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**THE IMPACTS OF ADVERTISING
ON CONSUMERS AND FIRMS**

Bachelor's thesis

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Prague, May 12th 2015

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Abstract

Billions of dollars are spent on advertising by marketers every year to attract potential customers. But can advertising bring benefits to big brands? Why it is important for the firms to spend on advertising? To seek the answer to these questions, this article considers the effects of advertising on heavy advertised firms and consumers. The practical part was completed by conducting and collecting consumer surveys which include the most important survey about Vinamilk – the largest dairy company and also the 15th biggest company in Vietnam. In addition, by collecting the data from financial statements of Coca-Cola and its most powerful rival Pepsi; Apple and its competitors Microsoft and Samsung Electronics, empirical findings suggest that advertising is worth spending since it influences consumers' purchasing behavior and contributes to increase firms' revenues and net income.

Key words: effects of advertising, firms, big brands, sales, income, consumer behavior.

JEL Classification: L13, L63, L66, M21, M37.

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Introduction

From an economic point of view, advertising is becoming an increasingly significant element in the GDP of the industrialized world especially in developed countries. Nowadays, when walking down the streets of the big cities all around the world, people can easily catch many advertising billboard with sparkling, colorful lights or huge LED advertising screens which display some short videos of advertising. Due to the evolution of technology, everybody can also see advertisements everywhere on the internet, on TV, radio, and other means such as newspapers, magazines etc. All of these have marked a prosperous era of advertising innovation as well as economic development. In today's society, advertising has developed not only the width but also the depth. Speaking about the width of it, people can catch the ads here and there, from the nations with the traditional capitalist economy to the nations under social trends, from developed countries to developing countries. Referring to the depth of advertising, it has not only changed consumers' thinking and created a profound impact on the culture of all classes of society, but also distorts the pattern of consumers' activity. If a third dimension is added, it is the development of technology. The advertisements, in the past, were from the primitive means such as rumors, words of mouth among friends, blurbs from the sellers to other forms such as gifts, awards, reports, posters etc. to the modern means of communication, such as newspapers, magazines, radio, television, cinema, satellite communications (Satellite Broadcasting) and information on the network (internet). Thus, the advertising communications include three main forms¹:

1. Personal communication
2. Communication between individuals
3. The mass media

Based on the American Marketing Association and Colley's definition, advertising is any announcement or persuasive message, a mean of communication with the consumers of a product or service placed in the mass media in paid or donated by an identified individual, company, organization or sponsor to provide people information, develop attitudes and induce action beneficial to the advertisers (mostly the sale of product or service). Other explanation by Ayanwale et al. (1997) captured advertising having four features: a verbal and or visual message, a sponsor who is identified, delivery through one or more media and a payment by the sponsor the media.²

Advertising is also one subset of promotion mix, which is one of the 4Ps' in the marketing mix including product, price, place and promotion. Being a major marketers' mass-communication promotion tool, the primary function of advertising is to create product and brand awareness, persuade consumers to take eventual purchase decision.

There are basically two types of advertising: informative and persuasive advertising. According to Bagwell (2005)'s definition, persuasive advertising alters consumers' tastes, creates product differentiation, brand image and brand loyalty, thereby

¹ Dao, Dung. Television advertising in market economy: Analysis and evaluation. Ho Chi Minh: Vietnam National University, 2001, 10-13.

² B. Ayanwale, A., Alimi, T., & Ayanbimipe. T., 2005. The Influence Of Advertising On Consumer Brand Preference. Journal of Social Sciences, 10(1), 9-16.

creates a barrier to entry which gives the firms more monopoly power and makes it more difficult for new firms to enter the market. As a result, it will increase consumers' demand for firms' products, make it become more price inelastic, which is of course an obvious benefit for firms. The informative advertising, on the other hand, does not have persuasive elements. It simply provides consumers information of the product, for example how it works, price, product information etc. In this paper, I am going to examine only the persuasive aspects of advertising.

According to Statista (2015), there are both substantial growth in advertising expenditures and advertising revenues. Take the United States - the largest advertising market in the world for a specific example, the revenue from advertising incredibly went up from 65.11 billion dollars in 2009 to 103.72 billion dollars in 2013 while the advertising spending gradually rose from 158.26 billion dollars in 2011 to 171.05 billion dollars in 2013. Experts from Statista (2015) also predicted that the advertising spending of the United States, where the world's most creative advertising agencies are located, would shoot up to 220.55 billion dollars in 2018. At present, the expenditures on advertising of the United States accounts for one-fifth of the global (512.7 billion dollars) and the advertising revenues takes up to approximately 34% (581.01 billion dollars).

In general, global statistics show that advertising expenditures are increasing steadily over time. Many researchers have tried to seek reasonable answers for the questions arising from this fact, why are business organizations spending so much on advertising and how it affects those organizations and consumers? This study is also going to investigate the roles of advertising for firms and consumers.

1. Theoretical part

The essence of being in business of all firms in any economy is always to increase consumers' demand for the products, sales and maximize profits. In order to do this, many organizations, especially big brands use advertising as an effective tool to stimulate prospective consumers to spend on their products. In spite of the fact that it is very problematic for firms to predict future economic and social situation which influence sales, it is still advantageous for them to engage in some tools to affect consumers' buying decision.

1.1 Advertising & Sales, profits - Overview

There are plenty of studies tried to prove that advertising helped to speed up the growth of demand for the products (P. Doyle 1968, N. Piggott, J. Chalfant, J. Alston and G. Griffith 1996, D. Karlan, M. Kuhn, J. Zinman 2009). Professor Borden (1984) suggested that the effects have been exaggerated, he said: "Even if it is accepted that advertising does increase demand for some products, one must also consider whether it could be stimulated by alternative means, such as price cuts, quality changes and rising real incomes. It is difficult to disentangle the effects of advertising from the other factors which have influenced demand." However, it is still possible to test partial direct effects of advertising to sales and earnings.

To look into the relationship between advertising and sales, Simester, Hu, Brynjolfsson and Anderson (2006) showed findings from a large-scale field experiment that investigated whether there was a causal relationship between current advertising and future sales. Their paper introduced the field test conducted in the direct mail industry with a mail-order catalog that sold women's clothing in the moderate price range (direct mail takes up to 20% of all advertising in the United States and is the single largest type of media advertising according to Advertising Age 2005). In consequence, they found out that current advertising does affect future sales but the sign of the effect varies depending on which kind of group the customers are in. For the firm's best customers - mean for the loyal customers, the long-run effect of increases in current advertising is actually negative. However, for other customers, the effect is positive. They said: "We then tracked both the immediate response and the impact on future purchases by these customers. The findings confirm that current advertising can impact future demand. Interestingly, the impact is quite heterogeneous. Among the company's most valuable customers, who had purchased recently and frequently from the company, the long-run impact was negative. The short-run lift in demand for these customers was apparently largely due to cross-channel and temporal substitution. In contrast, among the less valuable customers, who had purchased less frequently and/or less recently, advertising had a positive impact on future demand." To be more precise, they divided customers into two groups: the "best" customers - the customers who had historically purchased recently and frequently and the "other" customers, who had historically purchased less frequently and recently than the "best" customers. The findings indicated that advertising does have a considerable impact on future demand for those customers. In the short run, the demand of both groups increases. However, in the long run, sending more current catalogs led to positive future impact of the "other" customers only while the result was negative for the "best" customers. To sum up, it turns out that advertising causes both increases and decreases in future demand, depending on the type of customer. In other

words, the work showed that current advertising does affect future sales but the sign of the effect varies depending on the customers targeted.³

Lambin (1969) partially described the effects of advertising on quantities sold based on real Belgian market data within a company over a period of 20 years along with the model including unit sales per 1,000 potential consumers as dependent variable and all important factors that affect sales as independent variables: real private disposable income per 1,000 potential consumers, weather: rainfalls adjusted for seasonal variations goodwill: lagged dependent variable, real advertising expenditure per 1,000 potential consumers, change in visit-frequency to sales outlets, change in real retail price, residual or unexplained variation. The regression result showed that the most significant variables were: income, goodwill, and advertising respectively. In addition, keeping all other things remaining unchanged, increasing 1 per cent in advertising pressure would lead to an increase of 0.19 per cent in quantities sold. Therefore, in the short run, any increase in advertising expenditure would have almost no influence on sales. However, in the long run, it was shown that an increase of 1 per cent in advertising expenditure would lead to 0.385 per cent increase in quantities sold, although the total effect would be spread over several years.⁴

P. Doyle noted that: “In the short run the profit maximizing level of advertising would be very small or zero, since sales would not fall off as drastically because of residual consumer loyalty and resistance to change. In the long run, however, the absence of advertising would usually be fatal to a brand of consumer goods. Most advertising is in effect what Eldridge called “franchise building” in that it may take months or even years for its full influence to be felt.” Consequently, it can be seen through the research of Lambin and P. Doyle that in the long run, firms will achieve more benefit from advertising.⁵

In contrast to D. Simester et al., Lambin and P. Doyle’s results above, D. Clark’s finding was consistent with the hypothesis that advertising only has short-term effects on sales. That is, the evidence concluded that the cumulative effect of advertising on sales lasts for only months rather than years. In his paper, he sought the answer to the question of how the firms should spend on advertising. Specifically, he tried to observe the duration of cumulative advertising effects on sales by using various econometric models and summarize previous papers with similar topic. He ended up by claiming that: “The duration intervals derived from the annual models are too long. If one considers the monthly, bimonthly, and quarterly results to be most likely to be free of data interval bias, the duration of cumulative advertising effect on sales is between 3 and 15 months, thus this effect is a short-term (about a year or less) phenomenon.”⁶

Comanor and Wilson (1974) conducted a research which consisted of a profitability equation and an equation in which the advertising/sales ratio was influenced by profit margins and other variables. Their main findings also revealed that there was a positive and significant relationship between the rate of profit and the advertising/sales ratio,

³ Simester, D., Hu, Y., Brynjolfsson E., & Anderson E. T., 2006. Does Current Advertising Cause Future Sales? Evidence from Direct Mail Industry. MIT Sloan School Man, 222(1).

⁴ Lambin, J. J., 1969. Measuring the Profitability of Advertising: An Empirical Study. The Journal of Industrial Economics, 17(2), 86-103.

⁵ Doyle, P., 1968. Economic Aspects of Advertising: A Survey. The Economic Journal, 78(311), 570-602.

⁶ Clarke, D., 1976. Econometric Measurement of the Duration of Advertising Effect on Sales. Journal of Marketing Research, 13(4), 345-357.

which means advertising intensity continues to affect profitability. Furthermore, they found out that: “the heavy volume of advertising expenditures in some industries serves as an important barrier to new competition in the markets served by these industries.” That is to say, most of the authors insisted on statement that advertising causes increase in sales and profitability.

1.2 Advertising – Market share

It is widely accepted that market share, sales and profitability have a positive relationship since larger firms enjoy economies of scale benefits over the smaller rivals. M. Park’s argument⁷ also indicated that advertising is indeed a key strategic action that helps increasing market share. Take another research of Lambin (1976) for example, in his ambitious effort using various sales, quality, price and advertising data for 107 individual brands from 16 product classes and 8 different Western European countries, where the observations were mainly drawn from the 1960-70 period found out that brand advertising had a significant and positive effect on the brand’s current sales and market share.

