



TCA 1: MOBILEYE

By: Team 7

Danielle Sciuto, Diego Negron, Samiksha Sarda, Tre Totten

Team leader name for this project: Diego Negron

Instructor's name: Lori Anderson

Course section CRN, day & meeting time: MGT 4394, TR 8:00-9:15 AM



Printed copy submission: Samiksha Sarda

Soft copy submission: Diego Negron

Executive Summary



Strategic Issue:

How can Mobileye maintain and sharpen its competitive edge while strategically managing partnerships with counterparties driven by different goals in the rapidly growing market of autonomous cars?



Cause:

1. Increasing bargaining power of large OEM customers, fueled by their pursuit for higher margins
2. Competitive Rivalry, as competitors offer less product features for cheaper to capture greater market share



Alternatives:

Segment market by offering tiers of products/bundles at varying price points which will result in maintaining premium pricing for high-end vehicles as well as lower prices for mass-market.

We have found that the strategic issue of your company pertains to trying to develop a competitive advantage in the industry. Specifically, how can Mobileye maintain and sharpen its competitive advantage edge while strategically managing partnerships with counterparties driven by different goals in the rapidly growing market of autonomous cars? Google is an emerging competitor with also the potential to be a partnership, it is necessary to capitalize on this now. There will be implications if no action is taken. Mobileye will fall behind in competitiveness compared to Google. This will be detrimental to your company in the long run. Therefore, it is best to start managing partnerships with counterparties in the industry.

We ran into the aforementioned strategic issue as a result, in part, of the increasing bargaining power that the large OEM customers hold, as they attempt to rein in implementation and usage costs while protecting themselves from margin compression. This was principally fueled by the fact that Mobileye's products have been defined by an average \$45 price tag, while many OEM suppliers see cost-plus basis pricing as being fairer, especially because OEMs are looking to include the simplest ADAS systems possible when producing low-end vehicles. This strategic issue is also catalyzed by the Company's competitors offering less features for a cheaper price than Mobileye's products in pursuit of greater market share, primarily because the technological competition was set high by the Company's product development and one way to curtail this is to offer lower costs to Tier 1 suppliers.

Alternative: Through cost-optimized and basic solutions, your company can capture market share in lower segments while proactively protecting premium pricing and margins within high-end in the less price-sensitive segments. It is also possible to extract value at different stages and make upselling easier as capabilities advance by utilizing proprietary technologies across many levels. In high-volume and cost-sensitive mass market this can be a well-balanced strategy creating fresh growth opportunities while maintaining pricing flexibility and encouraging ongoing innovation. It also strengthens technological leadership in premium categories.

Company Financials

Income Statement Analysis									Balance Sheet Analysis				
					Common-Sized							Common-Sized	
	2011	2012	2013	Jan-Sep 2014	2011	2012	2013	Jan-Sep 2014		2013	Sep 2014	2013	Sep 2014
Statement of Operations													
Revenues	\$19,168	\$40,285	\$81,245	\$103,979	100.0%	100.0%	100.0%	100.0%	Current Assets				
% Growth	101.3%	101.7%	101.7%	101.6%					Cash and Cash Equivalents	\$72,560	\$298,209	43.1%	69.7%
Cost of Revenues	6,863	12,219	21,130	26,392	35.8%	30.3%	26.0%	25.4%	Short-term deposits & restricted cash	51,802	51,029	30.8%	11.9%
Gross Profit	\$12,305	\$28,066	\$60,115	\$77,587	64.2%	69.7%	74.0%	74.6%	Trade receivables, net	12,490	19,770	7.4%	4.6%
Gross Margin	64.2%	69.7%	74.0%	74.6%					Inventories	11,354	18,289	6.7%	4.3%
Operating Costs/Expenses													
Research and Development	\$15,377	\$15,866	\$22,309	\$26,925	80.2%	39.4%	27.5%	25.9%	Other current assets	7,025	22,783	4.2%	5.3%
Sales and Marketing	6,134	6,434	12,331	11,910	32.0%	16.0%	15.2%	11.5%	Total current assets	155,231	410,080	92.3%	95.9%
General and Administrative	2,567	7,418	10,277	59,685	13.4%	18.4%	12.6%	57.4%	Long-term assets: PP&E	5,697	8,674	3.4%	2.0%
Operating Profit (Loss)	(11,773)	(1,652)	15,198	(20,933)	61.4%	4.1%	18.7%	20.1%	Long-term assets: Other	7,300	8,897	4.3%	2.1%
% Growth	86.0%	1020.0%	-107.7%						Total Assets	\$168,228	\$427,651	100.0%	100.0%
Interest Income	1,543	1,531	1,059	1,097	8.0%	3.8%	1.3%	1.1%	Current Liabilities	\$15,875	\$30,717	9.4%	7.2%
Financial Income, net	(2,709)	402	1,389	(2,973)	14.1%	1.0%	1.7%	2.9%	Long-term Liabilities	\$25,590	\$45,198	15.2%	10.6%
Profit (Loss) Before Taxes	(12,539)	281	17,646	(22,809)	67.5%	0.7%	21.7%	21.9%	Shareholder's Equity				
Benefit (Taxes) on Income	(\$447)	(\$334)	\$2,274	\$9,674	2.3%	0.8%	2.8%	9.3%	Paid-in capital	\$243,525	\$515,823	144.8%	120.6%
GAAP Net Income (Loss)	(\$13,386)	(\$53)	\$19,920	(\$32,483)	69.8%	0.1%	24.5%	31.2%	Accumulated deficit	(100,887)	(133,370)	-60.0%	-31.2%
% Growth	39.6%	1784.9%	-101.2%						Total Liabilities & Shareholder Equity	\$168,228	\$427,651	100.0%	100.0%
Non-GAAP Income (Loss)	\$1,802	\$33,051	\$33,437		4.5%	40.7%	32.2%						
% Growth		1794.2%	1.2%										

