

INTEL, INC. – STRATEGIC ANALYSIS AND RECOMMENDATIONS

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Intel, Inc. – Strategic Analysis and Recommendations

Executive Summary

In business, it is said, strategies fail predominantly because of them not being implemented well, rather than because of their inherent flaws. Owing to such high rate of failure in the implementation stages in most cases of strategic failure that the world has seen, accomplishing successful implementation of strategy continues to be a key challenge even in the today's business realm globally. Quite a few organizations generally tend to have a fundamental detachment between strategy formulation and its implementation into some form of useful action. Out of the numerous reasons that industry leaders and strategic pioneers state, one important stumbling block is companies failing to pay attention to the external environment and the imminent threats. This is exactly what happened in the case of Intel, Inc., the leader in the microprocessor manufacturing industry. However, the organization failed to recognize an important development - the personal computer (PC) market that was shrinking, thus failing dismally in foreseeing the future opportunities and gear itself up and adapt to the changing market requirements. How can Intel turnaround the situation? The current report is a pursuit to address this question.

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Introduction

Intel Corp. at one point of time was the leader in the area of microprocessors, possibly Intel and AMD were the only two companies that were worth naming in that area. Intel led always, came up with newer products and AMD kept playing catching up. Intel was the market leader. It was a great successful company. Intel was a market leader in the personal computer environment (The Economist, 2019). There was an important development that Intel seems to have missed out, which is precisely, the personal computer (PC) market that was dwindling, and the only hold that the company seemingly had was the server market. It was still a leader in the Server segment. So, the moot question is if Intel can rest on its laurels? This paper is a strategic analysis of Intel, identifying where Intel went wrong, what options does it have, and which option is the best.

Section A – Strategic Analysis

Intel in the late 1990s, was a very choosy organization, to the extent that they had an Intel Calendar, they defined weeks in the calendar and every employee carried the calendar in their identity cards, they were actually paranoid about timelines and what they commit to the customers and markets. So much so its founder and one of its CEOs actually wrote a book that titled “Only the Paranoid Survive (Grove, 2002).” This was the reflection of the company, its culture and its paranoia to survive, grow and keep up the leadership position in the market. Somewhere, as the 21st century dawned and progressed, technology changed. Things were spawning out slowly but steadily, Yahoo refused to buy Google and Facebook, feature phones were being replaced with smartphones, cloud computing was becoming a standard. If in the timeline it is to be written, Yahoo refused to buy Google and Facebook, smartphones are a reality today and cloud computing is a standard nobody wants to miss (Akolawala, 2016). Somewhere, the market gets the feeling that Intel is also going the Nokia way – in its inability

to foresee future opportunities and prepare itself to adapt to the coming change and create products that meet the new reality. Many strategists may disagree; however, this is the emphatic truth.

Porter's five Forces Analysis of Intel

Porter's Five Forces Analysis was first published in Harvard Business Review in 1979 authored by Prof Michael Porter. This was said to be one of the ten most influential papers since the inception of the magazine. This model still very much in use today speaks of the competitive landscape by analyzing the important dimensions of

- a. Bargaining power of suppliers.
- b. The bargaining power of buyers.
- c. Threat of new entrants.
- d. Threat of substitutes.
- e. Competition among the existing players (Porter, 1979).

Bargaining power of Suppliers

As far Intel is concerned one of the important components of make microprocessors is Silicon. What is more important in the chip industry is its ability to manufacture and in case of Intel – the ability to put the number of transistors in a given space. There was an announcement that was made of a - nanometer chip. It was to have come several years back. Suppliers had no role in Intel stumbling on this promise.

Bargaining power of Buyers

This is an especially important force in the market. Intel took a big hit when Apple, announced that it would be making its own chips. This was a fifteen-year-old relationship between Apple and Intel that Apple broke (Leswing, 2020). The reasons were fairly simple, Apple was making

its own phone and tablet processors which improved the battery life. Apple's manufacturing partners were more advanced than Intel.

Threat of new Entrants

Intel never realized when companies like Samsung, TSMC, NVIDIA came from behind catching up on Intel and playing the game better. They were able to see the future of microprocessors being the smartphone and tablet usage. They were prepared to manufacture in smaller batches for different companies (Richter, 2021). AMD was always there as competition. But will more players come? This can never be answered with definitive clarity in the technology industry, the established players need always be aware of this possibility and be prepared for it.

