A competitive analysis of Intel and Intel's MeeGo

platform using multiple Frameworks

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Abstract

This paper will discuss 3 different competitive frameworks, the Michael Porter's five-forces model, The Delta Model, and the Resourced Based View (RBV) of a firm and how Intel fits in each today and using those frameworks, how Intel would fit in the mobile (non-pc) platforms with their new Platform, MEEGO. With the analysis, the goal is to achieve a clearer understanding of what should be Intel's Strategy to compete in this new marketplace of internet appliances.

Introduction

Intel has created a new mobile internet platform targeting the smart phone, mobile appliance and internet tablet markets. The new platform is called MEEGO. This is not the first time Intel has delved into this platform only to change direction and abandon its phone and tablet efforts [4]. The following questions stand out that need to be analyzed and possible answered:

- How is this different from previous phone and tablet endeavors by Intel?
- How will Intel compete with the iPhone, iPad, and the Android platforms? Is Intel too late to the game to be a major player?

What is the Meego Platform?

MeeGo is an open source operating system hosted by the Linux Foundation [8] that combines Intel's Moblin and Nokia's Maemo projects into a single platform for the next generation of tablets, pocket-able computers, NETBooks, automotive in-vehicle infotainment, and more [6].

MeeGo, along with AppUp(Intel's Meego application developer program [7]), offer device makers and service providers an open, top-to-bottom solution with software, apps, and an Intel-backed developer program working behind the scenes.

Literature Review

Intel's past and present competitive strategies

Intel is a major manufacturer for microprocessors for personal computers for the consumer market and workstation and servers for business. In 2010, Intel had a market share 80.7% of the microprocessor market, a gain of 1.1% from the previous year. In 2010, Intel earned 86.4% share in the mobile PC processor segment [1]. They currently do not have any market share in the mobile phone market. The market share that they have in the mobile tablet market is related to the mobile PC market.

Delta Model Analysis

What is the strategic position that is allowing Intel to have such a dominate market share? By partnering with Microsoft, over the past 30 years Intel has managed to achieve a "System Lock-In" position in the PC and laptop market using the Delta Model for analysis of their strategic position.

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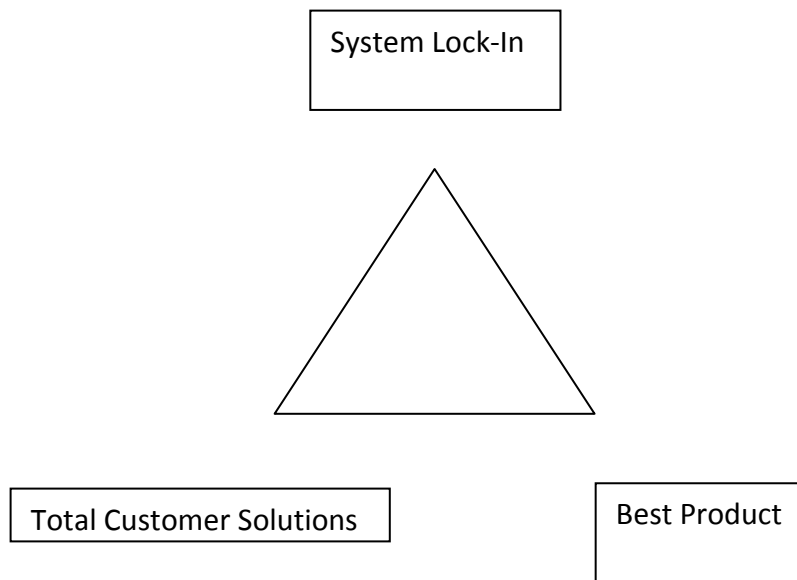
Figure 1.   The Delta Model Triangle

Not only has Intel achieved system lock-in, they have almost a competitor lock-out (do to the high cost of semiconductor manufacturing and research).   The closet competitor is AMD, has a market share of 19.0%, but struggles to be profitable [1]. In contrast, Intel had a record breaking Q42010 of $11.5 billion in revenue for total of $43.6 billion in sales. Intel posted a net income of $3.4 billion for the quarter and

a total profit for the year at $11.7 billion [2]. They also have set many proprietary standards which they license to a select few.