B. Sharp et al. (2002) attempted to analyze the relationship between market share and churn rate, which is the annual percentage rate at which customers stop subscribing to a service or employees leave a job.⁸ They argued that “small brands have an inherently less stable customer base than do larger brands in their industry”. What’s more, “smaller brands not only have fewer customers but they are also more likely to lose them.” Their empirical scrutiny sifted through the data of five big brands which represent almost 90 per cent of the market share of the industry and reveals that bigger brands have a lower churn rate than smaller brands in the same market. Another research of them on car brands (Renault, Peugeot, Citroen, VW, Ford, Fiat, GM, Rover, Seat, Mercedes, Volvo, BMW, Lada, Alfa) and their market shares, the percentage of customers switching to another brand proved that decreasing market share results in increasing switching rates. In other words, the lower market share brands had much higher rates of clients switching away from them except for the special case of Mercedes. According to the research, the correlation between market share and switching rate was -0.75, which is a very high negative relationship. In short, it is beneficial for firms to increase market share by advertising in order to increase sales as well as profits.

1.3 Advertising: Raise barrier to entry, enhance monopolistic power

As mentioned above, advertising is an effective means of expanding firms’ market, foster increasing in demand for the advertised products. Gallup (1940) confirmed that advertising affects demand since it conveys information to consumers, with regard to the existence of sellers, price and quality of products and alters consumers’ “wants” or “tastes”. Also consider the effects of advertising on consumers’ cognition, the Gallup’s survey asked: “Do advertisements give you all the information you want about the products advertised?” and as a prove, fifty per cent of the people interviewed said “Yes”.⁹ Similarly, Robinson (1933) indicated: “The customer will be influenced by

⁷ Park, M., 2013. Advertising and Market Share Dynamics. B. Sc. Thesis. University of California: United States.

⁸ “Churn rate”. Oxford Dictionaries. Oxford University Press. Retrieved from <http://www.oxforddictionaries.com/definition/english/churn-rate>

⁹ Dameron, K., 1941. Advertising and the Consumer Movement . Journal of Marketing, 5(3), 234-247.

advertisement, which plays upon his mind with studied skill, and makes him prefer the goods of one producer to those of another because they are brought to his notice in a more pleasing and forceful manner.” In general, Robinson argued that advertising has strong anti-competitive consequences because it prevents entry and maintains monopoly power in the industry.¹⁶ Similar to Robinson’s opinion, Telser (1964) also denoted that advertising can help increase monopolistic power, which supports the competitive benefit of the advertised brands.¹⁰

Doraszelski and Markovich (2007), in order to examine whether advertising results in a sustainable competitive advantage, they created a dynamic model of advertising competition where firms repeatedly advertised, competed in the market and made entry or exit decisions. They pointed out that exit was induced and entry was deterred by over advertising.¹²

In the oligopoly competition, firms compete in advertising to gain customers’ attention and encourage them to buy their products. Sales response to advertising is said to be substantially higher if there is less competitive interference within a category.¹¹ Danaher et al. (2008) observed the pure effect of advertising on sales when they accounted for competitive interference. They said it could be even more influential if it was viewed in isolation of competitors’ advertising. When a brand’s competitor increases advertising, that brand also increase its advertising spending. Because as they stated: “The results show that competitive interference effects on sales are strong. When one or more competing brands advertise in the same week as the focal brand, the advertising elasticity diminishes for the focal brand. The decrease depends on the number of competing brands advertising in a particular week and their total advertising volume. The authors found out that having one more competitor advertise is often more harmful to a focal brand’s advertising effectiveness than if the current number of advertising brands increase their total advertising volume.” Their results also supported for the viewpoint of the chairman and CEO of Protect & Gamble – one of the worlds’ largest advertisers, Edwin L. Artzt: “Think of advertising and promotion as exercise and recreation. Advertising is exercise. It’s something you need and it provides long-term benefits, but it’s awfully easy to either cut or postpone because there’s no immediate penalty for not exercising. When you want your brand to be fit, it’s got to exercise regularly.” This explains why in order to enhance barrier to entry, brands are continuously increasing advertising expenditure over time.¹²

Like many other researchers who were eager to detect the impacts of advertising and profitability (R. Sherman & R. Tollison 1971, M. Hirschey 1982, S. Martin 1979, R. Miller 1969), Comanor and Wilson (1974), who are among these researchers, pointed out that advertising intensity continuously affects profitability by lifting up the barrier to entry to gain monopolistic power. They concluded that the heavy volume of advertising expenditures in some industries serves as an important barrier to new competition. However, it is also argued that, for big brands, who have already reached a ceiling where there are few potential recruits, advertising is used to keep old clients rather than to

¹⁰ Örs E., 2003. The Role of Advertising in Commercial Banking. B. Sc. Finance and Economics Department HEC School of Management, Paris.

¹¹ Danaher P., Bonfrer, A., Dhar S., 2008 . The Effect of Competitive Advertising Interference on Sales for Packaged Goods. *Journal of Marketing Research*, 45(2), 211-225.

¹² Doraszelski U., and Markovich S., 2007. Advertising Dynamics and Competitive Advantage . *The RAND Journal of Economics*, 38(3), 557-592.

attract new customers and increase sales.¹³ According to K. Bagwell (2005): “At the same time, beyond a critical sales volume, diminishing returns are inevitable, since additional advertising becomes less effective once the most responsive buyers are already reached.” Nevertheless, the increase in sales of small brands is obviously much lower than the big brands. Because in order to become a big brand, the smaller brand should spend a huge advertising expenditure to compete with their big rivals, which almost no firms is going to choose this risky option.

1.4 Product differentiation to brand loyalty

Regarding the effects of advertising on product differentiation as well as brand preference. Bain (1956) denoted that: “single most important basis of product differentiation in the consumer-good category is apparently advertising.” Chamberlin (1933) also specified that a firm can use advertising to further differentiate its product from those of its competitors. Product differentiating is generally considered as the main contribution to brand preference since consumers can see the product as unique or superior and distinguish that product from others. Consumers are always considered to be at the heart of the business. Any business organization’s foremost goal is to make consumers perceive about the brand. It is beneficial for the sellers because product differentiation creates a competitive advantage and makes the consumers remember the brand’s name, subsequently encourages buyers to repurchase in the future.

From the argument above, it can be said that product differentiating by advertising partially generates barrier to entry and brand loyalty which is profitable especially for large-scale firms. Comanor and Wilson (1974) explained: “High prevailing advertising levels then may constitute a barrier to entry, if they “reinforce the experience that consumers have with established products” so as to enhance brand loyalty and exacerbate the differential advertising costs that await new entrants. They stressed that a new (small-scale) entrant is at cost disadvantage relative to an established (large-scale) firm, if an advertising scale economy is present.”

1.5 Inelasticity to brand loyalty

Kaldor (1950), Bain (1956), Comanor and Wilson (1967) and Spence (1980) asserted that advertising campaign is used to create a certain position of the advertised good in consumer’s mind. Thus, advertising is a tool to create consumers’ inelasticity demand, brand loyalty and effective barriers to entry for new firms – which is beneficial for the existing firms in the market. Likewise, Krishnamurthi and Raj (1985) denoted that demand for a particular brand becomes significantly more inelastic as advertising is increased. With the same opinion, Jean Jacques Lambin (1976) in his research of various Western European countries investigated that increased advertising intensity results in less elastic consumer demand.

To test the sensitivity of consumers’ demand, C. Mela et al. (1997) examined the long term effects of advertising on consumers’ brand choice behavior. They investigated the long term effects of promotion compared to the effects of advertising. They used 8 ¼ years of panel data for a frequently purchased packaged good to solve the problem

¹³ East R., Wright M., and Vanhuele M., 2013. Consumer Behaviour: Applications in Marketing. Atlanta, Georgia: SAGE Publications.

whether consumers' responses to marketing mix variables, such as price change over a long period of time. They also tried to answer the question "if there are changes in consumers' elasticity due to the price change and advertising change, are these changes associated with changes in manufacturers' advertising and retailers' promotional policies?". The collected data included store environment and purchase history of more than 1500 households for 8 ¼ years for one frequently purchased consumer packaged good in one market. Their findings illustrates that consumers became more price and promotion sensitive over time because of reduced advertising and increased promotions. Specifically, they found two segments of loyal consumers (relatively inelastic or less price sensitive consumers) and non-loyal (relatively price sensitive consumers): the investigation showed that the size of the non-loyal segment has grown over time. That is to say, there was an increase in number of the consumers who are price and promotion sensitive over time. Using quarterly advertising and promotion policies of brands to support the purposes of the research, their results confirm that in the long run, advertising decreases consumers' price elasticity and promotions increases consumers' price and promotion elasticity. The effects were found to be significantly larger for the consumers of non-loyal group than for the consumers of loyal group. In other words, advertising is the better strategy than promotion to reduce consumers' sensitivity toward the change in price of the products. It is a good news for the firms since increasing promotion may lead to a more competitive environment and more costs for the firms, increasing advertising seems to be more rational and lower cost decision.¹⁴

1.6 Quality to brand loyalty

Also discuss about the connection between advertising and brand loyalty, Forsido (2012) created a research to examine antecedent factors that lead to brand loyalty in the Swedish Smartphone market to answer the problem statement of what factors determine brand loyalty in Smartphone. She collected 200 responses from an interview from Uppsala University, Uppsala central train and bus station and two big shopping centers in Uppsala. Sony Ericsson and Apple's customers were interviewed in the research, 100 respondents for each brand. After that, she quantified the relationship between dependent variable: the brand loyalty and the independent variables: customer satisfaction, perceived quality, brand experience, brand image, brand switching cost and product involvement. The result suggested that brand image which is mainly created by advertising is an essential factor to determine the brand loyalty in Apple but the only determinant factor for Sony Ericsson was customer satisfaction.¹⁵ So after all, beside the brand image, quality is also an important factor to satisfy and make consumers loyal to the brand.

Many studies have suggested that advertising only has impacts on short-term sales. In the long-term, sales are driven by many other factors, such as product quality.¹⁶ Nelson (1974)'s discussion suggested that demand elasticity depends on the range of alternative products or which quality information is available. To provide another point of view about quality under the persuasive view of advertising, Braithwaite (1928) found out that advertising shifts out a consumer's demand for the advertised product and result in the

¹⁴ Mela, C. F., Gupta, S., and Lehmann, D. R., 1997. The Long-Term Impact of Promotion and Advertising on Consumer Brand Choice Author(s): Source: Journal of Marketing Research, 34(2), 248-261.

¹⁵ Forsido, M. Z., 2012. Brand loyalty in Smartphone. M. Sc. Uppsala University: Sweden.

¹⁶ Bagwell, K., 2005. The Economic Analysis of Advertising. Columbia University, New York, U.S.A., Discussion Paper.

creation of “reputational monopolies”. In other words, advertising alters the consumer’s decision making as compared to those that reflect his “true” preferences. She stated that: “Advertisers maintain that their reputation is a guarantee of quality. For they say that it is not worth a manufacturer’s while to stake his name and spend his money on advertising an article of poor quality.” Consumers then may consider this logic and choose the advertised brands.

