new generation of apps arrival and the importance of keeping pace with these changes for Blackberry^[9]. In mid-September 2016, BlackBerry announced that they would outsource their hardware development in order to focus even more on secure software products. Using the words of CEO John Chen "BlackBerry is no longer just about the smartphones, but the smart in the phone"^[2] (CBC News) one can see the change in the company's current business model.

Relevant financial statements can be found in **Appendix 5-6**.

2.3.1. Recent Competition and Market Shares of Smartphone Vendors and Operating Systems

In order to evaluate Blackberry's current and future strategies it's useful to keep in mind the recent market dynamics. Currently, the leading Operating Systems are Android and iOS with accounting for more than 99% of the market, while the other competitors including Windows Phone, Symbian and Blackberry are competing in the remaining 1%. The chart below depicts the Operating Systems market shares in unit shipments from Q2 2013 until Q2 2016:

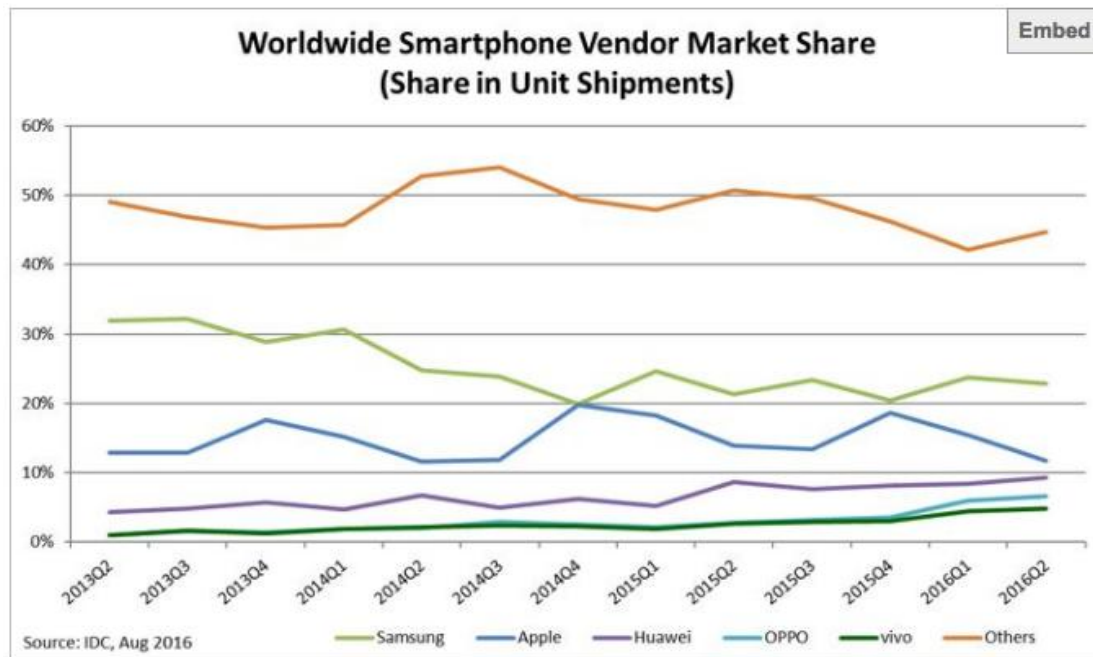


Period	Android	iOS	Windows Phone	Others
2015Q3	84.3%	13.4%	1.8%	0.5%
2015Q4	79.6%	18.6%	1.2%	0.5%
2016Q1	83.4%	15.4%	0.8%	0.4%
2016Q2	87.6%	11.7%	0.4%	0.3%

Source: IDC, Aug 2016

As per the competition amongst the Smartphone vendors; Apple and Samsung account for more than 40% of the market share. Other companies that also compete in the market are Huawei, OPPO, Lenovo, LG and Nokia. Blackberry is not listed as a separate entity and

instead has a very small proportion in the “Others” category. The chart below demonstrates the global smartphone vendor market shares in unit shipments from Q2 2013 until Q2 2016.



Period	Samsung	Apple	Huawei	OPPO	vivo	Others
2015Q3	23.3%	13.4%	7.6%	3.2%	2.9%	49.6%
2015Q4	20.4%	18.6%	8.2%	3.6%	3.0%	46.2%
2016Q1	23.8%	15.4%	8.4%	5.9%	4.4%	42.1%
2016Q2	22.8%	11.7%	9.3%	1.0%	5.9%	40.2%

QUESTIONS

- (1) *Identify Blackberry's Key Success Factors*
- (2) *What measures should BlackBerry take in order to manage the operational turnaround?*
- (3) *What are the effects of the recommended measures on BlackBerry's financials?*

3. APPENDIX

Appendix 1 – Income Statement (The Rise (2006-2011))

BlackBerry Limited		INCOME STATEMENT										
In millions USD		Years										
		Feb. 26, 2011	%	Feb. 27, 2010	%	Feb. 28, 2009	%	Mar. 1, 2008	%	Mar. 3, 2007	%	Mar. 4, 2006
Revenue		19.907	100%	14.953	100%	11.065	100%	6.009	100%	3.037	100%	2.066
Hardware and other		16.416	82%	12.536	84%	9.411	85%	4.914	82%	2.304	76%	1.526
Service and software		3.491	18%	2.417	16%	1.654	15%	1.095	18%	733	24%	540
Cost of sales		11.082	56%	8.369	56%	5.968	54%	2.929	49%	1.379	45%	926
Hardware and other		10.516	53%	7.979	53%	5.718	52%	2.758	46%	1.265	42%	841
Inventory write-down		-	-	-	-	-	-	-	-	-	-	-
Supply commitment charges (recovery)		-	-	-	-	-	-	-	-	-	-	-
Service and software		566	3%	390	3%	250	2%	171	3%	114	4%	85
Gross margin		8.825	44%	6.584	44%	5.097	46%	3.081	51%	1.658	55%	1.140
Operating expenses		4.189	21%	3.346	22%	2.375	21%	1.349	22%	851	28%	725
Research and development		1.351	7%	965	6%	685	6%	360	6%	236	8%	159
Selling, marketing and administration		2.400	12%	1.907	13%	1.495	14%	881	15%	538	18%	314
Amortization		438	2%	310	2%	195	2%	108	2%	77	3%	50
Impairment of long-lived assets		-	-	-	-	-	-	-	-	-	-	-
Impairment of goodwill		-	-	-	-	-	-	-	-	-	-	-
Debentures fair value adjustment		-	-	-	-	-	-	-	-	-	-	-
Litigation		-	-	164	1%	-	-	-	-	-	-	-
Operating profit		4.636	23%	3.238	22%	2.722	25%	1.731	29%	807	27%	415
Investment income (loss), net		8	0%	28	0%	79	1%	79	1%	52	2%	66
Loss from continuing operations before income taxes		4.644	23%	3.266	22%	2.801	25%	1.811	30%	859	28%	482
Recovery of income taxes		1.233	6%	809	5%	908	8%	517	9%	227	7%	107
Loss from continuing operations		3.411	17%	2.457	16%	1.893	17%	1.294	22%	632	21%	375
Loss from discontinued operations, net of tax		-	-	-	-	-	-	-	-	-	-	-
Net Income		3.411	17%	2.457	16%	1.893	17%	1.294	22%	632	21%	375

