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Mass market development strategies of software industries: Case study based research[☆]



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Summary The success in competitive mass market software development depends on the quality of software development and market segments targeted. Market segments are categorized by uncertainties contributed by “Newness” and “turbulences”, making the software success stochastic in nature. Selecting good market segments, delivering high quality software versions in the lowest time than competitors, result in increasing demand in markets and ultimately revenues. Enhanced customer base is beneficial for current product as well as for future products of industry in the form of increased reputation and increased involvement of customers in future development. The case study was conducted with 13 representatives drawing experiences of 14 mass market projects. Results indicate that software solutions are delivered to few investors or in highly competitive markets, as per the survey’s findings of the marketing departments. The software organizations are reluctant to deliver relatively complex solutions in new markets unless and until strongly convinced with the probable success. The method for selection of market segments belonging to new and existing markets for undertaking the software delivery is also proposed in this paper. The model will help software industry decide the market segments and high abstract level features that could increase probability of software success. Poor selection of markets or targeting markets of “improper” size affects the market share of the industry to a great extent.

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Introduction

The Software Industry had occupied a central position in satisfying the Information Technology (IT) needs of the organization. Increased demands of the valuable software in various domain industries have resulted in an increase

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of 4.8% in worldwide software revenue in 2013 as when compared to 2012 revenue (Gartner report available at <http://www.gartner.com/newsroom/id/2696317>). The software industries are a good source of high salary employments and enhance the economy of any country (http://www.bsa.org/country/public%20policy/~media/files/policy/security/general/sw_factsfigures.ashx). The software industry is a boom for any country. The ability of the software industry to deliver high quality software to its customers acts as the catalyst for large revenues and strong market share. Not only the ability to deliver high quality software, but also the high market share, attracts more investors. This trend finally converges into the country being known as a software market leader.

The demand of the software industry is not uniform in all the countries of the world and few countries may provide large markets while some may prove to be saturated ones. For example, the sales of packaged software in the BRIC (Brazil, Russia, India, and China) markets are likely to be \$22 billion dollars, showing an increase of 44% which is far more than the projected growth of 15% in the United States; Central, Eastern, and Western Europe; and Japan collectively between 2009 and 2012 (http://www.bsa.org/country/public%20policy/~media/files/policy/security/general/sw_factsfigures.ashx).

To capture high market share, a software industry must target those markets that have high demand for software solutions rather than trying fate in saturated market segments. Saturated market segments provide a high degree of risk because attracting the competitive software customers and new customers is a bit difficult. The difficulty can be overcome by release of innovative software features at fairly good competitive prices that make the transition to new software possible and affordable.

Once the software is released in market segments, it can be customized as per the needs of small, medium or large business firms. Once again the reputation and market share of the software industry provides the necessary magnetic attraction to the business firms as investors. The ability of software industry to target and satisfy the market(s) is prime parameter for increasing revenues and market shares. Market shares are always beneficial to any industry in terms of profit margin, declining purchase to sales ratio, lower marketing cost to sale, higher prices of products, unique competitive strategies, etc. (Harvard Business review article at <https://hbr.org/1975/01/market-share-a-key-to-profitability>).

Today, many software industries claim to be delivering software solutions to mass markets and it would not be strange if you find the solutions of the same firms delivered to small, medium and large business firms as well. The ultimate reason is to convince the investor, sell the software and gain profits. Failed software is an ugly gift to any software industry, which may turn out to be a loss in reputation (less investors/customers), loss in market share (losses), enhanced profit to competitors, complete shutdown of business and much more. Software industries must figure out the proper methods to target suitable markets to attract customers, enhance sales, build reputation, etc.

This process may continue with other market segments. Enhanced customer base will enhance revenues of the

Table 1 Interviewed company and representative informative data.

S. no.	Company name	Number of representatives	Number of projects
1.	A	2	3
2.	B	5	5
3.	C	6	6

industry and may also provide a good market for future products of the industry due to enhanced reputation.

This paper aims to explore the mass market development strategies of well known large companies at a higher level of abstractions, i.e. without going through the details of the development process and keeping the work restricted to key decision makings in delivering to mass markets.

Interviewed companies

The researchers interviewed three multinational software industries that had experience in delivering numerous software solutions. Each solution mostly has a target audience of millions and is often aimed at mass markets. However, the industry had provided the customized solutions to few business firms and also developed solutions especially for few clients. The industries will be denoted by A, B and C, because as per the condition of the interview, the researchers agreed that neither the company name nor the employee identity will be disclosed. Each company is represented by a few representatives at the level of project managers and software engineers. The representatives have the experience with the development of numerous projects of varying complexities. The details are given in [Table 1](#).

The representatives of the software industries were asked about the manner their industries decide to deliver the software solution in mass markets. The aim is to know the different strategies employed by these industries in targeting the market segments. The reason for employing the software engineer is to get more details about the process (in case project manager forgets to bring out something meaningful) and to analyse the responses made by project managers in order to strike off wrong interpretation due to conflicting terminology and falsifying information if any to hide any failures/weaknesses by project managers.

Results

The industry representatives told us the method employed from the phase of conceiving the idea up to the phase of delivery of the release. All the companies employed AGILE Scrum methodology for releasing the version; however, the activities related to targeting the suitable mass markets vary considerably only in words and not in deeds. The actual method was same across all the companies. The prominent strategies employed by these companies are as follows:

- **Fixed investors:** The companies normally have fixed investors, those who had been buying software for long and those who brought them recently. The companies are

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