The impact of 4Ps on Purchase Decision: A case of Apple in Hanoi, Vietnam

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Abstract
By using quantitative research methods and deductive reasoning, this research paper aims to address the importance of four marketing mix components (4Ps) on purchase decisions of customers of Apple Inc., by launching a survey in Hanoi, Vietnam, to generate primary data. The chosen sampling technique is quota sampling and several “quotas” were built. Descriptive analysis and hypothetical analysis (t-test, one-way ANOVA and Regression) using SPSS 20.0 are applied. Other implications of the research and limitations were also discussed below.

Keywords: marketing mix, purchase decision, Apple Inc., Vietnam, quota sampling.

Introduction
In a competitive and complex marketing environment nowadays, identifying factors influencing purchase decisions of customer is an undeniably important task. The traditional marketing
mix framework has been used by marketers and managers for years, yet no one has ever conducted a research on the impacts of this framework’s components on purchase decision. This research paper is written with the intention of explaining the hypothetical impacts of marketing mix elements on purchase decision, taking the case of Apple Inc. in Hanoi, Vietnam as an example.

**Research background**

Marketing mix, simply put, is a set of marketing variables to be identified and controlled to meet customer demand. The ultimate purpose of meeting customer demand is to influence purchase decisions of target customers. Both these two concepts (*marketing mix and purchase decision*) have been receiving much attention from academic community in the recent years. The framework of marketing mix was made known by Borden (1964) and modified by McCarthy (1964), which is widely used in marketing practices, while the concept of purchase decision is a stage of the Buying Decision Process, where the customer decide to buy a specific product (Kotler and Keller, 2011); therefore it is remarkably important. The detail literature review of these two can be found in the next section.

Nowadays, the growing complexity (Ahmed, Hardaker & Carpenter, 1996; Gilmore & Pine, 1997; Doherty & Delener, 2001; Burnes, 2005; Yadav, Swami & Pal, 2006) and increasing competition of the business environment (Azad, Roshan & Hozouri, 2014) brings difficulties to marketers and managers in identifying, applying and controlling their marketing mix strategies. The current situation provokes the researcher to assist marketers and managers to evaluate and to understand the impacts of marketing mix elements on purchase decisions. This could be considered as the major reason for choosing this research topic.

**Literature Review**

**Apple on a global basis**

Apple Inc. is an American multinational enterprise, which was established on April 1, 1976 in Cupertino, California by Steve Job, Steve Wozniak and Ronald Wayne and then incorporated on January 3, 1977, without Wayne (Schwartz, 2012). The company specializes in creating and selling personal computers, consumer electronics, online services and computer software.
By 2014, Apple has employed 72,800 permanent full-time employees, owning 437 stores in 15 countries, with the global revenue of US$182 billion (Khan, 2015). Apple is also a popular brand as the second largest information technology company by revenue after Samsung Electronics (Vincent, 2013), and the world's third-largest mobile phone maker by Q3 2014, accounted for 8.4% of the total global market (Rivera & Meulen, 2014). This company is famous for its effective branding strategy, bringing a young, innovative and stylish image to attract customers.

Although the initial prices of Apple products are high, they are usually reduced over time. The company's high sales are because of its aim to higher level of perfection, which delivers the image of high-quality products and services among customers. This company's promotional strategies are also considered as customer-oriented, focusing on promoting new products and services to customers, playing the role of a pioneer in the rapidly growing technological era nowadays. Unquestionably, Apple is one of the world's most successful retailers (Chazin, 2013).

On 4th October 2011, Steve Jobs passed away because of pancreatic cancer, leading to speculation about ability of Apple in creating innovative products without him (Schwartz, 2012). As the marketing environment is becoming more and more complex nowadays, Apple Inc. should reconsider its marketing mix strategies to meet the growing demand in product quality of the mass.

On 30th September 2013, Apple surpassed Coca-Cola to become the most valuable brand of the world in the Omnicom Group's report called - Best Global Brands (Nielson, 2014).

**Apple in Vietnam**

According to Linh (2014), Vietnam is Apple's hottest market, with its revenue tripled in the first half of 2014. The figure is expected to climb because the majority of Vietnamese consumers are youngsters and they are interested in high technology. The number of Internet and mobile phone users is also rising and the middle class is predicted to double by 2020.

Further, the market is considered as potential, with a highly brand-conscious population. The Apple's products are considered as stylish to Vietnamese people and they are willing to pay to affirm
their social status. Therefore, Apple, the number 1 brand in the world, is efficiently selling its products in this country (Do, 2014).