Appendix 2 – Balance Sheet (The Rise (2006-2011))

BlackBerry Limited		Years											
In millions USD		Feb. 26, 2011	%	Feb. 27, 2010	%	Feb. 28, 2009	%	Mar. 1, 2008	%	Mar. 3, 2007	%	Mar. 4, 2006	%
Current Assets		7.488	58%	5.813	57%	4.842	60%	3.477	63%	1.919	62%	1.259	54%
Cash and cash equivalents		1.791	14%	1.551	15%	836	10%	1.184	21%	677	22%	460	20%
Short-term investments		330	3%	361	4%	683	8%	421	8%	310	10%	176	8%
Accounts receivable, net		3.955	31%	2.594	25%	2.112	26%	1.175	21%	573	19%	315	14%
Other receivables		324	3%	206	2%	158	2%	75	1%	40	1%	32	1%
Inventories		618	5%	660	6%	682	8%	396	7%	256	8%	135	6%
Income taxes receivable		-	-	-	-	-	-	-	-	-	-	-	-
Other current assets		241	2%	247	2%	187	2%	136	2%	42	1%	45	2%
Deferred income tax asset		229	2%	194	2%	184	2%	91	2%	22	1%	97	4%
Assets held for sale		-	-	-	-	-	-	-	-	-	-	-	-
Non-Current Assets		5.387	42%	4.392	43%	3.260	40%	2.034	37%	1.170	38%	1.056	46%
Long-term investments		577	4%	958	9%	721	9%	739	13%	426	14%	614	27%
Restricted cash		-	-	-	-	-	-	-	-	-	-	-	-
Property, plant and equipment, net		2.504	19%	1.957	19%	1.335	16%	706	13%	488	16%	326	14%
Goodwill		508	4%	151	1%	138	2%	114	2%	110	4%	29	1%
Intangible assets, net		1.798	14%	1.326	13%	1.067	13%	470	9%	138	4%	86	4%
Deferred income tax asset		-	-	-	-	0,404	0%	5	0%	8	0%	-	-
Total Assets		12.875	100%	10.205	100%	8.101	100%	5.511	100%	3.089	100%	2.314	100%
Total Liabilities		3.937	31%	2.602	25%	2.227	27%	1.577	29%	605	20%	319	14%
Current Liabilities		3.630	28%	2.432	24%	2.115	26%	1.474	27%	547	18%	284	12%
Accounts payable		832	6%	615	6%	448	6%	271	5%	130	4%	95	4%
Accrued liabilities		2.511	20%	1.638	16%	1.239	15%	690	13%	288	9%	150	7%
Income taxes payable		179	1%	96	1%	361	4%	475	9%	100	3%	18	1%
Deferred revenue		108	1%	68	1%	54	1%	37	1%	28	1%	21	1%
Deferred income tax liability		-	-	15	0%	13	0%	-	-	-	-	-	-
Current portion of long-term debt		-	-	-	-	-	-	0	0%	0	0%	0	0%
Non-Current Liabilities		307	2%	170	2%	112	1%	103	2%	59	2%	35	2%
Long-term debt		-	-	-	-	-	-	7	0%	6	0%	7	0%
Deferred income tax liability		276	2%	141	1%	88	1%	65	1%	53	2%	28	1%
Income taxes payable		31	0%	29	0%	24	0%	31	1%	-	-	-	-
Shareholders' Equity		8.938	69%	7.603	75%	5.874	73%	3.934	71%	2.484	80%	1.995	86%
Capital stock and additional paid-in capital		2.359	18%	2.372	23%	2.208	27%	2.170	39%	2.100	68%	2.069	89%
Treasury stock		-	-	-	-	-	-	-	-	-	-	-	-
February 28, 2015 - nil (March 1, 2014 - 7,659,685)		-160	-1%	-94	-1%	-	-	-	-	-	-	-	-
Retained earnings		6.749	52%	5.274	52%	3.546	44%	1.653	30%	359	12%	-100	-4%
Additional paid-in capital		-	-	-	-	120	1%	80	1%	36	1%	29	1%
Accumulated other comprehensive loss		-10	0%	51	0%	0,457	0%	30,283	1%	-11,516	0%	-1,974	0%
Total Equity & Liabilities		12.875	100%	10.205	100%	8.101	100%	5.511	100%	3.089	100%	2.314	100%

Appendix 3 – Income Statement (The Decline (2011 – September 2013))

BlackBerry Limited		INCOME STATEMENT				
In millions USD		Years Mar. 2, 2013 Δ% Mar. 3, 2012 Δ% Feb. 26, 2011				
Revenue		11.073	-40%	18.423	-7%	19.907
Hardware and other		6.902	-52%	14.301	-13%	16.416
Service and software		4.171	-5%	4.392	26%	3.491
Cost of sales		7.639	-36%	11.848	7%	11.082
Hardware and other		6.627	-41%	11.217	7%	10.516
Inventory write-down		241	-	-	-	-
Supply commitment charges (recovery)		192	-	-	-	-
Service and software		579	-8%	631	11%	566
Gross margin		3.434	-48%	6.575	-25%	8.825
Operating expenses		4.669	-8%	5.078	21%	4.189
Research and development		1.509	-3%	1.556	15%	1.351
Selling, marketing and administration		2.111	-19%	2.600	8%	2.400
Amortization		714	26%	567	29%	438
Impairment of long-lived assets		-	-	-	-	-
Impairment of goodwill		335	-6%	355	-	-
Debentures fair value adjustment		-	-	-	-	-
Litigation		-	-	-	-	-
Operating loss		-1.235	-182%	1.497	-68%	4.636
Investment income (loss), net		15	-29%	21	163%	8
Loss from continuing operations before income taxes		-1.220	-180%	1.518	-67%	4.644
Recovery of income taxes		-592	-271%	347	-72%	1.233
Loss from continuing operations		-628	-154%	1.171	-66%	3.411
Loss from discontinued operations, net of tax		-18	-157%	-7	-	-
Net Income		-646	-155%	1.164	-66%	3.411
Loss per share						
Basic		-1,23	-155%	2,22	-65%	6,36
Diluted		-	-	2,22	-65%	6,34

Appendix 4 – Balance Sheet (The Decline (2011 – September 2013))