To achieve system lock-in, a company needs to have market dominance, system economics, and achieve a *complementor* share. Intel and Microsoft have achieved this during the last century which resulted in one of the most successful business ventures ever [3]. Intel also has customers such as Dell, HP, ACER, Toshiba, and many others producing PCs, Laptops, and servers that help reinforce Intel's market position and add to the value chain. Suppliers, such as Semiconductor equipment manufacturers, produce leading edge manufacturer equipment for Intel, but are also able to sell the same equipment to other customers after Intel has gone into production and benefit from the relationship.

Intel's suppliers and customers are their natural partners. Intel has cultivated joint structures and value propositions. The chain of interrelationships often extends beyond the customer to include the final consumer [3]. The figure below illustrates the value chain that has been created.
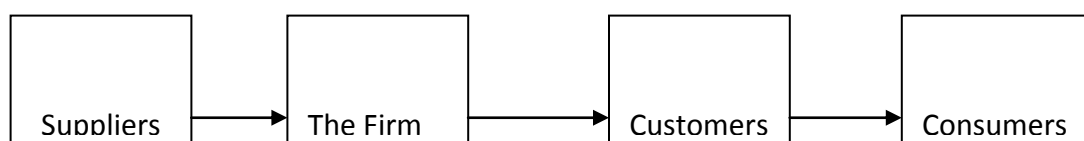
| Suppliers | → | The Firm | → | Customers | → | Consumers |

Figure 2. Integrated Value Chain

Intel's competitive position using the Porter Five Forces Framework
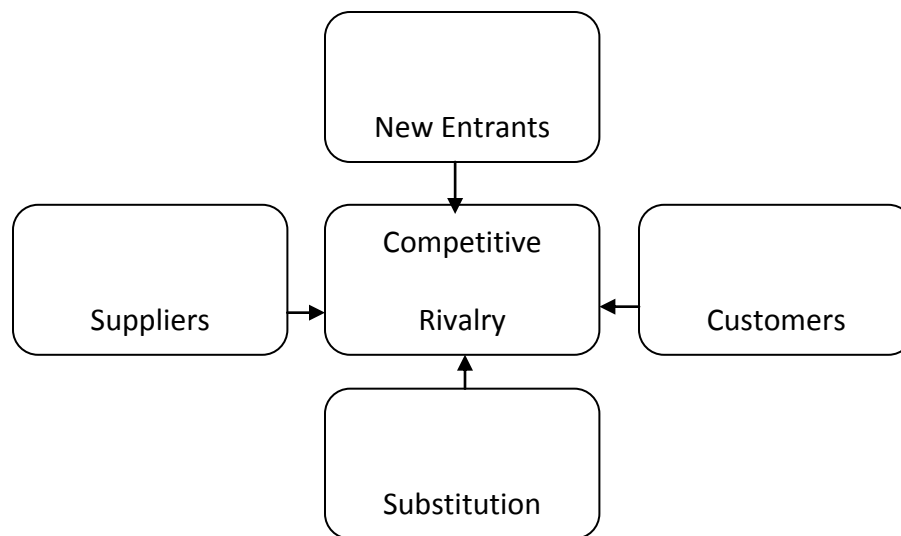

Figure 3. Porter's Five Forces

One of the most influential strategic frameworks has been Michael Porter's Five

Forces Model [10]. Using Porters model, we see that the *competitive rivalry* is

between Intel and AMD. As stated before, Intel has the dominate market share and

the lower cost manufacturer.

The *threat of new entrants* is minimal when it comes to competing in semiconductor

manufacturing. Intel can design and manufacture microprocessors far cheaper than

its competitors. A new entrant can design a new product, but it will have to compete in a non-personal computer field, which Intel dominates.

The *bargaining power of suppliers* comes into question. There are only a few companies that design the equipment that Intel needs, but those suppliers depend on Intel's huge R&D expenditures to help them develop their own next generation equipment. Bargaining power is medium to low. This is an interesting fact. Intel is actually a supplier to PC makers and by standardizing PCs, it encouraged price-based rivalry and shifted power to suppliers [9].

Substitution is low to medium for consumers. They can choose other devices, as some are doing with smart phones and tablets like the iPAD, but currently, consumers are choosing to purchase both a laptop and a iPAD, not just the iPAD. That could change as tablets evolve in the future. In the server market, Intel has a 97% market share and that will not change in the near future.

Consumers (or customers) can substitute an Intel based computer with another type of device, but presently, Intel is their dominate choice. They are given multiple levels of performance in the desktops, nettops, notebooks and netbooks, but the higher end products are the Intel based computers. Again, this is low to medium.