**Marketing mix?**

James Culliton was the first person who invented the term in 1948, based on the single price factor of microeconomic theory (Culliton, 1948; Chong, 2003). However, only until 1964 the term marketing mix was popularized by Borden in his article entitled “The concept of marketing mix”, as the marketing tool that helps marketer in designing marketing plans. Product planning, pricing, branding, channels of distribution, personal selling, advertising, promotions, packaging, display, servicing, physical handling, fact-finding and analysis are twelve factors of the classical marketing mix of Borden (1964). In the same year, McCarthy defined the marketing mix concept as a set of factors that a manager can use to leverage to fulfill market needs (Dominici, 2009), and refined the idea of marketing mix to a mean to put marketing plan into practice (Bennett, 1997) with four major elements (Product, Price, Place and Promotion).

As defined by McCarthy and Perreault (1987), marketing mix is a combination of variables that an enterprise may control and use to meet the needs of its target market, while Kalyanam and McIntyre (2002) considered marketing mix as a set of micro-elements clustered for simplified management. Tellis (2006) saw marketing mix as a set of variables that marketers could control to affect sales or market share.

Lately, marketing mix was redefined as a set of marketing tools that the organization could tactically control to produce the specific responses in the target market (Kotler & Armstrong, 2012). Since its introduction in 1940s, the marketing mix has been playing the major role of differentiation maker in marketing management (Van Waterschoot, 2000).

**Purchase decision?**

Much attention has been paid on purchase decision from both academics and practitioners because of its importance not only in predicting operational success, but also in accomplishing viable competitive advantage (Parasuraman, Zeithaml & Berry, 1985; Zeithaml, 1988; Bolton & Drew, 1991; Dodds, Monroe & Grewal, 1991; Holbrook, 1994; Cronin, Brady & Hult, 2000). Purchase
decision was defined as a uninterrupted process, referring to a prudent, persistent action that, after being carried out, brings need satisfaction. This concept may be viewed symbolically in respect of sentimental responses, sensory pleasures, or even reveries and artistic considerations (Engel, Blackwell & Miniard, 1993). From the view of a marketing strategist, establishing purchase decision means meeting the needs of target customers and improving the perceived satisfaction (Porter, 1985). Other past researches on purchase decision have also interpreted not only the multifaceted nature, but also the situation-dependent nature of perceived customer value (Parasuraman et al., 1985; Zeithaml, 1988; Bolton & Drew, 1991; Dods et al., 1991; Holbrook, 1994; Cronin et al., 2000). As cited by Shareef, Kumar & Kumar (2008), a purchase decision could be adjusted according to each person and/or consumption situation arisen from the quality aspects of sellers. Purchase decision is considered by Engel et al. (1993) as a phenomenon which contains individualistic, circumstantial, communal and perceived environmental facets.

**Impacts of Marketing Mix on Purchase decision**

Nowadays, companies are being forced to pay more attention to customer satisfaction, as a result of rising competition, by applying marketing strategies and providing customer services in higher levels (Vukasovic, 2010; Manjeshwar, Stemquist & Good, 2013; McCutcheon, Bruwer, & Li, 2013; Azad et al., 2014). Further, as cited by Zhafera, Andreti, Akmal & Kumar (2013), marketing mix framework is one of many tools that help marketers in designing the marketing strategy, having undeniable impact on the customer’s decision-making process these days. Many researches have concentrated on explaining the importance of the marketing mix components on purchase decision (e.g. Cash, 1984; Simon, 1989; O’Cass, 2000; Rosa Diaz, 2001; Vanhuele & Dreze, 2002; Kenesei & Tod, 2003; Ahmetoglu, Fried, Dawes, & Furnham, 2010; Muzondo & Mutandwa, 2011; Satit, Tat, Rasli, Chin & Sukati, 2012; Lolo & Irwinda, 2012; Fadhillah, 2013; Neha and Manoj, 2013; Zhafera et al., 2013).

The following hypotheses are suggested:

H1: - The marketing mix of Apple (Vietnam) has impacts on Purchase decision.
H2a: - There is statistical difference between males and females in Purchase decision.

H2b: - There is statistical difference between single and married respondents in Purchase decision.

H2c: - There is statistical difference among age groups in Purchase decision.