BlackBerry Limited	BALANCE SHEET							
In millions USD	Years							
	Mar. 2, 2013	%	Mar. 3, 2012	%	Feb. 26, 2011	%	Feb. 27, 2010	%
Current Assets	7,441	57%	7,071	51%	7,488	58%	5,813	57%
Cash and cash equivalents	1,549	12%	1,527	11%	1,791	14%	1,551	15%
Short-term investments	1,105	8%	247	2%	330	3%	361	4%
Accounts receivable, net	2,353	18%	3,062	22%	3,955	31%	2,594	25%
Other receivables	272	2%	496	4%	324	3%	206	2%
Inventories	603	5%	1,027	7%	618	5%	660	6%
Income taxes receivable	597	5%	135	1%	-	0%	-	0%
Other current assets	469	4%	365	3%	241	2%	247	2%
Deferred income tax asset	139	1%	197	1%	229	2%	194	2%
Assets held for sale	354	3%	15	0%	-	0%	-	0%
Non Current Assets	5,724	43%	6,660	49%	5,387	42%	4,392	43%
Long-term investments	221	2%	337	2%	577	4%	958	9%
Restricted cash	-	0%	-	0%	-	0%	-	0%
Property, plant and equipment	2,073	16%	2,733	20%	2,504	19%	1,957	19%
Goodwill	-	0%	304	2%	508	4%	151	1%
Intangible assets, net	3,430	26%	3,286	24%	1,798	14%	1,326	13%
Deferred income tax asset	-	0%	-	0%	-	0%	-	0%
Total Assets	13,165	100%	13,731	100%	12,875	100%	10,205	100%
Total Liabilities	3,705	28%	3,631	26%	3,937	31%	2,602	25%
Current Liabilities	3,460	26%	3,389	25%	3,630	28%	2,432	24%
Accounts payable	1,064	8%	744	5%	832	6%	615	6%
Accrued liabilities	1,854	14%	2,382	17%	2,511	20%	1,638	16%
Income taxes payable	-	0%	-	0%	179	1%	96	1%
Deferred revenue	542	4%	263	2%	108	1%	68	1%
Deferred income tax liability	-	0%	-	0%	-	0%	15	0%
Current portion of long-term debt	-	0%	-	0%	-	0%	-	0%
Non-Current Liabilities	245	2%	242	2%	307	2%	170	2%
Long-term debt	-	0%	-	0%	-	0%	-	0%
Deferred income tax liability	245	2%	232	2%	276	2%	141	1%
Income taxes payable	-	0%	10	0%	31	0%	29	0%
Shareholders' Equity	9,460	72%	10,100	74%	8,938	69%	7,603	75%
Capital stock and additional paid-in capital	2,431	18%	2,446	18%	2,359	18%	2,372	23%
Treasury stock	-	-	-	-	-	-	-	-
February 28, 2015	234	2%	299	2%	160	1%	94	1%
Retained earnings	7,267	55%	7,913	58%	6,749	52%	5,274	52%
Additional paid-in capital	-	0%	-	0%	-	0%	-	0%
Accumulated other comprehensive income	4	0%	40	0%	10	0%	51	0%
Total Equity & Liabilities	13,165	100%	13,731	100%	12,875	100%	10,205	100%

Appendix 5 – Income Statement (The Revival (October 2013 – present))

BlackBerry Limited

In millions USD

INCOME STATEMENT

In millions USD	Years						
	Feb. 29, 2016	Δ%	Feb. 28, 2015	Δ%	Mar. 1, 2014	Δ%	Mar. 2, 2013
Revenue	2.160	-35%	3.335	-51%	6.813	-38%	11.073
Hardware and other	887	-40%	1.481	-62%	3.880	-44%	6.902
Service and software	1.273	-31%	1.854	-37%	2.933	-30%	4.171
Cost of sales	1.219	-30%	1.731	-75%	6.856	-10%	7.639
Hardware and other	939	-32%	1.382	-65%	3.985	-40%	6.627
Inventory write-down	36	-62%	95	-94%	1.616	571%	241
Supply commitment charges (recovery)	-3	91%	-33	-104%	782	307%	192
Service and software	247	-14%	287	-39%	473	-18%	579
Gross margin	941	-41%	1.604	3830%	-43	-101%	3.434
Operating expenses	1.164	-43%	2.027	-72%	7.120	52%	4.669
Research and development	469	-34%	711	-45%	1.286	-15%	1.509
Selling, marketing and administration	712	-21%	904	-57%	2.103	0%	2.111
Amortization	277	-7%	298	-51%	606	-15%	714
Impairment of long-lived assets	136	-	34	-	2.748	-	-
Impairment of goodwill	-	-	-	-	-	-	335
Debentures fair value adjustment	-430	-638%	80	-79%	377	-	-
Litigation	-	-	-	-	-	-	-
Operating loss	-223	47%	-423	94%	-7.163	-480%	-1.235
Investment income (loss), net	-59	-255%	38	281%	-21	-240%	15
Loss from continuing operations before income taxes	-282	27%	-385	95%	-7.184	-489%	-1.220
Recovery of income taxes	-74	9%	-81	94%	-1.311	-121%	-592
Loss from continuing operations	-208	32%	-304	95%	-5.873	-835%	-628
Loss from discontinued operations, net of tax	-	-	-	-	-	-	-18
Net Income	-208	32%	-304	95%	-5.873	-809%	-646

Appendix 6 – Balance Sheet (The Revival (October 2013 – present))

BlackBerry Limited		BALANCE SHEET					
In millions USD		Years					
		Feb. 29, 2016	%	Feb. 28, 2015	%	Mar. 1, 2014	% Mar. 2, 2013
Current Assets		3.011	54%	4.167	64%	4.848	64% 7.441
Cash and cash equivalents		957	17%	1.233	19%	1.579	21% 1.549
Short-term investments		1.420	26%	1.658	25%	950	13% 1.105
Accounts receivable, net		338	6%	503	8%	972	13% 2.353
Other receivables		51	1%	97	1%	152	2% 272
Inventories		143	3%	122	2%	244	3% 603
Income taxes receivable		-	-	169	3%	373	5% 597
Other current assets		102	2%	375	6%	505	7% 469
Deferred income tax asset		-	-	10	0%	73	1% 139
Assets held for sale		-	-	-	-	-	- 354
Non-Current Assets		2.523	46%	2.391	36%	2.704	36% 5.724
Long-term investments		197	4%	316	5%	129	2% 221
Restricted cash		50	1%	59	1%	-	- -
Property, plant and equipment, net		412	7%	556	8%	1.136	15% 2.073
Goodwill		618	11%	85	1%	-	- -
Intangible assets, net		1.213	22%	1.375	21%	1.439	19% 3.430
Deferred income tax asset		33	1%	-	-	-	- -
Total Assets		5.534	100%	6.558	100%	7.552	100% 13.165
Total Liabilities		2.326	42%	3.127	48%	3.927	52% 3.705
Current Liabilities		1.039	19%	1.372	21%	2.268	30% 3.460
Accounts payable		270	5%	235	4%	474	6% 1.064
Accrued liabilities		368	7%	667	10%	1.214	16% 1.854
Income taxes payable		9	0%	-	-	-	- -
Deferred revenue		392	7%	470	7%	580	8% 542
Deferred income tax liability		-	-	-	-	-	- -
Current portion of long-term debt		-	-	-	-	-	- -
Non-Current Liabilities		1.287	23%	1.755	27%	1.659	22% 245
Long-term debt		1.277	23%	1.707	26%	1.627	22% -
Deferred income tax liability		10	0%	48	1%	32	0% 245
Income taxes payable		-	-	-	-	-	- -
Shareholders' Equity		3.208	58%	3.431	52%	3.625	48% 9.460
Capital stock and additional paid-in capital		2.448	44%	2.444	37%	2.418	32% 2.431
Treasury stock		-	-	-	-	-179	-2% -234
February 28, 2015 - nil (March 1, 2014 - 7,659,685)		-	-	-	-	-	- -
Retained earnings		768	14%	1.010	15%	1.394	18% 7.267
Additional paid-in capital		-	-	-	-	-	- -
Accumulated other comprehensive loss		-8	0%	-23	0%	-8	0% -4
Total Equity & Liabilities		5.534	100%	6.558	100%	7.552	100% 13.165