One of the principal indicators that relay to us how valuable Mobileye's market has become is the very attractive growth rates that the Company has realized for the past few years, having doubled in 2012 and again in 2013, with a still considerable 28.0% being experienced in the 2014 period. This means that an inability to solve the strategic issue this company is currently experiencing will severely impact its top line, with that in turn possibly leading to a devastating loss in share price, something that may diminish the possibility of further successful equity raising rounds as in 2013 and when it IPO'd. Furthermore, this may threaten the attractiveness of the Company's gross margin, with it having grown to a very positive 74.6% by the 2014 period from 64.2% in 2011. By experiencing its strategic issue, we will possibly be affected by margin compression, as competitors begin to lower their already cheap price points, but the effect would be diminished by the multi-price point approach as a potential solution to the issue, given that we will not experience price decreases on all types of units sold.

Another observation that isolates the presence of the strategic issue is the fact that the Company is well-capitalized, with current liabilities only holding a 7.2% weight out of 100% in the 2014 balance sheet and long-term liabilities only holding 10.6%. In other words, the Company is not facing an insurmountable wall of debt, with these percentages being substantially below what you would generally find in other companies. Because this means that Mobileye will not face a credit event, and it will keep paying off its already small amount of debt, we can understand the issue that approaches the Company as one that is clearly strategic.

Similarly, it is important to observe the decreasing presence that Research & Development costs hold in the income statement, with it dropping from 80.2% on a common-sized basis in 2011 to 25.9% in 2014. This translates into the Company being able to efficiently spread its costs around its expense structure. In turn, this means that it can form more accurate assessments of what may happen in the future, because of the increased stability. Again, this highlights how the issue that this Company is facing is of a strategic nature, given it is financially healthy and non-GAAP income has remained positive.

PESTEL Analysis



Political

Include elements such as tax policies, changes in trade restrictions and tariffs, and the stability of governments.



Economical

Include elements such as interest rates, gross domestic product, general growth or decline of the economy.



Social

Include trends in demographics such as age, and ethnic mix, as well as cultural trends.



Technological

Include changes in the rate of new product development, increases in automation, and advancements in service industry delivery.



Environmental

Include natural disasters, global warming, pollution, and weather patterns.



Legal

Include laws involving issues such as employment, health and safety, discrimination, and antitrust.

The PESTEL analysis is an evaluation of six forces in an industry's macro-environment: political, economic, socio-cultural, technological, environmental, and legal. After reviewing your company, we have concluded that the most important PESTEL elements are **Political**, **Social**, and **Technological** because these elements will affect the future of self driving cars the most.

For the **political** element, governments are recognizing the importance of Advanced Driver Assistance System (ADAS) for vehicle safety, such as mandating technologies like collision warning, autonomous braking and vehicle safety ratings like New Car Assessment Program (NCAP) making ADAS required for top ratings but full self-driving car regulations are still unclear on liability, testing, licensing. This regulatory uncertainty is an issue for the industry.

In the **social** element safety is the top reason consumers want ADAS technologies. Your company has focused on collision avoidance, ADAS aligned with this. In addition, consumer trust in self-driving is increasing rapidly. This is a positive element in which your company is leading in, and there is room for further improvement in the future.

In aspects of **technology**, your company keeps pushing innovation to match pace enabling technologies like computer vision, Machine Learning (ML), mapping advancing rapidly. Allowing autonomous driving capabilities to progress however, many competitors with different sensor such as lidar, radar are competing in the market.

For Mobileye's expansion in autonomous driving technology, the economic, environmental, and legal considerations present both potential (cost savings, sustainability benefits, regulatory push for safety) and concerns (uncertainty about liability, compliance costs). All things considered, the PESTEL study emphasizes how Mobileye must aggressively influence the regulatory environment, remove any obstacles, and take advantage of the growing market.

Porter Five Forces

Competitive Rivalry

Bargaining Power of Suppliers

Threat of New Entrants

Bargaining Power of Customers

Threat of Substitutes

The purpose of Five Forces Analysis is to identify how much profit potential exists in an industry. We have identified the 3 most important factors: **competitive rivalry**, **bargaining power of suppliers**, and **threat of new entrants**.

