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Timing of Market Entry for New Products: An Exploratory Case Study of the Success Factors for Pioneering and Following

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ABSTRACT

Launching a new product at the optimal time is imperative for the successful entry and penetration in the competitive market. Expectations of customers, responses of competitors, challenges of emerging start-ups, shortening of product life cycles, and global alliance of corporations are some of the evolving factors that are relevant to the timing decisions for a new product. This paper re-examines the timing-related strategic issues, reports an exploratory case study of the ninety-two pioneering or following market entries, and discusses the managerial implications for a firm's market-entry decisions for a new product or service.

INTRODUCTION

From the strategic perspective, the market-entry timing for a new product has been investigated within a comprehensive decision-making framework considering the resource availability to support a firm's sustainable growth and platform building (Zhu and Furr, 2016). From the analytic perspective, timing decisions have been related to the potential advantages of pioneering such as determining the rule of the game in the market, selecting the best positioning, securing the efficient value-chain partners, capitalizing on the learning curve effects for cost advantages, and building the reputation of being innovativeness and brand loyalty among the customers (Kalyanaram, 2012). The analytic approach to market-entry time also evaluates the potential advantages of following such as capitalizing on the mistakes of the pioneers in technology, product, positioning, channel selection, promotion or pricing, offering a superior level of customer service, employing new technology at a lower cost, developing a new way to access the market with an innovative distribution strategy and aggressively taking advantage of the incumbent's tendency to average pricing across all segments, and others. Some of these potential advantages can be attained through the interactive impact of entry strategy. For example, a pioneer might gain the name recognition and build reputation of market leader but take the burden of product development and market establishment and the associated risk of failures through the process of new product development and marketing (Cooper, 1999).

From the practical perspective, the research on the market-entry timing for new products has focused on the dynamics of market demand, the intensity of competition, the level of product quality, the quality of market intelligence, the speed of industry evolution, and other business environmental factors. (Lilien and Yoon 1990; Müller-Stewens and Möller, 2017). Strategic windows of target customers may open or close, reflecting the levels of customer needs and expectations, the availability of alternative technologies, and the dynamics of pricing competition. The long-term performance of a new product is subject to the fit of the product quality to customer needs, the efficiency of marketing, evolution of customer responses, the collaboration of supply chain partners, and other timing-dependent variables. Pioneers need to evaluate the impact of incumbent and emerging competitions before and after the market entry to minimize the unexpected negative impacts on their market performance. Entering too early often

skips the rigorous market testing, which may end up with a not-so-superior product to the customers and allow later entrants to eclipse the leader position of the pioneering firm. Conversely, should the product be released much later than the optimal time, other firms may enter the market ahead of its entry schedule. Market intelligence should be timely available from various sources including the sales logs, surveys, and social media to continuously examine the firm's market, customers, and competition situations. The demand for a new product over time depends on the stage of industry evolution as well, for example, the concept of product life cycle curve is often consistent with the industry practitioner's insights into the *timing* of market entry.

Focusing on the potential advantages and disadvantages that are associated with the entry-timing decisions, this paper examines a qualitative decision of entering the market as a pioneer or follower with a new product, specifically whether the timing-related factors are common or different across the cases of pioneering and following strategy. A case-based investigation is conducted for this exploratory study to discuss the strategic implications for the new product managers and entrepreneurial innovators.

PIONEERING VS. FOLLOWING AS A MARKET-ENTRY OPTION

For the radical or disruptive innovations of such innovative firms as Apple or Microsoft, the importance of being the first to market has been explained with the measurable benefits of pioneering with their high-quality new offerings. The potential advantages of pioneering are demonstrated with increased sales through the long product life, high margins with premium pricing, sustainable customer loyalty for upgrading purchases, high resale opportunities with enhanced value, and broad brand recognition across the segments. Being the first to market is especially important in the high-tech industries in which product life cycles are short and it is difficult for the late entrants to catch up the market leadership of the pioneers (Zhu and Furr, 2016). The rationale for pioneering to help gaining a high market share includes: (a) customers are generally risk averse, (b) pioneers can offer the front-end prototypes for the product category, (c) buyers learn the product attributes from the early entrants, and (d) early entrants can secure the best positioning in the marketplace. Thus, the pioneering strategy is most likely to succeed when the firm has appropriate skills and resources to enable pursuing a high-risk for high-return strategy (Lieberman and Montgomery, 1998).