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BLACKBERRY LIMITED²

PART II - SOLUTIONS

2.1. STAGE 1 - THE RISE (THE BEGINNING – 2011)

(1) SWOT Analysis

Strengths

- Phones networking security: Security is the main goal of the company. The release of their devices includes an encrypted network, which allows operating in an almost totally secure environment. This is important especially nowadays, since the risk of getting hacked is extremely high. For this reason, many governments have already adopted BlackBerry.
- Enterprise Mobility Management (EMM) Market: Thanks to the acquisition of the competitor company Good Technology Corp., BlackBerry is now owning the most secure EMM platform and the 19% of the market, being the leader.
- QWERTY keyboard: The company has a long experience in keyboard phone and the great majority of competitors don't use it anymore. However, there are a lot of business users who prefer it.

Weaknesses

- Lack of applications: BlackBerry offers limited applications on its app stores that result to be unattractive for both clients and app developers.
- Poor marketing: The company's marketing expenses are really low and they don't have a clear marketing strategy. Their inability to market the brand also resulted in declining brand reputation and low customer loyalty.

² Case written by Tubinnisa Boru, Melisa Gunes, Julian Georg May, Jan-Niklas Lindgens and Alessandro Reati; with the supervision of Professor Oriol Amat, UPF Barcelona School of Management, 2016.

- Government dependency: They are receiving great benefit now but they should not focus too much on these clients because in the long-term the contracts could not been guaranteed.

Opportunities

- Security and privacy: They are already the leaders in security networking but the need from consumers, enterprises and governments is still growing, simultaneously with the growth of the hacker phenomenon
- Exploitation of growing demands: There are growing demands in tablets, socials and cloud services that are part of BlackBerry's know-how.

Threats

- Technological change: It is not just for BlackBerry, but tech companies are always under pressure to be on time following IT fast development.
- Market saturation and competition: Most of the market has a smart device. Moreover, BlackBerry is threatened on both device market and now also on security network services.

(2) Identify the strengths and weaknesses of Blackberry's financial situation.

Analysis of the Balance Sheet (years 2006 - 2011)

BlackBerry Limited

BALANCE SHEET

In millions USD	Years											
	Feb. 26, 2011	%	Feb. 27, 2010	%	Feb. 28, 2009	%	Mar. 1, 2008	%	Mar. 3, 2007	%	Mar. 4, 2006	%
Current Assets	7.488	58%	5.813	57%	4.842	60%	3.477	63%	1.919	62%	1.259	54%
Non-Current Assets	5.387	42%	4.392	43%	3.260	40%	2.034	37%	1.170	38%	1.056	46%
Total Assets	12.875	100%	10.205	100%	8.101	100%	5.511	100%	3.089	100%	2.314	100%
Total Liabilities	3.937	31%	2.602	25%	2.227	27%	1.577	29%	605	20%	319	14%
Current Liabilities	3.630	28%	2.432	24%	2.115	26%	1.474	27%	547	18%	284	12%
Non-Current Liabilities	307	2%	170	2%	112	1%	103	2%	59	2%	35	2%
Shareholders' Equity	8.938	69%	7.603	75%	5.874	73%	3.934	71%	2.484	80%	1.995	86%
Total Equity & Liabilities	12.875	100%	10.205	100%	8.101	100%	5.511	100%	3.089	100%	2.314	100%

- Indebtedness: **STRENGTH** (see the table below)

BlackBerry has a very low *debt-ratio*, indicating that the company is mainly equity-financing its assets. Although the *quality of the debt*, explaining what amount of the total liabilities are

due in the short-term, is relatively high, this doesn't imply a weakness in the case of BlackBerry. As the considerably high *repayment capacity* shows, the company generates a lot of cash from its operations that can easily cover the financial short-term obligations deriving from the loans. Furthermore, the already mentioned low *debt ratio* shows that the company has a strong equity foundation.

BlackBerry Limited

RATIOS

	Years						Optimal Value
	Feb. 26, 2011	Feb. 27, 2010	Feb. 28, 2009	Mar. 1, 2008	Mar. 3, 2007	Mar. 4, 2006	
DEBT AND CAPITALIZATION							
Debt = Liability / Assets	0,31	0,25	0,27	0,29	0,20	0,14	0,5 - 0,6
Debt Quality = Current Liabilities / Total Liabilities	0,92	0,93	0,95	0,93	0,90	0,89	Reduced
Repayment Capacity = Cash flow / Loans	1,53	1,69	1,69	2,03	2,46	2,82	High

- **Short-term solvency: STRENGTH** (see the table below)

As already mentioned above, the company's solvency is a clear strength. However, by having a closer look at some of the key liquidity ratios, we see that all of them are considerably high which could be an indication for that the company is making too little use of its solvency and should invest more in order to expand its operations.

BlackBerry Limited

RATIOS

	Years						Optimal Value
	Feb. 26, 2011	Feb. 27, 2010	Feb. 28, 2009	Mar. 1, 2008	Mar. 3, 2007	Mar. 4, 2006	
LIQUIDITY							
Liquidity = Current Assets / Current Liabilities	2,06	2,39	2,29	2,36	3,51	4,43	>1,5
Treasury = Debtors + Cash / Current Liabilities	1,76	1,94	1,79	1,94	2,93	3,46	±1
Acid Test = Cash / Current Liabilities	0,49	0,64	0,39	0,80	1,24	1,62	0,2 - 0,3
Z (UPF) = -3,9 + 1,28 CA/CL+ 6,1 E/A+ 6,5 NI/A+ 4,8 NI/E	6,53	6,82	6,52	6,58	8,05	8,98	>0

- **Terms of payment and payment management: WEAKNESS** (see the table below)

Looking at how BlackBerry manages its cash cycle, we can see that the company takes more time to collect the money (*days receivables*) from its customers, than it uses to pay its suppliers (*days payables*). This is usually considered to be a weakness in a company,

however, considering the previously mentioned high solvency of the company, this will most likely not have a big negative impact on the company's operations.