Threat of Substitutes

Intel is not challenged here severely, every smart device needs a microprocessor and that is an opportunity for Intel, but the microprocessors are different and need to have different capacities and capabilities. Intel is not prepared for this. It is particularly good at designing and making PC and Server chips and no more. Internet of Things (IoT) needs different chips, Intel seems to be playing catching up here (Intel Corporation, 2021). IoT is a particularly large opportunity for chip makers. Comparing this to what it was may be 15 years back, when competition would play catching up with Intel, it is very unfortunate that the tables have been turned on Intel. Was Intel resting on its laurels? Or was it that Intel was too slow in foreseeing the future unfold and started becoming irrelevant in the current competitive landscape?

Competition among existing players

The competition is very intense in the microprocessor market. The market leader Intel has fallen behind severely. The competition is so severe that every player in this market keeps waiting and designing for the next generation of smartphones. 5G technology in mobile

communication has already arrived and several countries are upgrading their infrastructure to this newer technology. Is Intel prepared to take a piece of this pie? The answer seems to be a resounding and a loud negative (Waters, 2020).

While Andy Grove said the paranoid survive, Intel was not paranoid enough. Apple dropped it for an inhouse technology. Qualcomm took over the smartphone market. Nvidia took over the place of being the most valuable American chip maker (Waters, 2020).

VRIO Framework

Applying the VRIO framework to Intel, it is apparent that the current value proposition is limited. The skills that Intel has in terms of design and manufacturing is not really rare. The real rarity in microprocessors comes in when they are able to design and manufacture for the future or future-ready products. This is not the case with Intel. Is Intel Inimitable? The answer is a no, there are already competing chip makers in the market. Some of them even seem to have overtaken the company. Intel is no doubt well organized, but it is not able to create products that are in demand (Gerald et al., 2019).

TSMC is supposed to be a foundry that makes chips. It has overtaken Intel in terms of market cap some time back. AMD never really competed with Intel in the yesteryears. They never mastered the art of making x86 chips. But they have now caught up and have bagged some big customers like Google. Less than a decade back, Intel was worth the sum of AMD, Nvidia and TSMC. But now these three competitors are worth more than double that of Intel (Waters, 2020). What could have gone wrong? Intel was one point of time the crown jewel of the microprocessor industry. There was no one who could come anywhere close to it. Today there are several companies that are giving Intel a run for its money and have mastered the art and technology of designing and manufacturing chips. Intel's time seems to be running out and running out fast. If Intel cannot create a coup in the near future, within the end of 2021, its days

may be numbered. There are too many technologies that are competing for the share of the microprocessor industry. There is Artificial Intelligence, Graphics Acceleration, Block-chain computing, IoT, Machine learning, and so on, each of these technologies have leap frogged into limelight and are looking at different challenges to meet. Intel seems to be nowhere close to meeting these challenges. Intel is a company that had its days in sunshine.

Unfortunately, somewhere it seems to have lost steam and seems to be relying on older methods to keep sustaining itself. It did not have the ability to foresee the future and tap the much important IoT and Smartphone markets. Other chip makers who were not in the industry, seem to have quietly slipped into the competitive landscape and have overtaken Intel. The biggest blow to Intel seems to have come from its longtime partner – Apple abandoning the relationship with it and go on its own to manufacture chips. Intel had the habit of being able to forecast the kind of technology and chips it comes with (Poletti, 2020). However, in the case of the 7-nanometer promise it seems to have fallen flat. Why were the strategy team of Intel not able to forecast the smartphone market? Were they too Nokia-ish in their feeling? Has the competition gone too ahead for Intel to catch up? Will Intel ever be able to get back into the race? What options face Intel in reality today? The next section will look at what Intel can really do now to catch up.

Section B: Strategic Options

In this section there are two options that are presented and evaluated that are available for Intel now, factoring for the larger competitive landscape, its inability to keep up with competition and even come out with products that are in demand now and in future.

Option – 1

With the fact that Intel does not have a future ready product, the best option, as incredulous as it may sound, is to offer a sell off to an American Chip maker – Nvidia. The sell off offer could have different forms of dilution as discussed below.