Research methodology

Research framework

![Diagram showing the research framework]

H1
Marketing mix framework (4Ps)

H2
Socio-demographic factors

Purchase decision

Research design

Survey is the chosen research strategy, as this strategy is ubiquitous and usually associated with deductive reasoning and quantitative data (Saunders, Lewis & Thornhill, 2009). This method also allows the collection of a significant amount of quantitative data from a sizeable population at a low cost, which could be analyzed using descriptive and inferential statistics (Saunders et al., 2009). The researcher will ask respondents to answer 46 questions to find the possible reasons for the relationships between variables. The results would be highly representative for the whole population, as the questions will be simplified to be easy to understand and to lower the answering time. Further, the number of responses will be collected as high as possible by using the online survey program named Google Docs to raise the validity of the research. The online questionnaire will be sent to Vietnamese customers through email addresses and Facebook accounts.
Sampling and Measures

The total population is Vietnamese customers of Apple in Hanoi, Vietnam. The sampling frame is not included, as there is not necessary to use a frame for the proposed quota sampling method (Crawford, 1997; Gschwend, 2005). Further, this common method is cheap and convenient, could be administrated easily and less time-consuming (Crawford; 1997; Gschwend, 2005). This sampling method is also suggested as potentially good for Internet-based research and being used by several researchers (Im & Chee, 2011). Further, as pointed out by Bulmberg, Cooper & Schindler (2011), non-probability techniques are often used because of its advantages in saving cost and time. Many empirical evidences also support the idea that bias of non-probability sampling is negligible (Hill, 2004).

The self-administered questionnaire was conducted between 1st June and 9th July 2015. The questionnaire is well-designed to encourage respondents to fill in and return, whilst not appearing too long (Saunders et al., 2009), with only over 1000 words within 5 pages in total. For marketing mix items, the preliminary questionnaire was designed based on the marketing mix model of Kotler and Keller (2011). Purchase decision items were designed based on the ideas of Piron (1993). The questionnaire also contains nine questions related to demographic variables, which are used for analysis using t-test and ANOVA.

As suggested by Dillman (2007), the best way to obtain valid responses is to keep the visual appearance and the wording of the questionnaire simple; therefore, the researcher design the questionnaire using basic features of Microsoft Word 2010, Microsoft Paint and Google Docs. A matrix of questions is used in the questionnaire, as this method helps to reduce apparent length without reducing legibility (Saunders et al., 2009). A similar online questionnaire will be designed, identical with the paper one, to generate responses from samples through their email addresses and Facebook accounts, with the intention of reducing travelling and interviewing time.

The Likert-style rating scale (5 points) is chosen as the scaling technique for the questionnaire, as this type of scaling is popular in almost all fields of academic and business research (Chimi & Russell, 2009). This type of scale provides a useful and simple way to generate data in social sciences (Mellor & Moore, 2014). This type of
scale is chosen because it is personally considered as simple and easy to conducted, allowing respondents to indicate degree of agreement or disagreement with a series of statements (Saunders et al., 2009).

As the purpose of the research is to identify and analyze the impact of marketing mix components on purchase decision of customers in Hanoi, eight major districts of Hanoi were chosen as surveying locations. After distributing a total number of 200 questionnaires over 4 weeks, 175 questionnaires were collected, 18 of which were incomplete. This resulted in a total of 157 usable questionnaires, a response rate of 78.5%. This result is consistent with the minimum standard of at least five times the number of variables, as cited by Myers, Ahn & Jin (2013).

**Results and discussion**

The descriptive analysis showed that most respondents are from 20 to 40 years old (70.1%), married (68.2%), college/university graduates (60.5%), from Cau Giay Dist., Ba Dinh Dist., Dong Da Dist., Thanh Xuan Dist. and Hoang Mai Dist. (83.5%), work for private companies in service sector or as civil servants, or for state companies (83.5%), work as employees or managers/supervisors (84.7%). These figures indicated that the majority are from the middle-class and upper-class families, having the total income of over 6,000,000 VND/month (90.4%). The questionnaire results also showed that most respondents (85.6%) chose to use iPhone, iPad and Apple services, while only around 14.5% chose to use other Apple products. This point indicated that iPhone, iPad and Apple services also are undeniably popular among Vietnamese customers in Hanoi, while Apple needs to have more effective strategies to attract customers to their other products (iPod, iMac/Macbook and iWatch) (Table no. 1).
Table no. 1. Q46 Frequencies

<table>
<thead>
<tr>
<th>Used Apple products(^a)</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>iPod</td>
<td>32</td>
</tr>
<tr>
<td>iPhone</td>
<td>141</td>
</tr>
<tr>
<td>iPad</td>
<td>94</td>
</tr>
<tr>
<td>iMac</td>
<td>16</td>
</tr>
<tr>
<td>iWatch</td>
<td>3</td>
</tr>
<tr>
<td>Services</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td>352</td>
</tr>
</tbody>
</table>

The factor analysis pointed out that the Kaiser-Meyer-Olkin value was 733, and the Bartlett’s Test of Sphericity was statistically significant at .000 level (Table no. 2). The results also showed that the alpha coefficients of .777, .734, .729, .790, 554 and 786 belong to Product, Price, Place, Promotion, Predecision Stage and Post Purchase Stage respectively (Table no. 3).