BlackBerry Limited

RATIOS

	Years						Optimal Value
	Feb. 26, 2011	Feb. 27, 2010	Feb. 28, 2009	Mar. 1, 2008	Mar. 3, 2007	Mar. 4, 2006	
DEADLINES							
Days receivable (days) = Clients / Daily Sales	72,52	63,32	69,67	71,35	68,82	55,70	Low
Days payables (days) = Suppliers / Daily cost of sales	27,40	26,82	27,42	33,78	34,47	37,44	High

- *Asset management: STRENGTH* (see the table below)

The overall asset management of BlackBerry is very good. As we can see from the table below, *non-current- and current asset turnover ratios* of the company have always been high over the considered time period and keep increasing even.

BlackBerry Limited

RATIOS

	Years						Optimal Value
	Feb. 26, 2011	Feb. 27, 2010	Feb. 28, 2009	Mar. 1, 2008	Mar. 3, 2007	Mar. 4, 2006	
ASSETS MANAGEMENT							
Non-current assets turnover = Sales / Non-current assets	3,70	3,40	3,39	2,95	2,60	1,96	High
Current assets turnover = Sales / Current assets	2,66	2,57	2,29	1,73	1,58	1,64	High

Analysis of the Profit and Loss Account (years 2006 - 2011)

- *Analysis of the sales: STRENGTH* (see the table below)

The *growth of sales* of BlackBerry is one of the biggest strengths of the company in the considered time period. Revenues increased almost 10times between 2006 – 2011 and show the company's huge success during this time.

BlackBerry Limited

INCOME STATEMENT

In millions USD

	Years											
	Feb. 26, 2011	% Feb. 27, 2010	% Feb. 28, 2009	% Mar. 1, 2008	% Mar. 3, 2007	% Mar. 4, 2006	%					
Revenue	19.907	100%	14.953	100%	11.065	100%	6.009	100%	3.037	100%	2.066	100%
Cost of sales	11.082	56%	8.369	56%	5.968	54%	2.929	49%	1.379	45%	926	45%
Gross margin	8.825	44%	6.584	44%	5.097	46%	3.081	51%	1.658	55%	1.140	55%
Operating expenses	4.189	21%	3.346	22%	2.375	21%	1.349	22%	851	28%	725	35%
Operating profit	4.636	23%	3.238	22%	2.722	25%	1.731	29%	807	27%	415	20%
Net Income	3.411	17%	2.457	16%	1.893	17%	1.294	22%	632	21%	375	18%

- Analysis of expenditures: *STRENGTH*

Overall, we can say that BlackBerry manages its expenses very well. Although costs of sales are increasing over time, resulting in a decreasing gross margin, the gross margin is still 44% of the revenues in 2011 with operating expenses of around 20% of revenues, a fairly low value. Furthermore, the company manages to achieve a high net income from its operations, something that also indicates the company's strong ability in managing its expenditures.

- Analysis of the profitability and growth: *STRENGTH* (see the table below)

Looking at the table below, we can say that BlackBerry is making its shareholders very happy. A *return on equity* of 38% is a really high value, making the company be very attractive for investors. Besides that, BlackBerry also shows a very high *return on investment*, indicating that the company achieves a high return from the use of its assets.

BlackBerry Limited	RATIOS						Optimal Value
	Years						
	Feb. 26, 2011	Feb. 27, 2010	Feb. 28, 2009	Mar. 1, 2008	Mar. 3, 2007	Mar. 4, 2006	
PROFITABILITY							
Return on investment = EBIT / Assets	36%	32%	34%	31%	26%	18%	High
Return on equity = Net Income / Equity	38%	32%	32%	33%	25%	19%	> shareholders opportunity cost

2.2 STAGE 2 – THE DECLINE (2011 – SEPTEMBER 2013)

(1) If you were the CEO of Blackberry, would you take Fairfax Financial's offer?

Please justify your answers based on numbers.

In order to answer this question, it is useful to analyse deeply the situation of the company between 2011 and 2013 and to interpret the environment and the opportunities.

First of all, the effects deriving from the competition of Apple and Android are not visible in the financial statements of February 2011 since they started to affect the company during the year 2011. In fact, we can see that the company is still growing and generating considerable profits in comparison to the previous year.

In 2012, Blackberry sees its sales decreasing by 7%, its first decline in sales in its history. However, the biggest problem was visible in its net income, which, even if it is still positive, decreased by 66%. Not less important, also the company's shares' value lost about the same amount, ultimately resulting in a significantly decreased ROE.

Whereas the situation was already bad in 2012, the next year was even worse. Besides sales continuing to decrease drastically, the company wasn't profitable anymore and generated a net loss of roughly \$650m in 2013. In consequence, the share price kept losing value and the investors became more and more concerned about their investments in the company.

In millions USD	Years					
	Mar. 2, 2013	Δ%	Mar. 3, 2012	Δ%	Feb. 26, 2011	Δ%
<i>Revenues</i>	11,073	-40%	18,423	-7%	19,907	33%
<i>Operating expenses</i>	4,669	-8%	5,078	21%	4,189	25%
Net Income	-646	-155%	1,164	-66%	3,411	39%
Loss per share	-1.23	-155%	2.22	-65%	6.36	46%
ROE	-7.07	-159%	0.12	-70%	0.38	

At this moment, the circumstances seemed to be very bad for Blackberry and an offer to sell the company for 4.7 billion dollars could have been a good alternative. However, there are other important factors to take into consideration.

Even though the company experienced this decline in sales up to the point of generating a negative net income at the end of fiscal year 2013, they still managed to strengthen their financial foundation by improving its equity / debt relation from 2011 to 2013. This finding suggests that the company, judging from a financial perspective, is able to manage this fall very well and still has the financial means to get back on track.