This is very incredulous option that is available for Intel. If it is not able to keep up with the pace of being the best or even the second best, it is better to hive the company off to a competitor with better technology. If not a complete sell out they can collaborate with Nvidia in becoming their outsourced research or design or manufacturing partner. This would be in line with the Blue Ocean Strategy (Kim and Mauborgne, 2016). The current chip market is being intensely competitive, and the competition is aiming to chew off the market share from others, which is going to be a zero-sum game (Buchanan, 2016). However, there are American National security issues, as there are too many Intel processors behind the American Security scene, and this may warrant an approval from the US government in view of the security related issues (Warren, 2018). If the buyer happens to be an American like Nvidia, this problem will not arise in the first place. If there is a sell-out or an equivalent of it, the owners of Intel can walk away with sufficient cash to re-invest into other technology areas. Intel as an organization need not be closed, it can stop its microprocessor design and manufacturing and continue to be an advisory to the technology companies. Intel being a great technology organization it can take this position easily. This is similar to the move that IBM made a few years back. IBM exited its manufacturing space to exit out of the laptop and PC markets (Farquhar, 2017). It has restricted itself to the consulting space and server space. These options need to be explored in depth. Thus, the sell-off option could be explored in:

a. Total sale

- b. Collaborate with a better competitor and offer its services to be a contract designer or manufacturer, or
- c. Exit manufacturing and design and become a consultant like IBM.

These are all options under the sale or exit. Any of these options, well exercised would be a winning strategy for IBM.

Option – 2

This option is a run of the mill option of trying to play catch-up and even try and be ahead. One of the things that has hurt Intel in the last decade or so is failure on its part to create winning products or keep up with technology. For instance, it has not been able to penetrate the smart phone segment effectively. There are several areas of newer technologies like artificial intelligence, machine learning, block chain computing, digital currencies which require dedicated processors and chips. Intel is not in any of these categories. The only area that Intel seems to have captured is the cloud computing space, because of its ability to produce processors for the servers. Intel is the predominant chip maker in this segment (Maru, 2016). Intel would do well to consolidate this position (Trefis Team contributor, 2019). This consolidation should happen while, it puts energies into foraying into other area. The other strategically important areas must be driven by a group of highly empowered professionals reporting directly to the Board of Directors of the company. This is not an area to make acquisitions. Several acquisitions in the past, historically, have not paid off really well for Intel. However, one major acquisition in the recent past – the acquisition of convrg.io seems to be paying off, especially in the strategic area of machine learning. Intel seems to be in a hurry to acquire companies in the area of machine learning and artificial intelligence (Lunden, 2020). While the growth path does not necessarily happen via the means of acquisition, there must be an immense focus on developing technologies internally. This is something that Intel has

mastered and only needs to re-learn the same skill and implement it effectively. Moore's law which was more of an industry standard, seems to have lost on Intel itself. Intel must put itself back on the path of being in line with Moore's law (Xiu, 2019). The empowered strategy team must focus on two specific areas which are firstly, catch-up on the areas that Intel lost out on – like the artificial intelligence, machine learning, block-chain computing; secondly on being able to predict the way the future effectively and accurately would shape and design those products that would be relevant to the future. This is in line with the 2020 Intel Architecture Day announcements it made (Martin, 2020). It is not a static strategy; this preparedness should be constant and moving. It is a dynamic strategy. This is in alignment with the thoughts of Blue Ocean Strategy theory (W Chan Kim and Renée Mauborgne, 2016).

These strategies will keep the competitiveness of Intel as an organization live and responsive to the marketplace developments. However, there would be a lead time between the implementation of this strategy and Intel coming back into the reckoning, that could cost immense amount of resources utilization.

For the purpose of this report, it is highly recommended that Intel adopt Option 1 listed above. It is in the interest of the organization as well as the security interests of several nations that are dependent on Intel technologies for protecting themselves that they sell-off to another American chipmaker with conditions that they protect some of the promises that Intel has made in the past. This will be a winning situation for the acquirer like Nvidia and also Intel. The interests of the shareholders in both the organizations will be protected. Intel shareholders also will be rewarded with rich dividends for being the owners of the company.