Intel is sitting at a very high competitive advantage in the personal computer and server market for microprocessors.
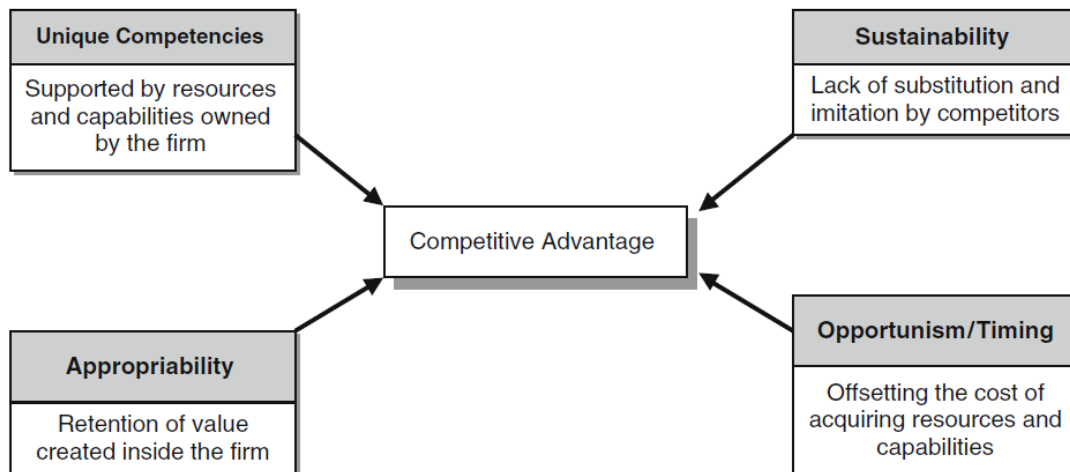
Resourced based view of a firm

Fig. 4 The resource-based view of the firm [5]

The Resource-Based View of the firm represents is based on market-driven factor considerations and central forces of competitive advantage are factor-driven; that is, they depend on the firm's development of resources and capabilities [10].

Intel has *unique resources*, which include world the leading edge chip designers, factories that are world class, and processes that gives them a generational lead on their closest competitor.

Intel has a wealth of Intellectual property and fights vigorously to defend it. They have learned over the years how to build on skills acquired and use them for the next generation of microprocessors and memory products. *Appropriability* is a trait of Intel.

Intel has delivered a CPUs that are faster, smaller, and cheaper as compared to the previously generation. Partnering with Microsoft and others has created value. The costs in manufacturing equipment and design research are hard to match. Its closest competitor, AMD, as stated earlier, has great difficulty in trying to match Intel and fails to be as profitable. It has been to Intel's competitive advantage to be *sustainable*.

As was pointed out with sustainability, *Opportunism and Timing* is the final necessary condition for competitive advantage. The cost incurred in acquiring the resources must be lower than the value created by them. Intel has been able to have profit margins of 50%, 60% or greater through most of their corporate history [11].

Discussion

What strategy should be to move into the market for the MeeGo Platform?

Intel faces a big challenge. The smart phone and internet tablet market are growing

at a fast pace. Intel, which had partnered with Nokia, was surprised when Nokia

decided to partner with Microsoft on Feb 11 this year [12]. The announcement

attracted a lot of press and public discussion.

In a quote, from RCRWireless News on 2-16-11:

It's common knowledge that Intel is pretty loaded, and Microsoft Corp. has employed the

"Develop for our platform and we'll pay you a ton of money" strategy to relative success

in the past, however huge question marks still loom over the question of whether MeeGo

can become a viable platform in the already-overcrowded mobile devices arena. With

iOS, Android and webOS all vying for consumer attention – not to mention being

established and backed by the biggest names in the industry – in both the smart phone

and tablet space, our gut says "No." [13]

Below is a Statement from Intel regarding the news from Nokia:

By now you've probably heard that today, Nokia announced a new relationship with

Windows focused around handsets and Windows 7. While Nokia mentioned they will

still participate in the MeeGo ecosystem and ship a MeeGo-based product this year, they

outlined a primary strategy strongly aligned with Microsoft.

Although Nokia has been an important partner to Intel and MeeGo and we are

disappointed by this decision, it's important to know that this is by no means the end of

MeeGo or the end to Intel's commitment and the continued progress MeeGo has made and is making to the multi-device ecosystem.