To investigate whether quality and advertising have positive relationship, M. Nichols’s research tested a hypothesis that advertising serves as a signal of higher quality using data from domestic and foreign automobile in the United States over the period 1985 – 1990. The study revealed that advertising does signal quality to imperfectly informed consumers. Even though television advertising is usually criticized for its lack of informational content and intent to persuade consumers, it was still very effective to reveal that large advertising outlays were being made and consequently that quality was high. The research also demonstrated that the positive advertising and quality relationship holds strongest when a model significantly improves in quality relative to the previous year’s model.¹⁷

Additionally, M. Nichols (1998) provided an empirical evidence regarding advertising’s role as a source of information and signal of quality in the United States market for automobiles. The investigation suggested that advertising both provides information and signals quality to imperfectly informed customers.

1.7 Emotion to sales

P. Danaher et al. (2008) claimed that to compete through advertising, advertising creative and message are effective. He also said that advertisement’ content was the fundamental element which influences consumers’ propensity to buy the advertised products. M. Bertrand et al. (2009) proved this argument by their evidence from a consumer credit marketing field experiment. In their study, they used a large-scale direct mail field experiment to study the effects of advertising content on real decisions, involving non-negligible sums, among experienced decision makers. A consumer in lender in South Africa randomized advertising content and the interest rate in actual offers to 53,000 former clients. A finding from their results demonstrated that even non-informative advertising might play a large role in real consumer decisions. They concluded: “Theories of advertising, and prior studies on framing, cues, and product presentation, suggest that advertising content can have important effect on consumer choice. Yet there is remarkably little field evidence on how much, and what types, of advertising content affect demand.”

Many studies have proved that there is a positive relationship between emotion responses to advertising and sales (Mehta and Purvis 2006, McDuff, et al. 2013).¹⁸ Since human emotions were play an important role in buyers’ decision making (Le Doux 2002, Damasio 1994), analyzing the response of people to advertising is crucial for firms’ strategy. D. McDuff et al. performed a large-scale experiment to answer the question whether people’s emotions caused by advertising drive sales. They performed traditional

¹⁷ Nichols, M. W., 1998. Advertising and Quality in the U. S. Market for Automobiles. *Southern Economic Journal*, 64(4), 922-939.

¹⁸ McDuff, D., Kaliouby, R. E., Kodra, E., and Languinet L., 2013. Do emotions in advertising drive sales? Use of facial coding to understand the relationship between ads and sales effectiveness. ESOMAR congress.

surveys which the respondents watched the advertisement and then answered a number of questions that capture aspects of the respondents' cognitive assessment of it, such as awareness of the brand, persuasion of a message, and purchase intent. They collected facial emotion responses to the advertisements for which they also had sales data. Over 11,000 face videos from 1,135 panelists who watched 115 ads of 70 brands in the chocolate, chewing gum, rice and pet care categories in the United States, United Kingdom, France and Germany. Facial expressions were considered as the language of emotion (Darwin, Ekman, and Prodger 2002), so measuring facial activity was a useful method. They investigated that the reaction of facial coding to advertisement can provide discriminative value for driving sales effectiveness.

In recent years, researchers are getting more interested in the emotional aspects of consumer behavior (Holbrook and Hirschman 1982, Holbrook and Batra 1987). Holbrook and Batra pursued the emerging interest in emotional aspects of consumer behavior, advocates an overview of consumption-related emotions and focused on the role of emotions in mediating the advertising's effects.¹⁹ They collected sample of advertisements included 72 television commercials for brands and linked together ad contents, emotional responses, attitude toward the ad, attitude toward the brand using some plausible and familiar dimensions of emotional responses: pleasure, arousal and domination. They showed good inter-judge and inter-item reliabilities for these as well as for the scales, items and indices underlying the content factors and emotional dimensions. Their work examined the manner in which intervening emotional reactions mediate the relationship between the content of advertisement and attitude toward the advertisement or brand. The empirical part of their study demonstrates its usefulness in assessing the role of emotions as mediators of consumer responses to advertising. According to their results, it can be concluded that through the advertising contents, firms may influences attitude of consumers toward the brand and increase consumers' attention to the brand.

As well as many studies above, to observe the effects of emotion content of advertisements, R. Hill and M. Mazis (1986) conducted a research to determine whether effective measures that assess emotional responses to advertisements are needed to measure the impact of advertising. The research took place at a private university in the United States where students voluntarily participated in. After the advertisements (at the same length) were shown and evaluated, the respondents were asked to provide their attitudes toward each brand of cameras, telephone services and banks. The authors measured the attitude toward the advertisements by taking four sets of bipolar adjective scales which have the overall evaluation of good/ bad, like/ dislike, positive/ negative; emotional: pleasant/ unpleasant, sociable/ unsociable, nice/ awful; savory: sensitive/ insensitive, interesting/ boring, tasteful/ tasteless; authoritative: useful/ useless; important/ unimportant, intelligent/ unintelligent. The attitude scales were taken from scientific work of Osgood, Tannenbaum & Suci (1957) and Batra (1984). Like the research of Golden and Johnson (1983) which suggested that factual and emotional advertisements produce differential communication responses, this investigation's results also indicated that for all the advertising treatments, there were more positive effect opinions when the emotional advertisements were shown. In contrast to the results of the emotional advertisements, factual advertisements did not gain many positive responses. Furthermore, as what the researchers predicted, respondents even rated the emotional

¹⁹ Holbrook, M. B., and Batra R.. Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising. *Journal of Consumer Research*, 14(3), 404-420.

advertisements as being higher on the sensual factor (beautiful, beautiful, gentle, sensitive etc.).²⁰ Overall, it is valuable for firms to observe the trend of consumers' emotion to create precise target groups and effective advertisements.

²⁰ Hill, R. P., and Mazis M. B., 1986. Measuring Emotional Responses to Advertising. *Advances in Consumer Research* Volume 13, eds. Richard J. Lutz, Provo, UT : Association for Consumer Research, Pages: 164-169.

2. Empirical part

Advertising decisions cannot be taken in isolation. Advertising is just one of various highly correlated factors that influence firms' sales, making it difficult to identify the effect of advertising independently by any simple models. In reality, it is very complicated to measure such effects of advertising because advertising decisions are endogenous and dynamic. Thus, the effects of advertising varies and are usually confused by many other intervening factors. In addition, the attitude of individuals are different so it is impossible to find a concrete answer for this problem. However, the drawbacks are relatively well-recognized so people may use some methods to address them and it is still possible to see the important role of advertising in the firms' systems by observing the data and the consumers' reaction to brands and advertising.

It was said by B. Sharp et al. (2002) that: "Larger firms might enjoy lower advertising rates and better media placements because they are more valuable to advertising agencies and the media and are hence given favourable treatment. The same can apply to their relationships with distribution channels – big companies are big because their brands sell and resellers need less enticement to stock such brands. It is also argued that there is a "threshold effect" for advertising, whereby those that advertise on a small scale find it much harder to acquire or maintain brand awareness (e.g., Rao & Miller 1975). Consumers tend to notice brands that they use (Ehrenberg 1974), so ads for larger brands with more users will be noticed more by the public, increasing their effectiveness."²¹ Therefore, small and medium brands are unlikely to spend on a huge expenditure of advertising. As Kaldor and Silverman pointed out: "most goods and services carry some advertising but large scale advertising is confined to a narrower range of branded goods". Take both the British and American cigarette industries as an example, the domination of a few large firms has been preserved strongly because of the powerful advertising.⁵ Hence, this paper mainly describes the advertising decisions of big brands.

The empirical part is divided into five sections. In the first part, the global survey from Nielsen was collected. This survey indicates the consumer trust in each form of advertising in 2007 and 2013. It is necessary to do a research about clients' trust since it plays the main role to form brand loyalty. Through this part, it was partially proven that the people who believe in each form of advertising is increasing over time. The second part is about the survey of people's reaction to Youtube advertisements which took place in Indonesia. This part shows the response of people and their willingness to buy after watching each advertisement. The third part will provide a survey which examines the effects of Vinamilk's advertising on their consumers' purchasing behavior. The fourth part and the fifth part aim at comparing the trend of advertising cost, revenues, net income and advertising cost/ revenues of the big brands which compete each other. Specifically, the fourth part compares the two big competitors in carbonated soft drink market and the fifth part compares the groups of rivals in electronics market: Apple versus Samsung in mobile market and Apple versus Microsoft in operating system market. The general purpose of this practical approach is to verify the effects of

²¹ Sharp, B., Riebe, E., Dawes, J., and Danenberg N., 2002. A Marketing Economy of Scale – Big Brands Lose Less of their Customer Base than Small Brands. Marketing Bulletin, 13, Research Note 2.

advertising on consumers which have increased notably and it could be one of the reasons why firms are competing in advertising to gain more customers and boost revenues, net income. That is, it is worthy for firms (which in this case are the big brands) to use advertising as a valuable but low-cost tool (compared to their net income and revenues) to achieve their benefits.

2.1 Consumer trust

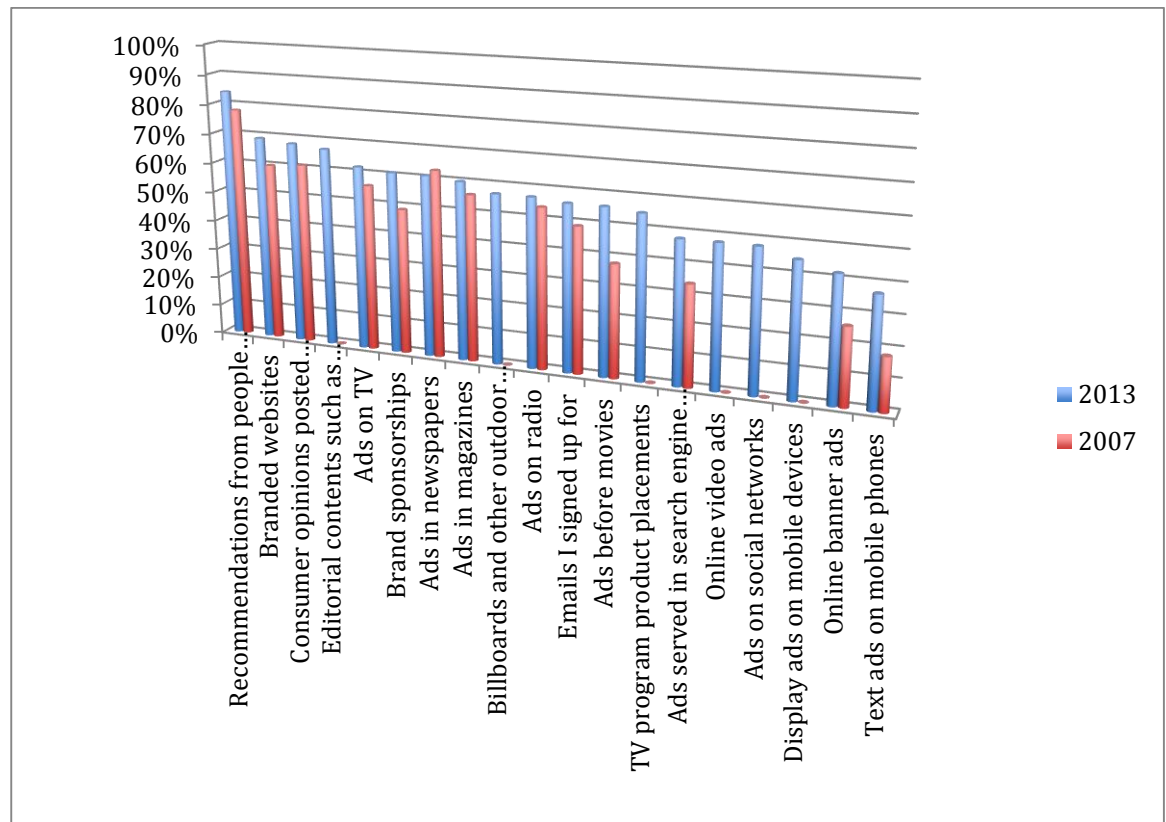
First of all, in this part, the impact of each type of advertising people's trust will be analyzed. Of course, each form of advertising brings different impression to viewers and reaches different number of people. As a consequence, firms will choose suitable type of advertising to influence people's mind. The data was collected from the consumer survey trust of Nielsen N. V., which is an information and measurement company or so called global marketing and advertising firm. Nielsen operates in over 100 countries around the world with 40,000 employees and total revenues of 5.6 billion USD in 2013. The company provides media and marketing information, analytics, manufacturer and retailer about what and where consumers buy, read, watch and listen. In other words, Nielsen is a global leader in information and measurement firm that allows business organizations to understand consumers and consumer behavior. Nielsen measures and tracks what consumers watch (programs and advertising) and what consumers buy (categories, brands, products) globally and locally. To look at which forms of advertising are the most reliable in people's point of view, Nielsen reported a survey which polled 29,000 internet respondents from 58 countries in the world which called "Global Trust in Advertising and Brand Messages", comparing people's trust in advertising in 2007 and 2013. My intention is to observe the increase or decrease in number of people who believe each type of advertising.