An example of pioneering as a winning strategy is the case of *DigitalFactory*. In a world where all areas of business and personal exchanges are occurring digitally, there is a significant demand for tying the online systems together in an efficient manner for an improved customer experience. According to the market research of IDC, global spending on IT products and services is predicted to grow from about \$2.4 trillion in 2016 to more than \$2.7 trillion in 2020 (Noyes, 2016). This rapid industry growth comes from the investments in cloud, mobility, and big data technologies for digital transformation. *DigitalFactory* supports the customers to visit one website to process all questions into one application from which all associated activities would share the data and timelines. One efficient flow of information replaces the redundancy of entering data multiple times by integrating the associated business processes, resulting in significant enhancement of the customer experience. The pioneering market-entry of *DigitalFactory* has allowed various advantages of capitalizing the firm's capacity to: (a) determine the industry standard, (b) select the best positioning and business partners, (c) achieve the learning curve cost advantages, and (d) build the reputation of innovativeness among the customers. The growth potential of the company is supported by an industry survey, predicting

that by the end of 2017, two-thirds of the CEOs of Global 2000 companies are expected to have digital transformation as a part of their corporate strategy; 86% of respondents report their plans to make inroads with digital transformation over the next two years; and, 59% of respondents express some worries that they may be already too late for the technological moves to this direction (Laudhouse, 2016).

For the following strategy, i.e. entering the market already established by the pioneering firms, the success factors include capitalizing on the mistakes of the pioneers in technology, product, positioning, channel selection, promotion, and/or pricing. Pioneers may lose their advantages for such reasons as: (a) An entrenched pioneer may not be offering a superior level of customer service, (b) A new technology may have changed the cost equation so that a new entrant can offer similar or better service at a lower cost, (c) New entrants may have developed a new way to access the market with an innovative distribution strategy, (d) The late entrants may be pricing very aggressively by taking advantage of the incumbent's tendency to average pricing across all segments, and/or (e) Pioneering firms may experience such release flaws as failing to support the unpredicted fast growth of the market. Many successful companies like Google, Facebook or Yelp were not the original innovators but the fast followers who quickly entered their respective markets that were validated by the products or services of the pioneering firms (Cabage, 2016).

An example of following as a practical choice of marketing success is the case of *Microsoft Surface Phones* whose launching has long been postponed in the smartphone market. Their delays of market-entry have been explained with such timing-related concerns as: premature support of recently released Microsoft Surface Pro; a competitive market entry of Google Pixel on the heels of iPhone 7; bouncing back of Samsung from its current battery vows; and consumers not being ready for new innovative features of the product (Wergeles, 2016). Another reason for the delayed release of Surface Phone could also be the quality concern on the product. To ensure the quality of its product, market knowledge and intelligence must be further gathered and analyzed for Microsoft to determine the optimal time for market entry. After missing the opportunity in 2007-2009 when the market for Apple iPhone and Samsung smartphone started picking up exponentially, Microsoft has been preparing a plan as a follower, particularly with its Windows 10 operating system and Azure cloud as the cornerstones to create a strong ecosystem of application and services. Microsoft has been waiting for Windows 10 to reach the point of critical mass for the Surface Phone to target the enterprise customers already using Windows operating system on their desktop and laptop devices. To help their secure and productivity-focused phone for the business and corporate customers enter the market successfully, the professional use of the Windows 10 Operating System would allow an easy transition of the phones of the users.

AN EXPLORATORY CASE STUDY

The ninety-two cases of pioneering or following market entries are compiled from the content analyses of the corporate reports by the MBA students during the Summer of 2017. Tables 1 and 2 list the cases with the new products, companies, and market-entry years. Each case reports the key contributing factors to the market success of the relevant new product. The same or similar factors were grouped into a category. Tables 3 and 4 compile these categories of success factors.