Our strategy has always been to provide choice when it comes to operating systems. MeeGo is one of those choices. We support a port of choice strategy that includes Windows, Android, and MeeGo. This is not changing.

There is a solid value proposition for an open source OS that crosses different devices. End users want a consistent experience across all of their devices. MeeGo is a great solution to deliver that single experience.

MeeGo is not just a phone OS, it supports multiple devices. It is already shipping and we're seeing early momentum across multiple segments today, including automotive systems, netbooks, tablets, and set-top boxes.

We look forward to Mobile World Congress next week in Barcelona, where Intel will outline its mobile strategy and have announcements around our mobile platforms and strategy. [14]

From PCMAG:

On MeeGo, senior vice president Renee James said she knew most of the questions would be about Nokia, which had partnered with Intel on MeeGo at the conference a year ago but seemed to back off from it.

"Obviously, Intel is disappointed with Nokia's decision," she said, but Intel and other partners are still strongly committed to it. She stressed that MeeGo was an industry effort, not just an Intel and Nokia one, and said it had lots of industry support in lots of markets, not just phones. She pointed out that it is hosted by the Linux foundation, and said developer support was continuing. Patrick Remy of British carrier Orange said the industry needed "a really open ecosystem," and that hasn't changed and that Orange and other carriers are still quite committed to it.

James said Intel's strategy was "port of choice," meaning that all operating environments run on Intel's platforms, including Android, Meego, Windows, Chrome, Wind River and various versions of Linux.

Intel senior VP Anand Chandrasekher stated low standby performance and high performance on active power means better battery life. He said Intel's big push is to give its chips the same stand-by time as everyone else, but better battery life. He said it was important to have superior performance for productivity, gaming, video and imaging, and noted the company's announced acquisition of imaging maker Silicon Hive today.

Results:

What is the competition? Let's first look at the smart phone industry. Table one describes the key Smart phone platforms as of 2009. In 2010, Nokia partnered with Intel. Nokia planned to abandon its Symbian platform for the Meego platform.

Table 1 Key smartphone platforms

Operating System	Sponsor	Founded	First Shipped	Application Store	Type	Device Customers
Symbian	Symbian Ltd.	1998	1999 †		Proprietary licensed	Nokia, Sony Ericsson, Samsung
Symbian	Symbian Foundation; Nokia	2009			Open source	Nokia
Windows CE, Windows Mobile, Windows Phone 7	Microsoft Corporation		2002 †	Windows Marketplace for Mobile	Proprietary licensed	HTC, Samsung, Toshiba, HP, ?
Palm OS	Palm, Inc. later Palm Source	1992	1998 †		Proprietary licensed	Palm, Handspring, Samsung, Kyocera
WebOS	Palm, Inc.		2009	App Catalog	Proprietary	Palm
BlackBerry	Research in Motion (RIM)	1995	2002	BlackBerry App World	Proprietary	RIM
iOS	Apple Inc.		2007	iPhone App Store	Proprietary	Apple
Linux Mobile	LiMo Foundation	2006			Open source	
Android	Open Handset Alliance; Google	2007	2008	Android Market	Open source	HTC, Motorola, Sony Ericsson

† Before the first smartphone, earlier versions of the OS were used for PDAs

[15] from Structuring the Smartphone Industry: Is the Mobile Internet OS Platform the Key?

Table 2 below describes the market share as of 2009, which Nokia's Symbian platform being the largest world market share.

Platform	2006	2007	2008	2009
Symbian	67.0%	63.5%	52.4%	47.2%
BlackBerry	7.0%	9.6%	16.6%	20.8%
iOS	–	2.7%	8.2%	15.1%
Windows Mobile 7	14.0%	12.2%	11.8%	8.8%
Android	–	–	0.5%	4.7%
Linux †	6.0%	9.6%	7.6%	n.r
Palm OS/webOS	5.0%	1.4%	1.8%	0.7%
Other	1.0%	1.0%	1.1%	2.7%
Total	**100%**	**100%**	**100%**	**100%**
Annual total	64.1M	122.3M	139.3M	166.3M
Smartphones of all handsets	6.3%	10.7%	11.7%	14.7%

† Includes LiMo and firm-specific Linux efforts
Sources: Adapted from West and Mace (2010), Canalys (2010)

Table 2 Global smartphone market share, 2006–2009 [15]

ANALYSIS OF THE EMERGING ANDRIOD and IPAD TABLET MARKET

The Android mobile platform has picked up steam. Apple had been growing its market share rapidly over the last 2 years, but until recently, had been offered only at AT&T in the U.S. The Android base platforms had been offered at all major U.S. carriers. Based on data from its own ad network, Apple said Android's market share grew 8.6 points between October and January, far faster than any other system, including Apple's iPhone system, which grew 1.7 points [16].