Overall, it shows that more consumers trusted advertising compared to six years before. According to the research, word-of-mouth – others' recommendation is considered to be the most reliable, which increased from 78% to 84%. According to the statistics and research of Gunelius (2014), word-of-mouth affects 50% purchase decisions. Moreover, word-of-mouth marketing had massive reach, 500,000 conversations about a brand can be generated by 1,000 customers. For that reason, providing high quality goods for clients is the number one target of firms to increase sales. The second most reliable information position went to "branded websites", which increased by 9% (from 60% to 69%) in 2013. As stated by ACE Group (2011), branded websites usually create a safe feeling for customers because of their popularity and reputation. Consumer opinions posted online and editorial content such as newspaper articles earned almost the same percentage: 68%, 67% respectively. This result is similar to the research of Gunelius (2014), which reported that 81% of consumers were influenced by their friends' social media posts. TV ads – as the fifth position, gained 7% more than in 2007. The number of people watching TV is always the highest compared to other media channels because it conveys both image and sound so the brand will reach more people, as claimed by Marketing Box (2010). In general, highest percentage of people trust information from recommendation from people that the consumers know, branded websites, consumer opinions posted online and editorial content such as newspaper articles. However, many other types of advertisements are gaining more percentage of trust. Text ads on mobile phones had the highest positive percentage change in number of consumers with 19%. This may be explained that the previous firms who tried to reach customers have well performed and gained trust of many people so people are less suspicious about mobile phones' text advertisements. Ads before movie also gained high percentage of trust, which boosted from 38% to 56%. Online banner ads, ads served in search engine results and brand sponsorships earned the percentage change of 16%, 14%, 12% respectively. Even though online banner ads and text ads on mobile phones are the least trusted categories, they seem to gradually gain more percentage compared to the others.

To conclude, word-of-mouth plays the most important role to affect customers' trust, therefore, quality of the products is the most influential factor that determine sales of firms.

Figure 1. Global trust in advertising and brand messages

To what extent do you trust the following forms of advertising? – Global average – Percent completely/ somewhat trust.



Source: Nielsen Global Survey of Trust in Advertising. Q3 2007 and Q1 2013.

2.2 Indonesian survey – Reaction to Youtube ads

According to Internet Live Stats (2014), Indonesia ranked the 13th in the world in terms of the number of internet users and the annual average growth of internet users in this country is very high (9%). What's more, as we usually observe, marketers and advertisers always use social networking sites such as Facebook or Youtube to reach potential consumers. Youtube is known as the third popular website in the world according to Alexa (2015) and advertising is Youtube's main source of income. Unlike the previous survey, this survey was designed to test the consumers' reaction Youtube ads, it focuses on how people response to each advertisement. The survey of 2,354 respondents was conducted for 3 hours in 2014 on the web-platform Jakpat. Most of the respondents (87.3%) stated that they often accessed to Youtube.

The survey shows that approximately 84.79% of the respondents streamed video via Youtube. It revealed that 66.33% of the respondents chose the statement "When the skip button appear, I immediately skip it". There were just a few people choose to watch the ad first without clicking the skip button then watch the video (3.21% with 64 people). Only 23 people (1.15%) closed the window or clicked back to find similar videos without ads. The rest of 585 people (29.31%) watched few first seconds after the skip button appears to see if the ad was interesting or not, if not, they skipped it. This survey suggests the fact that most of the respondents did not like the ads appear on the videos on

Youtube. However, 29.31% is still a high percentage of people who care about the ad if it grabs their attention.

The results are very similar to the case of the ad banners. A majority of the respondents (68.34%) immediately closed the banner because they found it really annoying. There were 545 people (27.30%) left the banner if the duration of the video was short and closed it if the duration was long; only 87 people (4.36%) did not close the banner regardless the duration of the video.

The content of the advertisement is also important to catch the attention of the viewers. 38.13% of the respondents only paid attention to the funny ads; 20.59% only watched the ads which were from their products that they needed, 15.28% of them paid attention to the touching stories of the ads and 13.93% of those paid attention to other types of advertisement.

Moreover, by measuring 19 forms of paid, earned and owned ad formats, the research also investigated that the “humor” style of advertising works best as 47% of the respondents saying it resonated the most. The next style was “real life situation” which had 46% of the respondents. “Family oriented” earned 38%. Pets and animals, celebrities and athletes scored 18%, 12% and 8% respectively. Therefore, it is proven that advertisement’s content plays as a main role to attract people’s attention.

Answering the question whether individuals want to try the advertised products after watching the ads by rating from 1 to 5 (1: do not want to try → 5: really want to try), the research shows that only 7.17% of them really want to try the product. The percentage of people who did not want to try is almost twice as much as the number of the people who really want to try the product (16.41%). Although the number of the respondents who had more propensity not to try the product (21.26%) is a bit higher than that of the respondents who had more propensity to try the products (18.57%), the total percentage of people who were indifferent between willing to try and not willing to try the product is very high, which is 76.42%. It means that advertising surely influences on people’s decision making whether to try the products. Even if it does not completely increase the number of people who are really willing to buy the product, it somehow distorts their mind to have more tendency of purchasing the product.

2.3 Vinamilk’s consumer survey

Most of Vietnamese consumers are very familiar with Vinamilk. It is the biggest dairy company in Vietnam. Based on UNDP (2007), Vinamilk is the 15th largest company in Vietnam report. In 2010, Vinamilk became the first company in Vietnam to be included in the Forbes Asia’s Best Under A Billion list that highlights 200 top-performing small and medium sized companies. In this work, I attempted to analyze the effects of Vinamilk’s advertising to consumers’ purchasing propensity by conducting a survey, using Likert scale and linear regression model.

To find out more details about how advertising affects consumers’ buying behavior, especially in one specific brand, a survey was implemented by collecting opinions from Vinamilk’s customers. There are two main hypotheses, the first research hypothesis is about the effective elements of advertising channels that affects decision making of consumers: the various forms of advertising, the rational intensity and time of advertising

do influence buyers' decision. The second research hypothesis argues that the advertising messages' contents affects consumers' purchasing decision. There are three types of advertising message which are considered in the survey: short, brief, easy-to-understand and easy-to-store-in-mind message, message which guarantees the quality of the product and sounds reliable, message which brings friendly and familiar feeling to consumers and message, and lively message.

To test the validity of the assumptions above, the relationship between the factors in the hypothesis was measured. The methodology of this quantitative research is to conduct a questionnaire survey, the respondents were reviewed directly and through email. Firstly, develop a questionnaire which aim at investigating respondents' reaction, opinion to the brand's advertisement, product and the elements which encourage them to buy the product. Secondly, the 245 respondents were asked to fill in the questionnaire. Thirdly, by consulting previous experts' research papers and articles, the questionnaire was adjusted and many insignificant independent variables were omitted. Then, the data was arranged for the convenience of the research process. Finally, the data was put in process to run the regression. The first three steps were repeated several times until the questionnaire was found to be complete and reliable enough for the realistic purpose of the research.

In order to compare the effectiveness of advertising to other factors, I tested the third problem that the elements of the store system: clear, neat, elegant stores, enthusiastic staff, exclusiveness of the stores, reliability of the price and quantity and convenient location of the stores have impacts on buying decision of buyers. Besides, I also tested whether the elements of packaging: elegant, aesthetic design and fresh-looking package have more influence than the elements of advertising.

2.3.1 Developing questionnaire survey

The quantitative measurement tool in this study is the five-point Likert scale. Likert scale was used in the researches that applied the Ajzen's planned behavior²². According to Simply Psychology's definition, Likert scale is a widely used psychometric scale to measure attitudes directly. Likert (1932) built a scale which measures individuals' attitudes and opinions by asking the interviewed people to respond to a series of statements about a topic, in terms of the extent to which they agree with them, and so tapping into the cognitive and affective components of attitudes. This ordinal scale measures the levels of agreement or disagreement of the respondents using fixed choice response formats. The strength/ intensity of experience is assumed to be linear and makes the assumption that attitudes can be measured. In this questionnaire, to measure which extent the respondents agree to the statement, the five-point (the Likert scale requires an odd number, usually five or seven point) scale was used in final form to allow the respondents express how much they agree or disagree with each particular statement on a continuum from strongly disagree to strongly agree: 1. Strongly disagree, 2. Disagree, 3. Indifferent, 4. Agree, 5. Strongly agree. The second Likert scale in the research is used to measure the frequency: 1. Never, 2. Rarely, 3. Sometimes, 4. Very often, 5. Always.

²² Ajzen, I., 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

To set up a range of questions, many questionnaire surveys were taken as references which were used to investigate the planned behavior. The personal information collected is useful since it provides endogenous demographic factors which may affect consumers' decision. In this research, I have focused on three factors: age, sex and job. Through the research, it is realized that these factors also have significant impacts on buying process because each age reacts differently to advertising and so do sex and job.

2.3.2 Data

The table shows that the demographic variables have also significant impacts on purchasing behavior of consumers. The percentage of female (66.1%) is as twice as much as the percentage of male (33.9%). Therefore, it is reasonable for firms to collect women's viewpoint as a fundamental step. A majority of the interviewed respondents are from 18 to 24 (58.8%) and from 25 to 34 (28.2%). These are the targeted groups that the company wants to aim at. Despite the fact that in many cases, women buy milk for their family members like babies or children but not for themselves, these age groups are definitely have the direct role on sales of the company since they are the ones who decide to buy the product or not. Hence, defining the age groups which are most affected by the product's advertising is necessary for the firms.

Table 1. Demographic structure of the respondents

	Scale	Number of people	Percentage (%)
Sex	Male	83	33.9
	Female	162	66.1
Total	Male, Female	245	100
Age	<18	13	5.3
	18-24	144	58.8
	25-34	69	28.2
	35-45	18	7.3
	>45	1	0.4
Total	Male, Female	245	100
Job	Student	148	60.4
	Office staff	56	22.9
	Worker	6	2.4
	Housewife	12	4.9
	Retailer	18	7.3
	Other	5	2.0
Total	Male, Female	245	100

Source: own calculations.