Table 1
Cases of Pioneering Market Entry

New Products	Company Names	Entry Year
1. Healthya	Kao Corporation	2003
2. Roomba (Robot Vaccum)	iRobot	2002
3. Onstar Satellite Service	GM	1996
4. Maruti(India)	Suzuki	1983
5. Google	Google	1998
6. Liquid Soap (Soft Soap)	Minnetonka Corporation	1980
7. AWS	Amazon	2002
8. Ride Shareing	Uber	2009
9. Nivolumab	Bristol-Myers Squibb	2009
10. Skype	Skype	2003
11. D-CORE	Isuzu Motors Limited	2012
12. Blue Jean	Levi Strauss & Co	1973
13. Medical Representatives (MR)	M3 (Medical Media Metamorphosis)	2006
14. Helium Supply	AWI (Air Water Inc)	1969
15. Prius (Hybrid Vehicle)	Toyota	2003
16. Financial Information	Askul	1997
17. iPod	Apple	2001
18. Enery System Solution-PV	Conergy	1998
19. Play Station Virtual Reality	Sony	2014
20. DVD Rental system	Netflix	2008
21. CRISPR Technologies	CRISPR	2015
22. Coke	Coca Cola Company	1888
23. Battery Electric Vehicle: LEAF	Nissan	2011
24. Industrial Robot	Yaskawa	1972
25. Piano Production (Japan)	Yamaha Corporation	1949
26. Window	Microsoft	1986
27. Shipping Container	Sea-Land Service Inc. (Maersk Line)	1956
28. TrackWise	Hitachi Industry & Control Solution Ltd	2005
29. Energy Products and Services	Envirofit	2015
30. Polaroid Camera	Polaroid	1947
31. Security Service	SECOM	1977
32. Mobile Network Operator	Docomo	1991
33. Endoscopes	Olympus	2012
34. Flight Service	GlobeAir	2008
35. Online Community & Marketplace	Airbnb	2008
36. Convenience Stores in Japan	Seven Eleven	1974
37. Walkman	Sony	1979
38. Rockets and Spacecraft	SpaceX	2002
39. Software-as-a-Service (SaaS)	Salesforce	1999
40. Trans Artery Valve Implantation	Edward Lifescience Corporation	2007
41. Snowboard	Burton	1970
42. Carbon Fiber (PAN)	Toray Inc	1971
43. Snapchat	Snap	2011
44. Loan service	Lendingtree	1998
45. Felica	Sony	2002
46. CVS Pharmacy	CVS Health	1963

Table 2
Cases of Following Market Entry

New Products	Company	Entry Year
1. Playstation	Sony	1994
2. Smart Phone (Galaxy S) Samsung	Samsung	2010
3. Online Service System	Amazon	1995
4. Television Manufacturing	Vizio	2007
5. iPod	Apple	2001
6. Search Engine	Google	2004
7. E-Commerce	Alibaba	1999
8. Social Media Network	Facebook	2004
9. Car Share Ride System	Lyft	2012
10. Pembrolizumab	Merck & Co. Inc.	2014
11. SKYACTIV-D	Mazda Motor Corporation	2010
12. MRO Distributor and Manufacture	Askul Co.	1997
13. Toilet Seat Washlet	TOTO	2010
14. Helium Supply	Iwatani Corporation	2013
15. Liquid Crystal TV and Smartphone	Samsung	1995
16. Tanomail	Otsuka Corporation	1999
17. CoffeeHouse	Starbucks	1971
18. ILOHAS Water (Japan)	Coca Cola	2009
19. GoToMeeting	Logmein, Inc.	2004
20. E-Tailer (Amazon Business)	Amazon	2005
21. Lithium Ion Battery	LG Chemical	1999
22. TaTa Nano	TaTa	2009
23. Microsoft Azure	Microsoft	2008
24. Industrial Robot	FANUC	1992
25. Fast Fashion	Fast Retailing Co., Inc. - UNIQLO	2001
26. Donkey Kong (Video Game)	Nintendo	1980
27. Line	LINE Corp	2011
28. Donepezil Hydrochloride Tablet	Sawai Pharmaceutical Co., Ltd.	1999
29. PD-1	Opdivo	2009
30. amaLet's Note and Tough Book	Panasonic	2002
31. LCD	Samsung	1996
32. Drink(juice)	AJE	2000
33. Yahoo Shopping (Japan)	Yahoo Inc	2007
34. UberX	Uber	2012
35. Streaming Music Service	Spotify	2008
36. Athletic Apparel	Under Armour	1999
37. ECMO System	Cardiohelp	2008
38. Zantac	Glaxo	1983
39. CRM	Zendesk	2007
40. Solar Panels	Koycera	1993
41. Vortex Flow Meters	Endress+Hauser	1970
42. Amazon (Japan)	Amazon	2000
43. Solar Power Energy (Japan)	Sharp	2001
44. Abtronic	Japan Networks	2001
45. Electrification	Siemens AG	1847
46. Automotive	Subaru	2008