Section C – Strategy Implementation

While there are several strategy formation theories, there are very few like the seminal work Execution, that emphasized on implementation of strategies for effective performance

improvement in an organization (Belludi, 2020). This section deals with implementation plan for Option 1 in the previous section. Key performance Indicators also have been defined for measuring progress against plan.

The option 1 chosen for implementation is the total sell-off of the company. The company needs to be sold to another American Company in view of the national security interests of the country. The national security interests cannot be compromised at any point.

The first step in this option is to first create a group that will in total confidence bring in a buy in and acceptance from the major shareholders after an in-principal approval by the Board and this decision needs to be held in total confidence. This can be ratified at a later point of time in a General Body meeting of the shareholders. Confidentiality at this stage is of utmost importance because any leakage of the sell-out plan would lead to erosion in the share value in the bourses. Also, there is a strong possibility of hostile take-over attempts that may be successful. Hostile take-overs also could possibly compromise on national security issues (ELEFTHERIADOU, 2018). The consent will be brought in by a highly empowered group of top managers of the company. This needs to be done within the first 45 days. There will be challenges of acceptance and resistance from some shareholders. It is to be expected and duly handled by convincing them of the larger plan and the fact that if there is a further delay there could be a devaluation of the company share which will lead to the erosion of the company valuation (Koseleglu and Awaad Alemani, 2020).

The next important step is to start establishing a dialogue with Nvidia for getting their consent to the acquisition of Intel. The Board of Nvidia needs to be convinced of the concept and value in the acquisition. This can be done by using government agencies, lobbying agents and also deputing some of the leadership team members to directly engage with Nvidia. Again this step needs to be done in total confidentiality to ensure the news does not leak into the market which

could lead to devaluation or hostile take over attempts as discussed earlier. This step needs to be achieved in 90 days from the initial decision. There could be challenges that could come in form of resistance from the buyer. The only solution to this is to persist and highlight the importance of national security and the advantage Nvidia will have in the marketplace after the acquisition happens.

The third and the most important step in the entire process is to chalk out a merger plan post the acquisition. There will be several cultural challenges that will be involved in the merger. There could also be positional redundancies. Nvidia will be faced with evaluating the talent within their organization and Intel and taking a decision on who to retain, re-position or let go off. These need to be taken jointly with the outgoing management of Intel Corporation. The involvement of Intel managers is an important part of this exercise because they will be in a position to evaluate the talent within Intel and give objective assessment of their talent. This process needs to happen within 150 days of the first decision made. The challenge in this step is that the managers of both the organizations will try and play their talent up. However there needs to be Human Resources team who will cool down the tempers and take an objective view in the interest of the merged entity.

The fourth step in the process will be to enter into formal sale agreement that is binding on both organizations and the valuations are firmed up. This is the stage when the press needs to be informed. The decision needs to be a winning decision and not a losing proposition for both the organizations. There may be litigations from third party at this juncture in the interest of the claim of national interest protection. This needs to be dealt logically by a team of advocates from both the organizations (Tzoumis and Shibilski, 2019). This step ideally should not take more than 180 days.

The fifth and the final step will be to exchange value – money from Nvidia to Intel, assets and people from Intel to Nvidia. This must be completed as soon as the step four above is concluded logically. The culmination of the fifth and final step in the process would create a world-class microprocessor company that no competition can withstand, definitely in the foreseeable future. This would bring the best of practices, methods, and processes from two highly respected organizations into one organization and make it almost un-beatable (Moskovicz, 2018). This may attract some legal action against monopoly and competition (Abedi, 2020). This is something that could handled by the legal team of the company.

Conclusion

While the option of selling of Intel to a competitor may sound as incredulous as it sounds, it is not an impractical or an impossible solution. Intel seems to be on the wane and this needs to be arrested. The competitor who acquires Intel must be in a position to make use of the knowledge and processes that Intel brings to the table. Intel it is definitely to be acknowledged has mastered some of the processes and procedures. This is of immense value to the competition. It is to be noted that while companies like AMD were not able to replicate initial success of Intel, they have been able to catch-up and move ahead of Intel because of the insights and resourcefulness of being able to peer into the future. Possibly this is the only place where Intel has lost out to the competition. It is by no means complacence, it is just that the company misplaced its priorities but by the way of take-over by another American corporation, it must continue to contribute to American greatness and the overall well-being of the humanity again.

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