The results look like many other surveys and as expected, people mostly know about the product through TV advertisements (35.7%). That explains why big brands spend a huge money per day for just a-few-minute or even a-few-second advertisement on TV because it is the fastest way to reach a great number of new customers and remind customers. People who know about Vinamilk through friends' recommendation take up to 16.8%. It somehow tells the firms that they should also focus on quality since after experiencing and being satisfied with the product, people may recommend others to use

the product. This is even thought to be more reliable because many previous surveys, such as the Nielsen's survey above, revealed that people mostly buy products which are suggested by family or friends. In general, Vinamilk has various ways of advertising to attract its potential customers especially via TV, banners, posters and outdoor advertising, which make them become the most famous beverage brand in the whole nation. Spending on advertising is not only a wise investment of Vinamilk but also powerful point of this company to strengthen and expand its brand name.

Through what the advertisements convey, most of the consumers recognized the brand as a clear and fresh milk. The other messages took up much lower percentage (100% natural milk: 12.2%, feel like in heaven: 8.2%, feel cool and great: 4.9%, other: 4.1%). In fact, the exact message of Vinamilk is clear and fresh milk. Thus, who saw the ad somewhere and remember the message would choose the first option. As what it is shown, a majority of people could recognize which message belongs to Vinamilk. Advertising is proven to contribute to the expansion of the brand's name as only small percentage of people confused Vinamilk's message with other well-known milk brands' messages which are also familiar to them such as Ba Vi, Dutch Lady and Moc Chau. It is a proof that advertising message and content may also lead to product differentiation for the reason that consumers can distinguish Vinamilk to other milk brands.

Table 2. Through which advertising channel the respondents heard about the brand

Advertising channels	Number of people	Percentage (%)
TV	220	35.7
Radio	26	4.2
Newspaper	48	7.8
Banners, posters	86	14
Friends	104	16.8
Websites	28	4.5
Retailers	37	6.0
Out-door advertising	55	8.9
Other	13	2.1
Total	245	100

Source: own calculations.

About 41.4% of the respondents chose to buy the product made by Vinamilk because they believed Vinamilk's advertising message that the company brings clear and fresh milk to customers. The survey shows that 27.9% choose Vinamilk because they wanted to try and 15% choose Vinamilk because of the suggestions from friends. It can

be seen again from here that the company should take quality parallel with advertisements to maintain the reliability of previous buyers so that after the trial, those buyers will be more willing to buy Vinamilk's product and they will tend to share their experience with other potential customers. Then the firm may gain reliability of the new customers later on. Although most of the people who were aware of the brand's advertisement and its message and chose to buy the product because they believed the message in the advertisement, the impressiveness of this brand's advertisements did not have much influence on people's decision (12.2%).

Table 3. Impression of Vinamilk

	Number of people	Percentage (%)
Clear and fresh milk	173	70.6
100% natural milk	30	12.2
Feel cool and great	12	4.9
Feel like in heaven	20	8.2
Other	10	4.1
Total	245	100

Source: own calculations.

The frequency of buying mostly varies from sometimes to very often, people who rarely buy Vinamilk's good take up only 11.8%. The largest proportion belongs to people who often consume the product (31%) and the second largest belongs to people who almost often consume the product (22%).

Table 4. Reasons to buy

	Number of people	Percentage (%)
Because I believe that the milk is clear and fresh (as in advertisements)	151	41.4
Because of the impressive advertisement	44	12.1
Because I want to try	102	27.9
Because of the suggestions from friends	56	15.3
Other	12	3.3
Total	245	100

Source: own calculations.

The frequency of consuming the product and the quantity bought which are found out in the survey (Table 6, 7) are considered to be very high because of the fact that the average price of all milk brands in Vietnam is costly for most of consumers (0.4 USD/ a box of 200ml while average income of Vietnamese workers is around 140 USD as stated by BBC Vietnam 2014). The cause of this high milk price in the market is due to the detrimental climate and environment leading to the difficulty of breeding dairy cows (Dairy Vietnam 2004).

Table 5. Frequency of buying

	Number of people	Percentage (%)
Very often	43	17.6
Often	76	31
Almost often	54	22
Sometimes	43	17.6
Rarely	29	11.8
Total	245	100

Source: own calculations.

Beside the frequency of buying, the largest proportion is of people buying a pack of 4 boxes each time (56.3%). People who buy a carton box of 24 boxes each time account for 24.1%. Buying separate boxes takes up 16.7%. Just a few people buying more than a carton box of 24 boxes: only 2.9% out of 245 respondents.

Table 6. Quantity bought each time

Quantity bought each time	Number of people	Percentage (%)
Separate box(es)	41	16.7
A pack of 4 boxes	138	56.3
A carton box (24 boxes)	59	24.1
More than a carton box	7	2.9
Total	245	100

Source: own calculations.

It is necessary to distinguish between the consumers who buy the product and the consumers who actually use or consume the product. Table 1 includes only consumers who buy the product whereas Table 7 shows the number of people who actually consume the good, they may be both buyer and consumer at the same time or some of them may buy the product for others (i.e. for their children or other family members). The actual consumers come from the age group of 18 to 24 – almost half of the respondents (49.4%) and lower than 18 years old (33.9%). It partly explains why Vinamilk usually aims at catching kids or teenagers' attention by creating animated, colorful and exciting advertisements since kids and teenagers are the most dominant factor that make their parents (who are mostly at the age group of 18 to 24 and 25 to 45) pay for the good. People who directly make purchasing decision are at parents' age groups of 18 to 24 and 25 to 34: 58.8% and 28.2% respectively while their actual consumption is a lower in group of 18 to 25 (49.4% as mentioned) and much less in group of 25 to 34: 15.5%; under 18 years old individuals do not purchase much (only 5.3%) even though they are of the main consumers (33.9%). This is because that at the age of 18 to 24, most of the group are students or teenagers so their milk consumption is still very high and consumers under 18 years old are children, they cannot afford to buy the product. People at the age of over 45 rarely shop for milk (only three people out of 245 – which is 1.2% of all the respondents) and consume it (just person – 0.4%). This result explains why Vinamilk has never had any advertising plan to attract this group.

Table 7. Age of respondents who bought Vinamilk's product

Age of consumers	Number of people	Percentage (%)
<18	83	33.9
18-24	121	49.4
25-45	38	15.5
>45	3	1.2
Total	245	100

Source: own calculations.

The number of total percentage of people who are satisfied and very satisfied with the product is very high: 33.5% and 29.8% respectively while the total percentage of people who are unsatisfied and very unsatisfied with the product is relatively small: 11.8% and 2.4% respectively. Moreover, most of the people who are unsatisfied and very satisfied responded that the price is high compared to their income, it is not the quality which made them disappointed. Hence, by some means it is indicated that Vinamilk managers do take into consideration the quality of their product along with advertising to make consumers repurchase in the future. Nonetheless, the percentage of people who satisfied and very satisfied still shows a great success of Vinamilk, it reveals that Vinamilk has excellently gain consumers' trust in the quality, which is a basic step for their business development to survive in such a high competitive beverage market in Vietnam.

Table 8. Level of satisfaction

Level of satisfaction	Number of people	Percentage (%)
Very unsatisfied	6	2.4
Unsatisfied	29	11.8
Indifferent	55	22.4
Satisfied	82	33.5
Very satisfied	73	29.8
Total	245	100

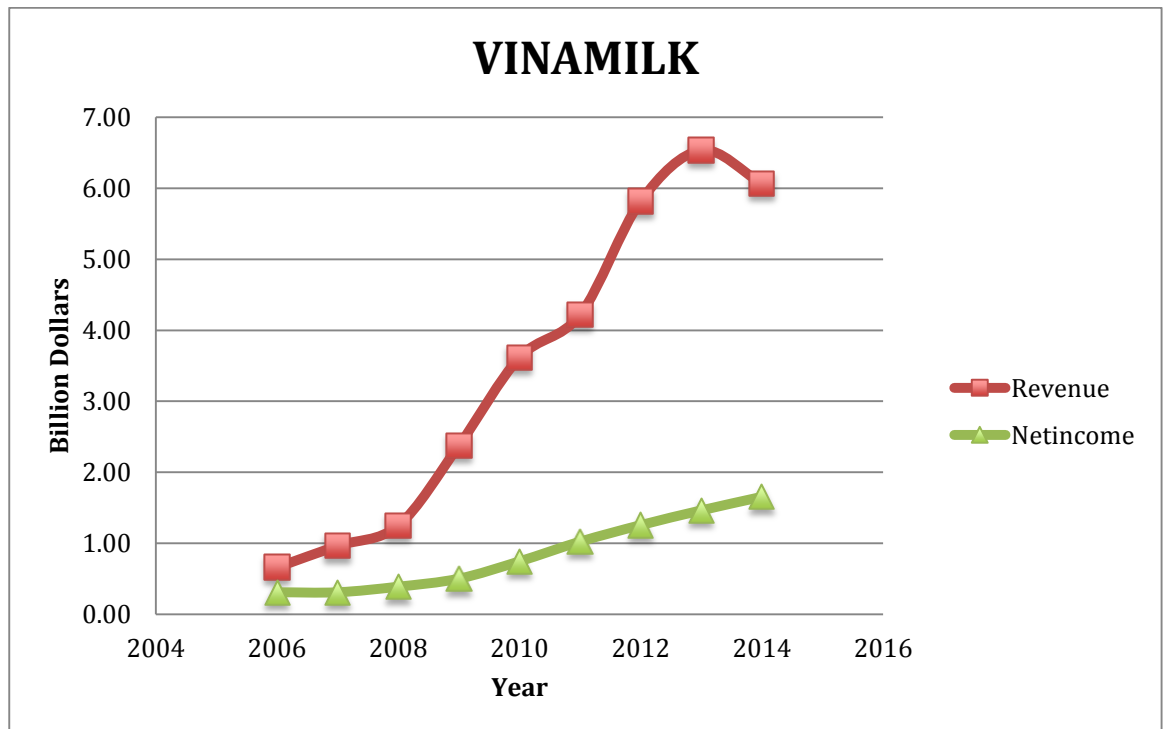
Source: own calculations.