According to market analysis firm Strategy Analytics, the number of Android-powered tablets sold in Q4 surged dramatically. In Q3 2010, Android devices held just 2.3 percent of the market compared to the iPad's approximate 95 percent. In Q4, Android's market share increased tenfold; Google's OS accounted for 22 percent of global tablet shipments while the iPad's market share fell to 75 percent.

The iPad is scarcely in danger of being swept away; Apple sold 14.8 million of them in 2010 and has launched the iPad 2 this month. If the iPad 2.0 is as powerful as predicted, it'll doubtless sweep at least part of the market back towards Apple's goal posts—at least initially. Strategy Analytics director Neil Mawston expects iPad market share will continue to trend downward throughout 2011 as Android tablets launch and pare away at the iPad's formerly unique features [17].

Porter Model for Intel's Meego Platform

We will look at it the Meego as the platform in the competitive rivalry for mobile internet devices.

Supplier Power: Weak – It is designed for multiple microprocessors, which includes both Intel and ARM.

New Entrants: Weak to Medium – The major players are Microsoft, Google, Intel and Apple. As far as the near term, these seem to be the platform vendors.

Substitution: Medium – There are other options, such as thinner laptop, larger PDA, etc.

Buyer Power: Strong – The buyer has multiple choices with Apple and Android. The Android platform has multiple manufacturers creating products using that platform.

The Delta Framework for Intel's Meego Platform

The Total Customer Solution: Intel is building the whole eco system with the Meego platform. It had brought on Nokia to manufacture the first Meego platform phones, but may have to supply the first initial mobile platforms. It needs to attract a major manufacturer as a partner or be like Apple, and manufacture the mobile devices themselves.

Best Product: Intel aims to optimize the Meego platform with its mobile platform microprocessors, a specially designed multi-core Atom processor [18]. It will need those to go in a device that will perform well, consume a little power as possible and be very affordable to succeed.

System Lock-in: Meego is far from that objective. It will take years before it will be accepted at that level, if at all [19].

Meego and the Resourced based view of a firm Framework

Unique Competencies: Meego needs to take advantage of software and hardware that no one else offers. Intel excels in this area. It has the manufacturing leadership and design knowledge to create a high performing, low power device for the Meego platform (and others). The question is will they be able to do it and produce the gross margins that they have enjoyed in the past. Their products will need to be in one of the major platforms for that to happen.

Sustainability: For a competitive advantage to be sustainable, its resources must be valuable, scarce, and difficult to imitate or substitute [5]. Meego has not differentiated itself yet. The free support from Intel helps differentiate it, but that may not be enough.

Appropriability: Meego has Intel backing it. Intel has the manufacturing and design talent to produce a high performing, low power and low cost Meego platform. The question is will they be in for the long run to see if this will happen.

Opportunism and Timing: Can Meego establish a superior resource position? The cost incurred in acquiring the resources must be lower than the value created by them. The Meego platform must add value to the mobile appliance makers for them to use. It will need a broader acceptance for those companies to see a return on their investments. Even with Intel's backing, if Intel does not see a rate of return on its investment, it will stop funding the platform.

Conclusion:

With Nokia's shift to Microsoft and Windows 7, Intel faces huge challenges in the Mobile internet appliance market. With the advantages that Apple has, the emergence of the Android OS from Google, and now with a Microsoft Windows 7 smart phone, linked with Nokia, Intel is at a huge disadvantage trying to get the Meego platform adopted. The competitive advantages that Intel has enjoyed with their PC and Server Microprocessors, does not exist.

The Porter Five Forces Framework shows that Meego is not competitive. The Delta Framework has Intel trying to create complete solution, with the hopes of making Meego the best product, but it will take a lot more effort and partnerships for this to make Meego competitive. Lastly, using the Resource View of a Firm, Meego is still uncompetitive, but has the best opportunity to be competitive in the future, if the situation changes. It will take Intel and needed future partners to be successful.

The big unknown is the Meego platform is designed to go into any device that can run Linux, so there may be devices where Meego can shine, but have not been invented or made public yet. At the moment, in the smart phone and tablet markets, Meego is not competitive.

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