Rivalry Among Competitors: Mobileye is the leader in vision-based ADAS systems, But faces competition from Tier 1 suppliers with alternative radar/lidar systems, Moderate rivalry as Mobileye must continuously innovate to sustain differentiation and profits, Applying strategy of constant tech innovation to stay ahead with superior products

Threat of Suppliers: Mobileye develops own core software and chips, Only relies on suppliers for camera hardware which has many sources, High ability to capture profits by owning core IP -Vertically integrated software/chip capabilities a key strength

Potential of New Entrants: High barriers to new competitors like long testing cycles, massive data requirements, These barriers give Mobileye high ability to maintain profits, Patents and proprietary datasets make it very difficult for new entrants to replicate.

Although Mobileye's unique technology and high switching costs provide it a strong market position, a deliberate approach to pricing and product differentiation is required given the growing clout of large OEM clients and the possibility of new competitors. In general, Mobileye's competitive landscape appears to be positive according to Porter's Five Forces analysis, provided it can sustain its technological dominance and properly handle its client relationships.

VRIO Analysis

SINGLE CAMERA SYSTEM



Valuable



Rare



Easy to imitate



Organized to capture value



Sustained Competitive Advantage

FUSION SYSTEM



Valuable



Rare



Easy to imitate



Organized to capture value



Competitive Parity

Single-Camera System

Mobileye's single-camera system is very valuable to the company. Its value and rarity go somewhat hand-in-hand. Most driver assistance software was using two cameras, as they believed that they would be better for triangulation and depth. Mobileye decided that they wanted to try something different and bundle all of the technology into one system. This type of technology would be costly for other companies to try to copy, due to the research and development that would be needed for them to try to fit all of their current technology into a smaller system. The single-camera system creates great value for the company when it comes to costs and price. A compact system would save the motor companies a lot of money compared to using the dual camera systems. This sustainable competitive advantage can bring in more money and business opportunities for Mobileye. Like mentioned before, their system will save motor companies a significant amount of money. As companies begin to notice that they can save money by partnering with Mobileye, then Mobileye will begin to see a greater customer base and more business. Until companies want to take a risk and try the Mobileye method, then the popularity from car manufacturers will stay with Mobileye and their system. Other companies would risk not meeting the standards set by Mobileye and fall short.

Fusion Systems

To get ahead of the competition with the rise of automated driving, Mobileye began to put more emphasis on fusion systems. These systems are hybrids, connecting multiple technologies to create a wider range of capabilities. Putting more research and development into these fusion systems, Mobileye could capture a larger consumer market. This market would be those automated vehicles, like self-driving cars. Since this market is growing and revolutionizing the car industry, this could bring great value to Mobileye. The problem is that fusion systems are not a new idea. They have been around for a long time, and many producers have already used the idea before. The idea to move to a fusion system would not be revolutionary, but the quality of the system is what would bring value to the brand. This competitive parity is good for Mobileye, if they bring high quality to these systems.

Alternatives



Segment market by offering tiers of products/bundles at varying price points which will result in maintaining premium pricing for high-end vehicles as well as lower prices for mass-market.



By engaging in the acquisition of possible synergistic targets, Mobileye could attempt to develop its own self-driving car to compete with others which may have extensive engineering expertise



Shifting a good weight of the company's focus to developing a product from which the most safety can be derived compared to competitors would allow Mobileye to benefit from regulatory tailwinds

Altering Price Strategy

As we mentioned earlier, Altering the price strategy is our best recommendation for Mobileye's success. You can introduce a multi-tier pricing structure in the near future in order to divide the market into strategic segments. By providing tiers of products at various price points it will protect your premium pricing for luxury cars while bringing mass-market alternatives that are more economically viable. You seek to create new growth opportunities in the high-volume, price-conscious mass market while defending your technological superiority in premium markets by utilizing proprietary technologies across many tiers. By maintaining pricing flexibility and fostering continual innovation, this well-balanced approach positions your success in both premium and mass-market markets

Development of Self-Driving Car

Developing a self-driving car could be the next big step for your company. You will now be joining the automotive production market, and utilizing your own technology to create something of value for you. This can lead to more exclusivity of your products as you are going to want to maintain your competitive advantages. Increased exclusivity will also ensure that your cars would have technology not found in any other car. With your extensive knowledge of this technology, you know how to best implement and utilize certain technology across the whole vehicle. Your company would begin to compete with some of the key competitors in the market though, like Tesla and Google.

Increased Focus on Safety

Shifting a large portion of the company's focus towards the research and development of the most safe product that they can provide can give your company a competitive advantage over competitors. By developing a product that can stand by and claim is one of, if not the, safest product on the market, Mobileye can be on top of all of the government regulations and avoid any conflict with them. This can also make the production process smoother and more efficient, and could even increase brand reputation. One downside is that a majority of your focus would be on only one product out of all of the other products they offer.