From the results above, it is shown that Tran Bao Minh – who is the most well-known marketing manager in Vietnam and so-called “marketing witch” has made a wise decision to add unique advertising content which stimulate the demand growth of Vinamilks' product. Having worked for Vinamilk for 3 years, he has contributed a lot to the improvement of this company. Big cities in Vietnam are usually considered to be highly polluted, therefore the production of food and beverage is also affected. Moreover, due to the high domestic milk price, some Vietnamese business organizations imported Chinese milk for lower price. Unfortunately, many babies died because of the Chinese milk because it contains poisonous substance – Melamine.²³ While trying to get rid of the

²³ Thu, N., 2008. Enterprises are going crazy because of Melamine. Retrieved from <http://kinhdoanh.vnexpress.net/tin-tuc/vi-mo/doanh-nghiep-sua-dien-dao-vi-melamine-2694142.html>

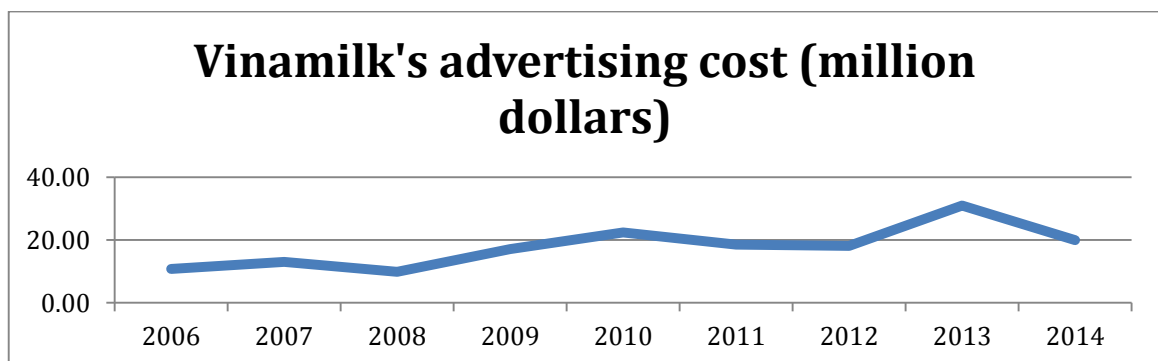
poisonous milk, food and beverage investigators then found out there are some low-quality milk product from Vietnamese brands. Mothers were getting more hesitated to buy milk from any brand. By understanding this controversial issue in milk market and consumer psychology, Tran Bao Minh has attached a “clean milk” message as a guarantee for parents – which has a great influence consumers’ purchasing behavior and keep Vinamilk as the most valuable milk brand and highest milk market share in Vietnam (45.5%).²⁴

Figure 2. Vinamilk: Advertising cost, revenues and net income trend



Source of data: Vinamilk’s financial statements

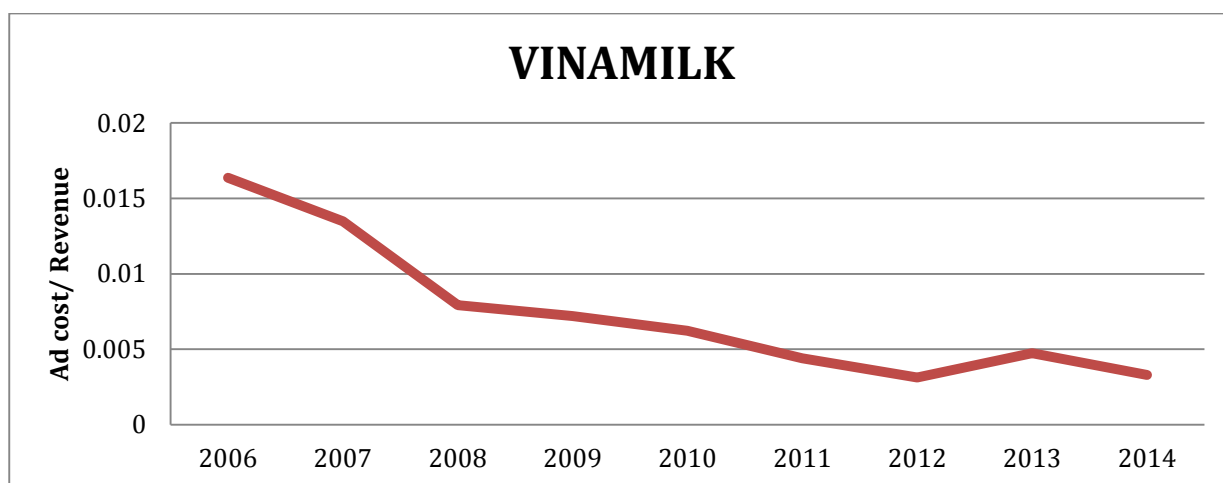
Figure 3. Vinamilk: Advertising cost



Source of data: Vinamilk’s financial statement

²⁴ Thai, H., 2015. “Marketing witch” Tran Bao Minh: The adventure from ant to elephant. Retrieved from <http://tinnhanhchungkhoan.vn/doanh-nhan/phu-thuy-marketing-tran-bao-minh-phieu-luu-voi-kien-va-voi-111837.html>

Figure 4. Vinamilk: Advertising cost/revenues trend



Source of data: Vinamilk's financial statements

The graphs above illustrates the annual revenues, net income and advertising cost of Vinamilk. It can be seen here that although the advertising cost has slightly increased, the revenue rose dramatically as it has a very steep trend line, and the net income also gradually went up markedly. From 2013 to 2014, Vinamilk slightly decreased the advertising cost from 0.03 to 0.02 billion dollars and the revenue of this company also decreased from 6.53 to 6.07. Overall, the steady decline in advertising cost/ sales ratio and the dramatic increase in revenue, constant increase in net income of Vinamilk revealed that its advertising spending and strategy are rational.

2.3.3 Hypothesis testing

2.3.3.1 Testing the hypothesis of advertising factors

First of all, advertising factors (forms of advertising and advertising messages) are expected to be more worthy to invest than the factors of packaging and store system. To test the hypothesis based on the results from the questionnaire and avoid heteroskedasticity, robust regression was used. The reliability of the variables are determined by Cronbach's alpha which is developed by Lee Cronbach (1951) based on Kuder Richardson Formula 20.²⁵

The research's Cronbach alpha result (0.881) shows that the five variables: decision to buy, forms of advertising, advertising message, package designing and the store system of Vinamilk are reliable. The five independent variables are expected to have significant affect to the dependent variable decision to buy of customers.

²⁵ Revelle, W., Zinbarg, R., 2009. Coefficients Alpha, Beta, Omega, and the glb: Comments on Sijtsma. *Psychometrika*, 74 (1), 145–154.

Both Tolerance and Variance Inflation Factor (VIF) were used to test the multi-collinearity of the variables in the regression model. The VIFs here are less than 10 so there is no evidence of multi-collinearity.

Independent variable	Standardized coefficient	t-statistic	p-value	Tolerance	VIF
Constant	0.262	4.318	0.000		
Forms of advertising	0.379	5.310	0.000	0.183	5.465
Advertising message	0.322	2.030	0.000	0.222	4.504
Packaging design	0.132	4.342	0.043	0.170	5.871
Store system	0.094	1.216	0.225	0.157	0.357

Source: own calculations.

Dependent variable: Decision to buy, Adjusted R-squared = 0.776, F-statistic = 207.727, p= 0.000

R-squared = 0.776 means that the four independent variables: forms of advertising, advertising message, package designing and store system explained 77.6% variation of the decision to buy. At 5% significant level, except for the store system of Vinamilk, the other regression coefficients are statistically significant. The estimated regression equation is given as follows:

Theoretical model:

$$\begin{aligned}
 \text{Decision to buy}_i &= \beta_0 + \beta_1 \text{forms of advertising}_i + \beta_2 \text{advertising message}_i \\
 &+ \beta_3 \text{packaging design}_i + \beta_4 \text{store system}_i + u_i \\
 i &= 1, 2, \dots, 245
 \end{aligned}$$

Estimated model:

$$\begin{aligned}
 \widehat{\text{Decision to buy}} &= 0.262 + 0.379 \text{forms of advertising} + 0.322 \text{advertising message} \\
 &+ 0.132 \text{packaging design} + 0.094 \text{store system}
 \end{aligned}$$

In accordance with the equation above, it was found out that the forms of advertising is the most influential variable to the decision to buy with the highest $\widehat{\beta}_1 = 0.379$, (p-value = 0) which tells that if people grade using various forms of advertising as an effective way by one rank higher, it will increase the decision to buy by 0.379. The second most influential variable is advertising message with $\widehat{\beta}_2 = 0.322$ (p-value = 0). Similarly, if they grade the advertising message by one rank higher, it will increase their propensity to buy by 0.322. The third significant variable is packaging design with $\widehat{\beta}_3 = 0.132$ (p-value = 0.043), this tells us that if people rank the packaging higher than one grade, it will increase their tendency to purchase by 0.043. The store system of Vinamilk is not statistically significant with the lowest $\widehat{\beta}_4 = 0.094$ (p-value = 0.225). Therefore, we reject the hypothesis that the store system has influence on purchasing process of

consumers. Forms of advertising and advertising messages had more influence on buying behavior of consumers than packaging design. Therefore, the firm should focus more on advertising factors (forms of advertising and advertising message) than on packaging design or store system. In other words, advertising has more impacts on consumers' reaction than the other two variables.

		Cronbach's alpha	Number of variables
Influential factors	Forms of advertising	0.861	3
	Advertising message	0.914	4
	Store system	0.920	5
	Packaging design	0.878	2

Sources: own calculations.

The Cronbach's alpha values above shows that the variables used for testing the hypothesis are reliable with the lowest Cronbach's alpha value = 0.861 (forms of advertising) and the highest Cronbach's alpha value = 0.920 (advertising message).

2.3.3.2 Testing the hypothesis of advertising channels

	Standardized coefficient	t-statistic	p-value	Tolerance	VIF
Constant	0.325	5.805	0.000		
The diversity of advertising forms which brings interesting feeling	0.340	6.497	0.000	0.421	2.374
The rationality of the advertising frequency	0.362	6.944	0.000	0.425	2.351
The rationality of the advertising time	0.255	5.363	0.000	0.509	1.966

Sources: own calculations.

Dependent variable: Decision to buy, Adjusted R-squared = 0.722, F-statistic = 208.542, p= 0.000

The adjusted R-squared = 0.722 tells that the three independent variables the diversity of advertising which brings interesting feeling, the rationality of the advertising frequency and the rationality of the advertising time based on consumers' opinion explained 72.2% the variation of the buying decision. At 5% significant level, all the factors are statistically significant. The VIFs in this model are less than 10 so there is no evidence of multi-collinearity.

Theoretical model:

$$\begin{aligned}
 \text{Decision to buy}_i &= \beta_0 + \beta_1 \text{various interesting advertisement}_i \\
 &+ \beta_2 \text{rational advertising frequency}_i \\
 &+ \beta_3 \text{rational advertising time}_i + u_i \\
 i &= 1, 2, \dots, 245
 \end{aligned}$$

Estimated model:

$$\begin{aligned}
 \widehat{\text{Decision to buy}} &= 0.325 + 0.340 \text{various interesting advertisement} \\
 &+ 0.362 \text{rational advertising frequency} \\
 &+ 0.255 \text{rational advertising time}
 \end{aligned}$$

The rational advertising frequency of advertising has the most important influence on purchasing behavior of consumers with the highest $\widehat{\beta}_2 = 0.362$ (p-value = 0), which means if the consumers grade the advertising frequency of the firm by one rank higher in terms of its rationality, it will increase their tendency to buy by 0.362. The next important influential factor is various interesting advertisement. It explained the fact that advertising has reminding effect as examined by K. Bagwell (2005). Various interesting advertisements is the second most powerful element to affect buying decision: $\widehat{\beta}_1 = 0.34$ (p-value = 0) we can say if the rank is higher by one level, it will increase the decision to buy by 0.34. It is indicated here that the rationality of advertising time has least influence: $\widehat{\beta}_3 = 0.255$ (p-value = 0) which means if the rank of rationality of advertising time is higher by one grade, propensity to purchase will increase by 0.225.