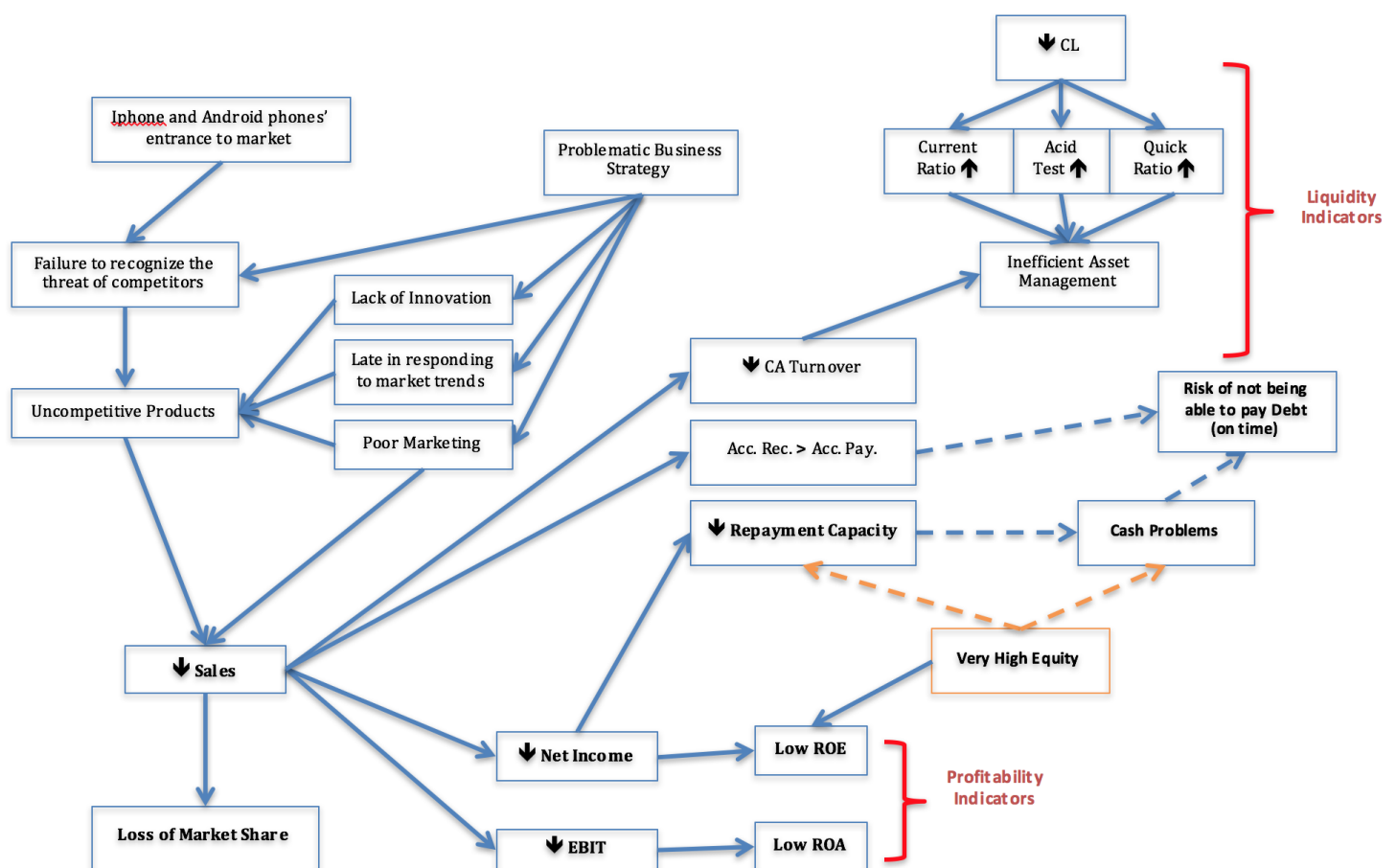
In millions USD	Years					
	Mar. 2, 2013	%	Mar. 3, 2012	%	Feb. 26, 2011	%
Total Liabilities	3,705	28%	3,631	26%	3,937	31%
<i>Current Liabilities</i>	3,460	26%	3,389	25%	3,630	28%
<i>Non-Current Liabilities</i>	245	2%	242	2%	307	2%
Shareholders' Equity	9,460	72%	10,100	74%	8,938	69%
Total Equity & Liabilities	13,165	100%	13,731	100%	12,875	100%
Indebtedness = Liability / Assets	0.28		0.26		0.31	
Liquidity = Current Assets / Current Liabilities	2.15		2.09		2.06	

Furthermore, we have to underline that Blackberry is a really well-known company which has been a leader in the smartphone's market till few years ago, and for this reason maintain a certain image and power that could help them to start to rise again, maybe even in another market. Moreover, we are talking about a company operating in a technology-based industry where changes recurred often and everywhere, therefore, could also be favourable for the company in the close future again.

Finally, the price proposed from Fairfax Financial is almost 20% lower than the actual value of the company (since the proposed price of \$9 per share was much lower than the real one on the market of about \$11)*.

In conclusion, all these reasons for keeping the company probably exceed the cons which is why refusing the offer made by Fairfax Financial seems to be the right decision.

(2) Construct a Cause & Effect Diagram



After identifying the main strengths and weaknesses of the company, cause and effect diagram brings out the consequences of these important points, in terms of profitability and liquidity.

First of all, generating an increasing revenue from 2006 to 2011, caused Blackberry not being able to recognize the threat of new competitors' penetration to the market (Apple and Samsung). As a consequence, Blackberry could not take any measures such as changing marketing strategy or producing innovative products in order to make its market share stable and its falling down started in 2011. The huge decrease in sales caused the company to change from being a profitable company to an unprofitable one. It is seen from the ratios which are the main indicators of profitability. Return on Equity (ROE) and Return on Assets (ROA) must be as high as possible in order to be able to say the company is profitable. Analyzing ROE, for a company to be profitable for shareholders, it is essential that profitability exceeds the profitability that shareholders would get in similar risk investments. In this case, Blackberry's ROE decreases year by year and becomes negative in 2013 because of the negative net income. ROA, which indicates the effectiveness of the assets, turns also negative in the same year because of the negative EBIT. (In 2012, their ROA ratio is 0,109; in 2013, -0,094 and in 2016, -0,040).

In terms of asset management, because of the decrease in sales, turnover ratios which are supposed to be the highest possible, go down year by year which means that Blackberry is underutilizing its assets. In addition to that, it is also seen from the liquidity ratios that the company manages its assets inefficiently. Short-term solvency ratios which are the current, acid-test and quick ratios are higher than the optimal values because of the decline in current liabilities between the years 2013 and 2016. Looking at these ratios, Blackberry may have an asset management problem.

It is seen that the consequence of the main problem "drop in sales" affects also the indebtedness and the payment management of the company. Because of this downtrend in revenues, repayment capacity of the firm goes down and besides, day receivables become longer compared to day payables. This means that collecting money from the customers takes more time than paying to suppliers. Normally, the variations in these ratios may cause some cash problems and end up with not being able to pay the debts on time; but for Blackberry

having a high equity prevents to face this kind of solvency problems, that's why the arrows that point the cash problems and potential risk of paying debt on time are dashed.

In conclusion, at the beginning of the rise, not to do any market research, not to pay attention neither to the market trends nor to the competitors caused Blackberry to lose market share and become an unprofitable company.

2.3 STAGE 3 – THE REVIVAL (OCTOBER 2013 – PRESENT)

(1) Identify the “Key Success Factors” of Blackberry.

BlackBerry has identified the following core key success factors for the company's success in all areas of its business:

Seeking strategic alliances and relationships

BlackBerry intends to continue developing new and existing strategic alliances, which may involve closer collaboration with other technology leaders to maintain and enhance the company's competitive position. Potential areas of strategic alliances and relationships include, for instance, software application developers and companies, global telecommunications carriers, intranet and internet applications and portal companies, internet social networking providers, multimedia content providers, gaming platform vendors, consumer electronics retailers, OEMs, microchip and other manufacturers, and global systems integrators.