Table 3
Factors for the Success of Pioneering Market Entry

<p>Cost/Pricing Advantages: Low product cost, Reduced price, Effective pricing plans, Costs lower than other companies, Preventing price collapsing, High price since other companies are not developing equivalent ones, Low price plus time value, Low cost for the proved quality, High switching costs for early adopter, Downgrading for the price-sensitive customers, Market intelligence on the sensitivity of price, adding pluses into lineups, Reduction of hardware costs</p>
<p>Number of reporting Cases: 16 Case ID's: 3, 4, 7, 8, 9, 10, 12, 13, 15, 17, 19, 26, 29, 34, 37, 45</p>
<p>Enhanced Customer Service: Upgraded customer service, Local customer advisors and technicians, Catching the customer's needs, Caring of customer's risk averseness, High quality service while optimizing costs, Free credit check, Good customer support with phone/email, Direct communication with customers, Loyalty card program, Responding consumer's voice</p>
<p>Number of reporting Cases: 13 Case ID's: 3, 7, 12, 13, 18, 25, 27, 28, 31, 34, 43, 44, 46</p>
<p>Technical/Technological Superiority: Technical strength, convenient order system, Utilization of existing technologies, Advanced or new technology, First digital product (Yamaha piano), Demonstrated technology leadership, Innovative product, High quality technology, Integration of unique software, Unique feature of electronic security, inventing different type of product series</p>
<p>Number of reporting Cases: 12 Case ID's: 1, 2, 9, 11, 15, 18, 21, 22, 25, 31, 37, 46</p>
<p>Appealing to Customers: Appeal, Appearance, Preference, Aesthetic (Model change of Prius), Prototype, Innovated product line of aesthetic, Customer needs and preferences</p>
<p>Number of reporting Cases: 11 Case ID's: 6, 8, 9, 11, 15, 18, 21, 22, 27, 34, 40</p>
<p>Intelligence Advantage: Facilities and knowledge, Market intelligence, Analysis of the market demand and customer needs, Analysis of customers market data, Understood the market potential</p>
<p>Number of reporting Cases: 10 Case ID's: 1, 2, 7, 16, 17, 19, 38, 40, 41, 44</p>
<p>Partnership Advantages: Collaboration with supply chain partners, Creating and extending partnership, Collaboration with supply chain partners, Manufacturing alliances</p>
<p>Number of reporting Cases: 6 Case ID's: 2, 3, 9, 21, 37, 45</p>
<p>Supporting Resources: Human resource support, Possibility of preempting scarce resource, Occupying scarce resources first, Crowd sourcing of content</p>
<p>Number of reporting Cases: 5 Case ID's: 2, 4, 26, 36, 43</p>
<p>Brand Loyalty: Established brand, Strong brand identity, Total lifestyle brand, Established brand called 501, Creating brand loyalty, High awareness, Health awareness</p>
<p>Number of reporting Cases: 4 Case ID's: 1, 12, 38, 45</p>
<p>Financial Strength: Healthy financial condition, Investment even though the demand was low</p>
<p>Number of reporting Cases: 4 Case ID's: 2, 7, 40, 42</p>
<p>Segmentation Advantages: First choice of market segments and position, Secured market position, Acquired strong positioning, Market position as the market leader</p>
<p>Number of reporting Cases: 2 Case ID's: 4, 45</p>
<p>Others</p>
<p>Number of Cases: 17 Case ID's: 2, 4, 7, 9, 10, 12, 15, 17, 19, 25, 27, 30, 31, 37, 43, 45, 46</p>