2.3.3.3. Testing the hypothesis of advertising message

	Standardized coefficient	t-statistic	p-value	Tolerance	VIF
Constant	0.356	6.421	0.000		
Brief, short, understandable and easy to remember message	0.254	4.279	0.000	0.335	2.988
Reliable message	0.272	4.710	0.000	0.352	2.839
Friendly, familiar message	0.274	4.508	0.000	0.318	3.144
Lively message	0.145	2.651	0.000	0.396	2.527

Sources: own calculations.

Dependent variable: Decision to buy, Adjusted R-squared = 0.713, F-statistic = 162.374, p = 0.000

The independent variables: brief, short, easy to understand and remember message, reliable message, friendly, familiar message and lively message explained 71.3% the variation of decision to buy. At 5% significant level, these four independent variables are statistically significant. The VIFs are less than 10 so there is no problem of multicollinearity.

Theoretical model:

$$\begin{aligned} \text{Decision to buy}_i &= \beta_0 + \beta_1 \text{short message}_i + \beta_2 \text{reliable message}_i \\ &+ \beta_3 \text{friendly message}_i + \beta_4 \text{lively message}_i + u_i \\ i &= 1, 2, \dots, 245 \end{aligned}$$

Estimated model:

$$\begin{aligned} \widehat{\text{Decision to buy}} &= 0.356 + 0.254 \text{short message} + 0.272 \text{reliable message} \\ &+ 0.274 \text{friendly message} + 0.145 \text{lively message} \end{aligned}$$

With the same p-value = 0 and similar standardized coefficients, the three independent variables short message, reliable message and friendly message have almost the same effect on consumers' purchasing decision with $\widehat{\beta}_1 = 0.254$, $\widehat{\beta}_2 = 0.272$ and $\widehat{\beta}_3 = 0.274$, which tells that if these variables are graded one rank higher, decision to buy of consumers will increase by 0.254, 0.272 and 0.274 respectively. It is shown that the lively message has least impact out of the four factors ($\widehat{\beta}_4 = 0.145$). In other words, people prefer friendly message and reliable message more than the others. Accordingly, advertising message or advertising content does affect consumers' purchasing behavior.

2.4 Pepsi – Coca-Cola

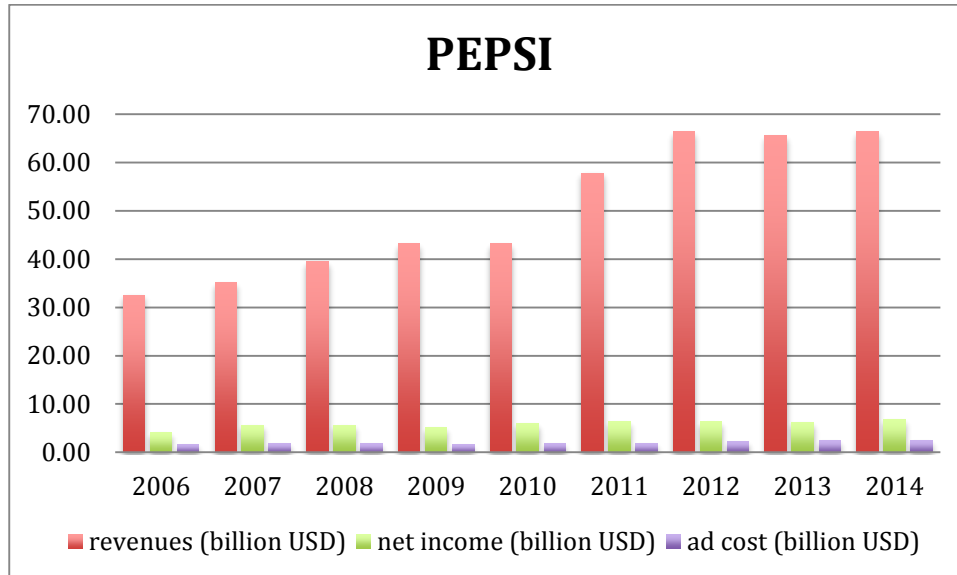
Besides the impacts of advertising on consumers, this study also takes into consideration firms' decision making by looking at the biggest brands in world's beverage industry: Coca-Cola and Pepsi to see how and why they compete in advertising. Coca-Cola and Pepsi have been battling for more than a century to dominate the carbonated soft drink market, trying to stay on top of each other. They created many forms of advertising such as print ads and video ads to fight against each other.²⁶ In carbonated soft drink market, these brands take up the highest market share worldwide: Coca-Cola: 42%, Pepsi: 31%. In this part, this study will point out the general trend of advertising cost compared to revenues and net income trend in both companies and also the trend of advertising cost/ revenues ratio by collecting the data from each company's financial statements and then it will compare the performance of these companies.

The Cola Wars between Coca-Cola and Pepsi is legendary. These most valuable beverage brands has competed for over a century and Coca-Cola always keep the No. 1 spot (Beveragedaily, 2013). Although Pepsi gained more revenue than Coca-Cola, its soda sold was much less than Coca-Cola (Business Insider, 2012). Overall, Pepsi had

²⁶ Bhasin, K., 2013. Coke vs. Pepsi: The story behind the never ending "Cola Wars". Retrieved from <http://www.businessinsider.com/coca-cola-vs-pepsi-timeline-2013-1?op=1#ixzz3Z9Gu4dpm>

steady increases in revenue, net income and advertising cost, except for the period from 2010 to 2011, the revenue of Pepsi jumped significantly by 14.61 billion dollars (33.8%).

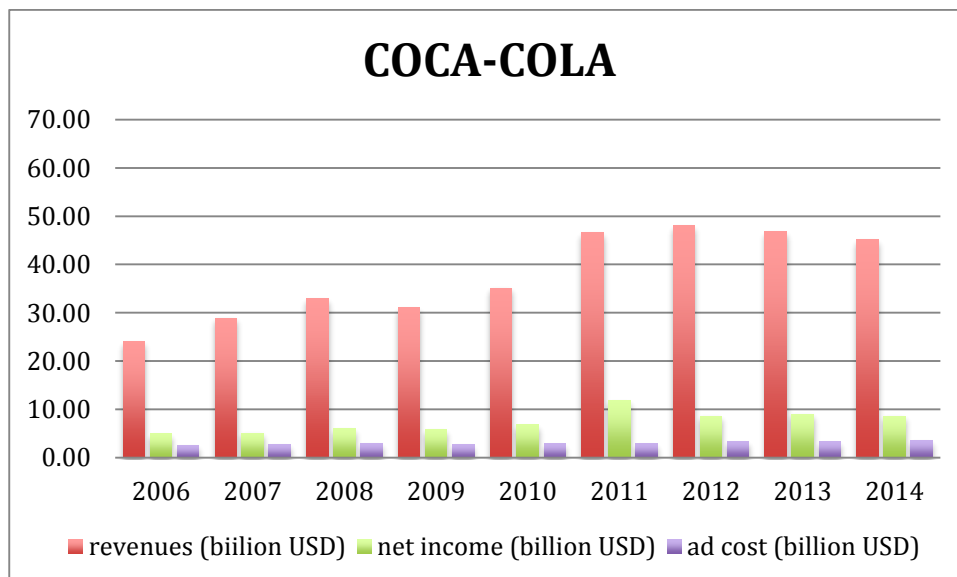
Figure 5. Pepsi: Advertising cost, revenue and net income trend



Source of data: Pepsi's financial statements

Generally, Coca-Cola's revenue, net income and advertising expense slightly increased over the years. Similar to the performance of Pepsi, Coca-Cola also had a great jump in revenue in the period of 2010 to 2011, followed by the greatest net income ever of Coca-Cola's history.

Figure 6. Coca-Cola: Advertising cost, revenue and net income trend



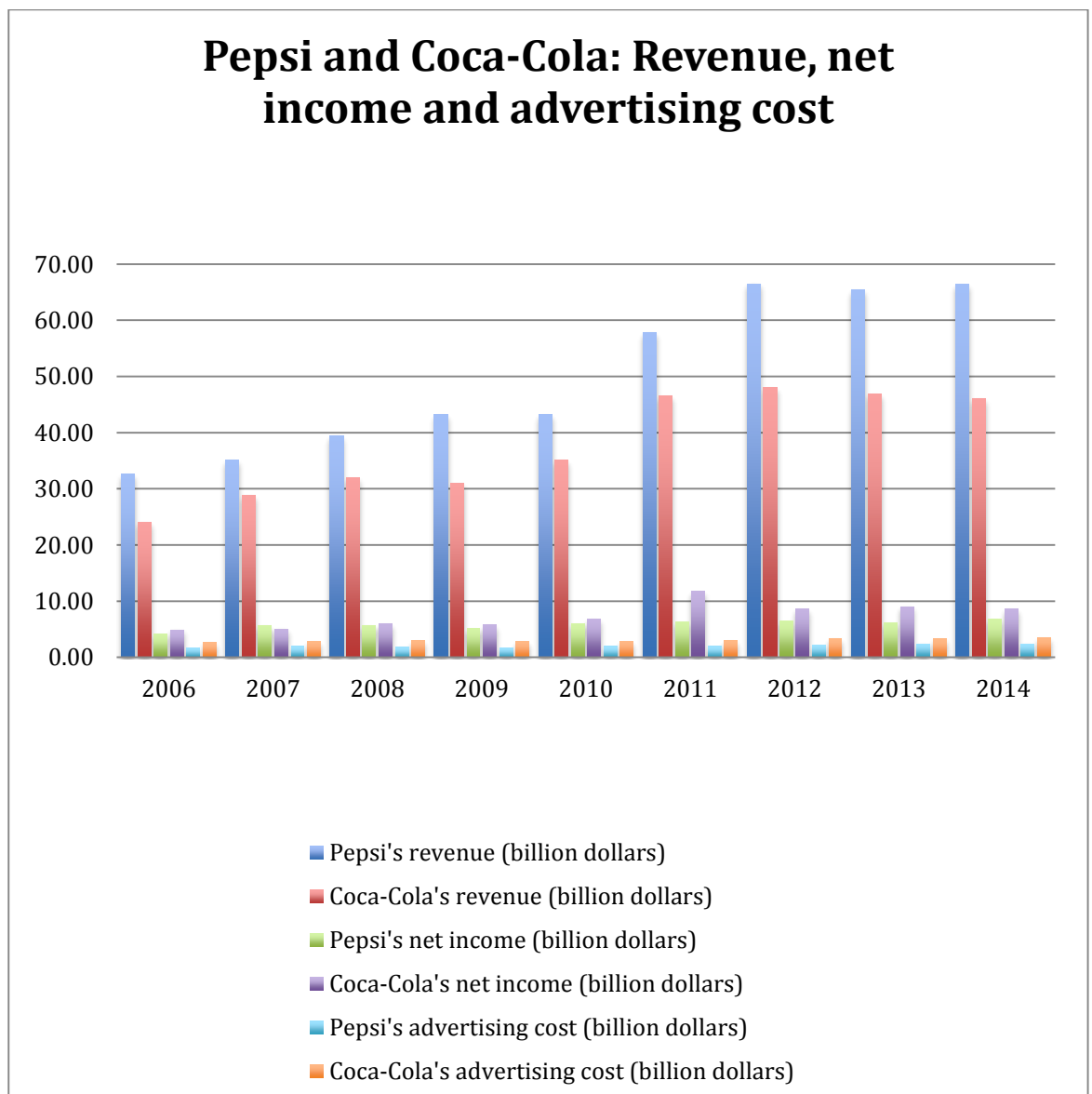
Source of data: Coca-Cola's financial statements

Overall, the graphs depict that Pepsi has higher revenues than Coca-Cola because even though Pepsi does not dominate Coca-Cola in coke market, its other multiple business lines haul in more cash. This is also the limitation of the data. Both witnessed

increase trend in advertising expenditures, net income and sales. Coca spent much more on advertising than Pepsi, this could be one of the causes leading to the higher market share and more power of Coca-Cola in coke market.