Targeted acquisition and investment strategy

BlackBerry will continue to evaluate potential acquisitions and make investments in products that provide opportunities for growth or expansion of the BlackBerry value proposition. These may include acquisitions and investments related to software, wireless solutions, security and applications, among others. The company also intends to continue to acquire rights in intellectual property in various forms and technologies when appropriate opportunities arise.

Expanding distribution

BlackBerry's ability to grow its service and software revenue is dependent on its ability to expand its distribution capability, including developing and expanding relationships with indirect partners, resellers and carriers. Therefore, the company is also focusing on building its direct enterprise sales force.

Achieving best in class operational metrics

The Company has significantly improved its operational metrics through the Resource Alignment Program and its previous cost and management initiatives. BlackBerry's 'Resource and Alignment Program' and previous cost and management initiatives have significantly helped to further simplify business processes and target areas of the business where greater efficiencies can be achieved. The company is focused on driving best-in-class operational metrics across all of its businesses, with the goal of continuing to reduce organizational complexity while increasing individual and business unit accountability and aligning employees behind the BlackBerry vision, mission and values.

Continuing to invest in highly qualified personnel

The company believes that the quality and skills of its employees are key factors in achieving success. Therefore, BlackBerry intends to retain, attract and develop talented employees to drive organizational performance and foster an environment of innovation, learning and development within a cost effective organization.

(2) What measures should BlackBerry take in order to manage the operational turnaround?

Looking at the financial development of BlackBerry after the company has rejected the acquisition offer from *Fairfax*, we see that the company still faces serious declines in their revenues and keeps generating net losses, indicating that the company hasn't managed a successful turnaround so far (*see Appendix 5, p.13*). As the table below shows, sales from BlackBerry's 'Hardware and other' business unit generate a total of \$887m in revenues, however, account for \$939m out of \$1219m of the cost of sales the company had to deal with in 2016, showing that this business unit has developed from being the engine of the company to being unprofitable in just a few years. This finding suggests that BlackBerry, as the first

measure, should further accelerate its transition from being a hardware and device producing company to focusing on enterprise mobility related software and services up to the point of entirely ceasing the ‘Hardware and other’ business unit. This measure, in the first place, is a strategic one that the company has already started to implement, however, needs to be further intensified in order to optimize the company’s operations and make the company be profitable again. Considering that BlackBerry is still producing smartphones and other hardware devices and, furthermore, has to also comply with its guarantee obligations, this transition will require some time and cannot be made in just one year. A feasible time period for this transition up to entirely ceasing the ‘Hardware and other’ business unit could be between two or three years. We will later on demonstrate how this transition would look like from a financial point of view by looking at the impacts on the income statement and balance sheet.

BlackBerry Limited

In millions USD

INCOME STATEMENT

In millions USD	Years							
	Feb. 29, 2016	Δ%	Feb. 28, 2015	Δ%	Mar. 1, 2014	Δ%	Mar. 2, 2013	
Revenue	2.160	-35%	3.335	-51%	6.813	-38%	11.073	
Hardware and other	887	-40%	1.481	-62%	3.880	-44%	6.902	
Service and software	1.273	-31%	1.854	-37%	2.933	-30%	4.171	
Cost of sales	1.219	-30%	1.731	-75%	6.856	-10%	7.639	
Hardware and other	939	-32%	1.382	-65%	3.985	-40%	6.627	
Inventory write-down	36	-62%	95	-94%	1.616	571%	241	
Supply commitment charges (recovery)	-3	91%	-33	-104%	782	307%	192	
Service and software	247	-14%	287	-39%	473	-18%	579	
Gross margin	941	-41%	1.604	3830%	-43	-101%	3.434	

This measure is also supported by looking at BlackBerry’s market share development (as we saw in the previous parts) in the smartphone industry, the main driver for the company’s revenues from the ‘Hardware and other’ business unit. As this graph shows, the company lost almost its entire market share in this industry.

Furthermore, by comparing BlackBerry’s financial situation to its main competitors in the smartphone industry, Samsung and APPLE, we can see that these companies not only generate multiples in revenues and net incomes, but also have much lower relative operating expenses (operating expenses/revenues) compared to Blackberry (*see the graph below*).

These numbers, apart from indicating Samsung’s and APPLE’s dominance in the smartphone industry, show a lack in the efficiency of BlackBerry’s operations. While the operating

expenses of BlackBerry are more than half of the revenues the company generates, Samsung and APPLE spend only roughly 25% and 10%, respectively, for their operations.

BlackBerry Limited	INCOME STATEMENT									
In millions USD	Years								SAMSUNG	APPLE
	Feb. 29, 2016	Δ%	Feb. 28, 2015	Δ%	Mar. 1, 2014	Δ%	Mar. 2, 2013	Dec. 31, 2015	Sep. 24, 2016	
Revenue	2.160	-35%	3.335	-51%	6.813	-38%	11.073	177.365	215.639	
Cost of sales	1.219	-30%	1.731	-75%	6.856	-10%	7.639	109.151	131.376	
Gross margin	941	-41%	1.604	3830%	-43	-101%	3.434	68.215	84.263	
Operating expenses	1.164	-43%	2.027	-72%	7.120	52%	4.669	44.867	24.239	
Operating loss	-223	47%	-423	94%	-7.163	-480%	-1.235	23.348	60.024	
Net Income	-208	32%	-304	95%	-5.873	-809%	-646	16.848	45.687	

In consequence, the company should try to significantly reduce its operating expenses and use its newly available resources to expand their activities in the enterprise mobility software and services industry BlackBerry is serving. One way of expanding the company's operations in the 'Service and software' business unit could be the acquisition of competitors and merging their business units with BlackBerry's. Furthermore, strategic alliances and relationships with other technology leaders could also help to strengthen BlackBerry's competitive position and ultimately help to increase revenues.

By looking at the company's financial health and financing structure (*see the table below*), we can see that the company still stands on a solid financial foundation, even after having experienced such enormous losses like in the year 2014, and should therefore be capable to manage this operational turnaround, at least from a financial perspective. As we can see from the table below, BlackBerry shows a healthy degree of indebtedness (debt ratio of 0.42, even lower than what would be considered to be healthy) with a good debt quality of 0.45, implying that financial obligations deriving from current liabilities are relatively low compared to the company's total liabilities. Furthermore, a high liquidity ratio of 2.90 shows that BlackBerry has excessive liquid means which could be used to payback its short-term financial liabilities. These excessive liquid means, however, on the other hand suggest that the company is not making efficient use of its financial resources and should invest this liquidity excess in order to accelerate the strategic transition of their operations. A *Working Capital Surplus* of almost \$2bn indicates that the company has a massive scope for financial investments without having to cut its operational activities and, therefore, supports this measure. Also, the company should further *improve its cash cycle*, making sure that days

payables remain higher than days receivables, something BlackBerry hasn't always managed to achieve in the past.