Table 4
Factors for the Success of Following Market Entry

Technical/Technological Superiority: New technology, 3D technology, Improvement of technology, product technology, High-quality technology, Technical Innovation, Easy-to-use new product, Unique agent system, Technological leadership, Successful disrupting for existing mature channel, Innovation of new product
Number of reporting Cases: 16 Case ID's: 2, 3, 7, 8, 12, 20, 23, 24, 25, 26, 27, 28, 30, 36, 43, 46
Cost/Pricing Advantages: Low product cost, Cost leadership, Low pricing, Cost reduction, Focus on controlling all aspects of costs, marketing costs to a minimum, Aggressive pricing, Free shopping fee
Number of reporting Cases: 14 Case ID's: 4, 8, 18, 20, 23, 24, 26, 28, 31, 32, 33, 35, 39, 44
Enhanced Customer Service: Good customer Service, Technical support staffs for game markers, customer needs for choice and understanding customer support, Satisfying customer needs, Adopt to the customer's need, Understanding the customer's pain and problem, A fulfilling user review as reference information at purchase, Responding the customer needs, Channel selection, Web service
Number of reporting Cases: 14 Case ID's: 9, 16, 22, 23, 24, 26, 27, 35, 38, 39, 42, 43, 44, 45
Superior Quality: High quality, Product superiority and quality, Product quality, Quality product, Product value, Strong messenger by adding games
Number of reporting Cases: 12 Case ID's: 1, 2, 5, 8, 10, 11, 17, 19, 25, 38, 42, 44
Appealing to Customers: Appealing appearance, Slow supply chain of music stores, Beautiful computer graphic, good background music, Weight reduction, Menu is devised with sizes listed in Spanish, Affected the material cost change, Simply assembly plant, Overwhelming number of items in cross, Distribution model
Number of reporting Cases: 12 Case ID's: 5, 8, 22, 26, 27, 28, 32, 36, 38, 42, 44, 46
Intelligence Advantage: Market intelligence, Changing the game by aiming at the different target segment, changing the game by adopting a new business model
Number of reporting Cases: 12 Case ID's: 2, 3, 12, 19, 20, 22, 25, 33, 35, 36, 43, 45
Brand Loyalty: Strong brand identity, very positive company image, building a strong brand, Existing brand Identity, Strong Brand strength, Brand image
Number of reporting Cases: 6 Case ID's: 1, 3, 9, 20, 22, 42
Segmentation Advantages: Segments, Position, Focused on niche, Demanding market green
Number of reporting Cases: 6 Case ID's: 2, 9, 11, 25, 30, 32
Supporting Resources: Resource, Development of additional technology for members, Pipeline of new opportunities
Number of reporting Cases: 3 Case ID's: 2, 8, 31
Partnership Advantages: Successful partnership, Partnership provide opportunity for exposure
Number of reporting Cases: 2 Case ID's: 2, 9
Others
Number of Cases: 9 Case ID's: 1, 2, 3, 7, 9, 10, 18, 19, 26

For the forty-six cases of pioneering market-entry, eleven categories were identified as their success factors in the order of high frequency: Cost/Pricing Advantages, Enhanced Customer Service, Technical/Technological Superiority, Appealing to Customers, Intelligence Advantages, Partnership Advantages, Supporting Resources, Brand Loyalty, Financial Strength, Segmentation Advantages, and Others. For the forty-six cases of following market-entry, the same categories were identified as

their success factors but in different order of high frequency: Technical/Technological Superiority, Cost/Pricing Advantages, Enhanced Customer Service, Superior Quality, Appealing to Customers, Intelligence Advantages, Brand Loyalty, Supporting Resources, Segmentation Advantages, Partnership Advantages, and Others including Financial Strength.

MANAGERIAL GUIDELINES AND FUTURE RESEARCH

Optimality of the market-entry time for a new product is subject to the market and business circumstances a firm is facing with a string of many *ifs*, *ands*, and *but* (Calantone and Di Benedetto, 2012). One of the implications of the current case-based exploratory study is that developing and launching a unique or enhanced new product needs to keep the concept of timing decisions through the whole process of innovation. There are many practical questions for the product managers to keep their eyes on: (a) *Is product ready to go?* The optimal time to launch a new product is generally as soon as the viable product meets the stated minimal function and quality. This approach is cost-effective and helps taking advantage of the excitement with the product and its future refined versions. (b) *Is launching program on schedule?* The market-entry time is to be consistent with a firm's overall launching schedule which should be programmed in advance to timely resolve the customer service issues, press release plans, and other contingency plans for unpredictable changes of the market situations.

Other question would be: (c) *Is infrastructure well established?* A firm's brand credibility should be established in advance to boost the initial demand for the new product. Business infrastructure such as distribution network, customer service, or communication effort to support sales programs should be timed well to the new product launching. Unique features and functions of the new product should be validated through testing and timely communicated to the customers. (d) *Are sales forecasts well estimated?* Without adequate research on what the projected demand will be, a firm could often over-produce or under-produce. Market testing with the presence of sales manager having long-term customer relationship will improve the reliability of demand forecasting significantly. And (e) *are the assumptions for launch plan well checked?* There are many critical assumptions to be validated before making the final decision for launching such as: The product or service is a perfect choice for the targeted customers in the current market; The brand equity is expected to help the success of our new product or service; The competitors' products and their strategies are well understood and prepared to overcome their reactions or responses, etc. (Bart and Pujari, 2007).

Future research is expected to expand and deepen the database through (a) a confirmatory case study of the importance rankings of the success factors and (b) a survey of the project leaders for selected cases to confirm their perception on the success factors. A confirmatory factor analysis can be applied to such an importance ranking data which will be useful to validate the finding of the current exploratory content analysis. These follow-up database and statistical analysis will help refine the strategic implications and develop the benchmarking guidelines for the practitioner of new product development and marketing.

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