Table no. 2. KMO and Bartlett’s Test

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>.733</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s Test of</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>.666</td>
</tr>
<tr>
<td>df</td>
<td>861</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

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Table no. 3. Cronbach’s alpha of factors

<table>
<thead>
<tr>
<th>Measurement scale</th>
<th>Number of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>7</td>
<td>.777</td>
</tr>
<tr>
<td>Price</td>
<td>8</td>
<td>.734</td>
</tr>
<tr>
<td>Place</td>
<td>9</td>
<td>.729</td>
</tr>
<tr>
<td>Promotion</td>
<td>10</td>
<td>.790</td>
</tr>
<tr>
<td>Predecision Stage</td>
<td>4</td>
<td>.554</td>
</tr>
<tr>
<td>Post Purchase Stage</td>
<td>4</td>
<td>.786</td>
</tr>
</tbody>
</table>

The Regression analysis revealed that there is enough evidence to conclude that the marketing mix have impacts on purchase decision of customers of Apple in Hanoi (H1 was supported).

Choosing Gender and Marital status as the analytical factors, the applied independent samples t- test showed that there is no statistical difference between males and females and between single and married respondents in Purchase decision (H2a, H2b were unsupported).

With Age as the analytical factor, the result of applied one-way ANOVA indicated that there are reliable effects of Age on Purchase decision (H2c was supported). Above 60 years old is the factor having highest mean (M = 3.7188), followed by 20 - 30 years old (M= 3.5660), 30 - 40 years old (M = 3.4890), 50 - 60 years old (M = 3.4250), 40 - 50 years old (M = 3.3947) and below 20 years old (M = 3.2589).
Table no. 4. Result of hypothesis testing

<table>
<thead>
<tr>
<th>No</th>
<th>Path</th>
<th>Figures</th>
<th>Hypothesis result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>MX --&gt; PD</td>
<td>( = 0.097/0.091 )</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F/\text{Sig} = 16.663/0.000^{**} )</td>
<td></td>
</tr>
<tr>
<td>H2a</td>
<td>Gender --&gt; PD</td>
<td>Levene Statistic ( p )-value = ( 0.141 &gt; \alpha = 0.05 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( t = 0.159, df = 155, p )-value = 0.874 &gt; ( 0.05 = \alpha )</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H2b</td>
<td>Marital Status --&gt; PD</td>
<td>Levene Statistic ( p )-value = ( 0.152 &gt; \alpha = 0.05 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( t = 0.172, df = 155, p )-value = 0.864 &gt; ( 0.05 = \alpha )</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H2c</td>
<td>Age --&gt; PD</td>
<td>Levene Statistic ( p )-value = ( 0.045 \leq \alpha = 0.05 )</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*P < .05
**P < .01

Implications, Limitations and Suggestions for future studies

There are several practical implications of the research paper:

1. The first strength of the research paper is giving a comprehensive view on marketing mix theories and purchase decision concepts and their developments. Readers can depend on this paper as an important source of information for further studies;
2. Another strength of the research is that a reliable questionnaire is adopted to collect information from the chosen samples. Future researches could use this questionnaire as a dependable framework to generate data;
3. Finally yet importantly, the step of hypothesis analysis is included in this research, with the benefit of testing the suggested hypotheses to identify discoveries.

On the other hand, the research paper contains several drawbacks: (1) Many ideas in the paper are cited from many secondary sources; however, the validity and reliability of these sources have not been carefully considered. Although the sources are mainly from academic marketing journals, the paper does not concern the issue, which could be a disadvantage; (2) Samples of the research are mostly civil servants, working for state companies or private companies in service sector. (3) Lastly, these days, marketers and managers are facing with many environmental factors in a growingly turbulent and competitive marketing environment. This paper does not contain the explanations of these environmental factors, and thus it could be considered a drawback.
There are several directions suggested by the researcher for future studies: (1) Future studies could apply other statistical methods to generate more exact results (ANCOVA, SEM – Structural Equation Model,...); (2) Further, the designed survey of the research is to generate the feedbacks of Vietnamese customers of Apple in Hanoi only; therefore, there is a need for analysis on differences between feedbacks of experienced and inexperienced participants. A larger-scale survey is also recommended as it will bring more objective results; (3) Other factors such as new components of marketing mix, or cultural, social, personal, psychological factors and perceived risks influencing customer purchase decisions, or economic situation or political environment of the analyzed case should be considered. These factors are undeniably important to the marketing mix strategies and purchasing process of customers; therefore should be carefully analyzed in future studies.

Bibliography


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