BlackBerry Limited	RATIOS				
	Years				Optimal Value
	Feb. 29, 2016	% Feb. 28, 2015	% Mar. 1, 2014	% Mar. 2, 2013	
Debt = Total Liabilities / Total Assets	0,42	0,48	0,52	0,28	0,5 - 0,6
Debt Quality = Current Liabilities / Total Liabilities	0,45	0,44	0,58	0,93	Reduced
Liquidity = Current Assets / Current Liabilities	2,90	3,04	2,14	2,15	>1
Working Capital Surplus	1.926	2.541	2.395	3.202	
Days receivable (days) = Clients / Daily Sales	57,12	55,05	52,07	77,56	Low
Days payables (days) = Suppliers / Daily cost of sales	80,84	49,55	25,23	50,84	High
Sales growth = Last year's sales / Previous year sales	-35%	-51%	-38%	-40%	Positive

In conclusion, the operational turnaround seems to rather depend on strategic measures the company has to take, rather than on fundamental changes in the financial foundation of the company in order to keep the company being able to finance their operations.

(3) What are the effects of the recommended measures on BlackBerry's financials?

Ceasing its operations in the 'Hardware and others' business unit in order to achieve the operational turnaround would make a big amount of the company's revenues disappear, yet, help the company significantly in becoming profitable again. As already mentioned above, this transition would require some time, however. For the following scenario, we assumed that this shift in the strategic alignment of the company would take three years until the business unit 'Hardware and other' is entirely ceased. We further assumed that the company could manage to steadily increase revenues in the "Service and software" business unit due to the higher focus on this business unit. Cost of sales from this activity have increased respectively, while cost of sales from 'Hardware and other' decreased in proportion to the decrease in sales. Overall operating expenses have been slightly decreased by 5%, taking into account that extended activities in the enterprise mobility software and services industry consumed part of the decreased operating expenses from the cutback in the 'Hardware and others' business unit. In the future, operating expenses will increase due to extended activities in the 'Service and software' business unit again. Assuming an average tax rate of 20% for our calculation, we can see that the company manages to become profitable in the first year already again. This trend remains positive and net income keeps growing, although the ultimate cease of the 'Hardware and other' business unit in 2019 causes revenues to slightly

decrease. Please see the table below for the calculation of how these measures would affect the income statement of BlackBerry:

BlackBerry Limited		INCOME STATEMENT									
In millions USD											
		Feb. 28, 2019		Mar. 1, 2018		Mar. 1, 2017		Feb. 29, 2016			
			Measures		Measures		Measures		Measures		
Revenue		2.284	100%	-0,55%		2.296	100%	6,88%		2.149	100%
Hardware and other		-	0%	-	310	310	14%	-50%		621	29%
Service and software		2.284	100%	15%		1.986	86%	30%		1.528	71%
Cost of sales		424	19%	-42%		726	32%	-26%		977	45%
Hardware and other		-	0%	-	329	329	14%	-50%		657	31%
Inventory write-down		-	0%	-	13	13	1%	-50%		25	1%
Supply commitment charges (recovery)		-	0%	-	1	1	0%	-50%		2	0%
Service and software		424	19%	10%		385	17%	30%		296	14%
Gross margin		1.860	81%	18%		1.571	68%	34%		1.172	55%
Operating expenses		1.272	56%	15%		1.106	48%	0%		1.106	51%
Operating profit		588	26%	27%		465	20%	606%		66	3%
Net income		471	21%	27%		372	16%	370%		79	4%

The strategic re-alignment would also affect the financial foundation of the company, however, would not significantly change it. In order to expand the business unit ‘Service and software’, BlackBerry would probably have to make some additional investments in their fixed assets like *Property, plant and equipment (PPE)*. These investments can be easily made from the excess liquidity the company can draw on. In the first year of our simulation scenario, an additional investment in PPE of \$400m would be financed by the sale of part of the huge amount of short-term investments. Furthermore, \$200m in cash have been used to further decrease our short-term financial obligations by paying back more than half of our accrued liabilities. The second year of our restructuring scenario of BlackBerry’s operations would require an additional \$300m investment in PPE, again financed by selling part of our short-term investments. Although the shift from \$700m of short-term into long-term assets means shifting roughly 20% of liquid assets to fixed assets, the company remains still very agile with a liquidity- or current-ratio (current assets/current liabilities) of over 2.0, indicating that the company could invest even more if needed. Year 3 of our restructuring scenario doesn’t require any further investments which is why there are no changes in our fictive balance sheet. Please see the table of BlackBerry’s Balance sheet after the restructuring scenario below:

BlackBerry Limited		BALANCE SHEET							
In millions USD		Years							
	Feb. 28, 2019	% Measures	Mar. 1, 2018	% Measures	Mar. 1, 2017	% Measures	Feb. 29, 2016	% Measures	
Current Assets	2.111	40%	2.111	40%	2.411	45%	3.011	54%	
Cash and cash equivalents	757	14%	757	14%	757	14%	957	17%	
Short-term investments	720	13%	720	13%	-300	19%	-400	26%	
Non-Current Assets	3.223	60%	3.223	60%	2.923	55%	2.523	46%	
Property, plant and equipment, net	1.112	21%	1.112	21%	300	15%	400	7%	
Total Assets	5.334	100%	5.334	100%	5.334	100%	5.534	100%	
Total Liabilities	2.126	40%	2.126	40%	2.126	40%	2.326	42%	
Current Liabilities	839	16%	839	16%	839	16%	1.039	19%	
Accrued liabilities	168	3%	168	3%	168	3%	-200	7%	
Non-Current Liabilities	1.287	24%	1.287	24%	1.287	24%	1.287	23%	
Shareholders' Equity	3.208	60%	3.208	60%	3.208	60%	3.208	58%	
Total Equity & Liabilities	5.334	100%	5.334	100%	5.334	100%	5.534	100%	

In order to see how these strategic and financial measures affect some of the company's key performance indicators, see the '*Breakdown of Probability*' table below. As can be seen, the measures we would recommend BlackBerry to implement would help to improve some of the most important indicators for the profitability of the company. Restructuring the company up to making it profitable again results in a positive ROE and makes the company, ultimately, be more attractive for investors. Furthermore, increased revenues and decreased cost of sales in combination with a moderate increase in operating expenses also lead to an improved operating result and, finally, indicate that the operational turnaround can be accomplished.

BlackBerry Limited

BREAKDOWN OF PROFITABILITY

	Years					
	Feb. 28, 2019	%	Mar. 1, 2018	%	Mar. 1, 2017	% Feb. 29, 2016
ROE	0,147	27%	0,116	370%	0,025	138%
EBIT/Sales	0,258	27%	0,203	560%	0,031	130%
Sales/Assets	0,428	-1%	0,431	7%	0,403	3%
(Assets/Equity)*(EBT/EBIT)	1,663	0%	1,663	0%	1,663	22%
Net Profit/EBT	0,800	0%	0,800	-33%	1,200	63%

(Note: the effects of the strategic and financial measures on BlackBerry's cash-flow statements for the considered time period have been ignored due to the lack of information)