From the graphs, it could be recognized that although advertising accounted for very low percentage over the whole revenues, it still helped to enhance the sales of these big brands. That's why these leaders in beverage market always keep the advertising budget stable (without decreasing so much) and when one of them increase the advertising investment, sooner or later, the other will do the same to keep pace with its rival.

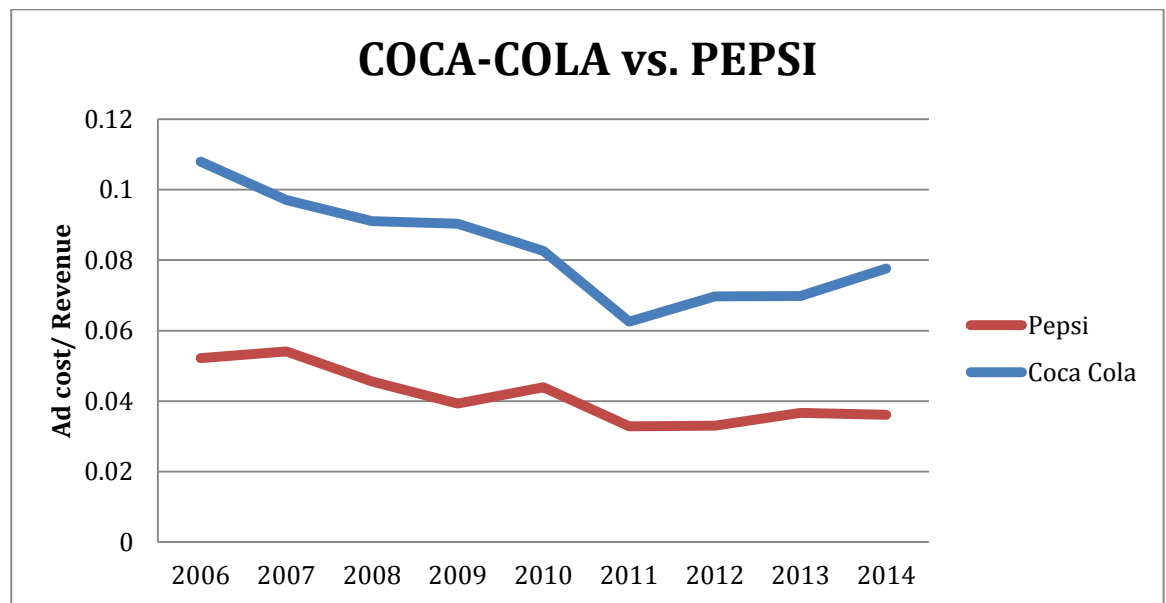
Figure 7. Pepsi and Coca-Cola: Revenue, net income and advertising cost



Source of data: own calculations.

In terms of the ratio between advertising cost and revenue, Pepsi seemed to have a better performance than Coca-Cola. Pepsi's ratio was smaller and declined steadily over the period while Coca-Cola's ratio grew stably from 2011 to 2014.

Figure 8. Coca-Cola – Pepsi: Advertising cost/ revenue trend



Source of data: Pepsi and Coca-Cola's financial statements

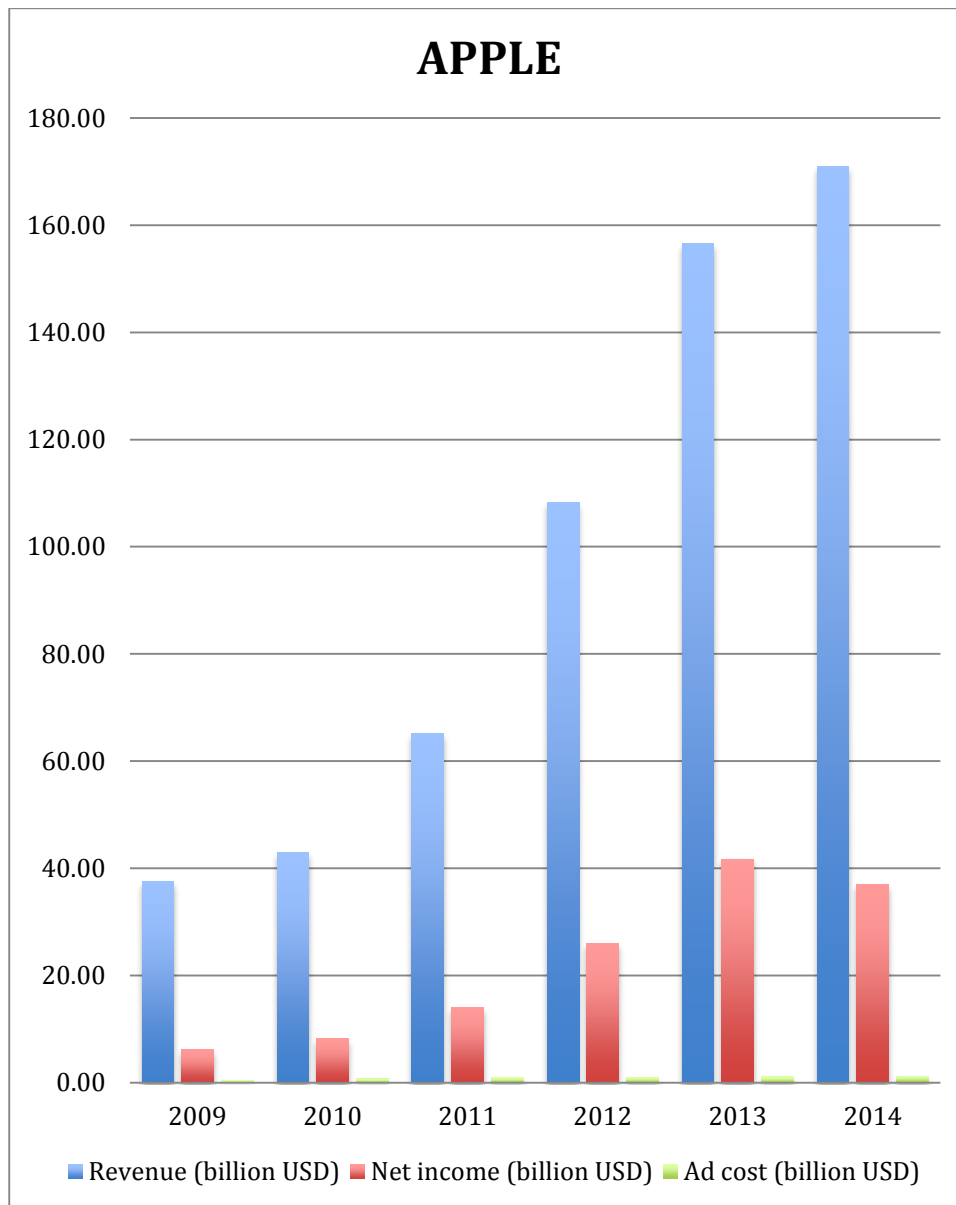
2.5 Apple – Microsoft – Samsung

Apart from looking at the beverage industry, this work also considers the performance in electronics industry. Apple (the most valuable brand in the world according to Forbes' list²⁷), has long been known as the most dangerous opponent of Microsoft (the second most valuable brand) and Samsung (the eight most valuable brand) in computers' operating system market and in mobile market respectively. In this section, the goal is the same as the previous case of Coca-Cola and Pepsi. The graphs and data will describe the general trend of advertising cost compared to revenues and net income trend as well as the trend of advertising cost/ revenues ratio in the three companies by collecting the data from each company's financial statements. After that, the performance of these big brands together will be compared with each other.

The graph below shows dramatic increase in revenue and net income of Apple although the increase in advertising cost is insignificant. So why could Apple raise revenue without spending much more on advertising as its rivals did? Hangen (2010) said: "The iPhone wasn't the first phone, but they engineered it to be so unique that you couldn't help but think it was. The iMac isn't the first all in one, but it became the only one that mattered". Apple made people believe that its products are so unique that people were eager to get them before others, they queued and waited for many days to buy the very first iPhones (Telegraph, 2014). Nevertheless, the main factor which has made Apple the most valuable brand (Forbes 2015) is users' experience, it always try to bring the best devices and services for consumers (Thanh, 2015).

²⁷ "The World's Most Valuable Brands." Forbes. Forbes Magazine, 2014. Retrieved from: <http://www.forbes.com/powerful-brands/list/>

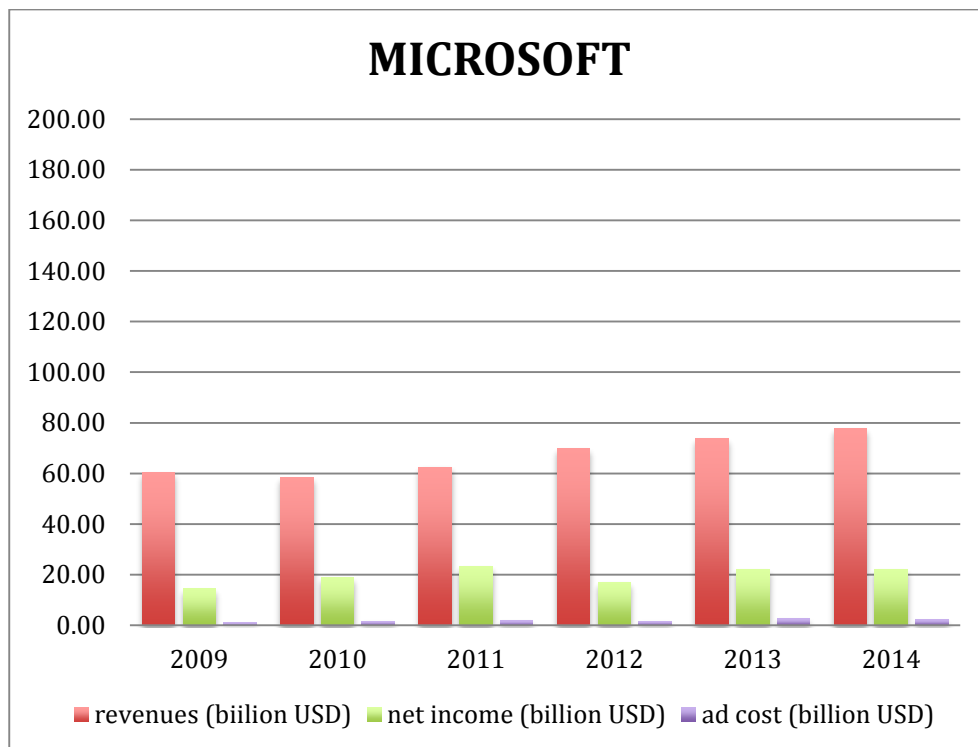
Figure 9. Apple: Advertising cost, revenue and net income trend



Source of data: Apple's financial statements

Unlike Apple, Microsoft does not have such good devices, as the CEO of Microsoft, Satya Nadella has admitted recently in his speech that Microsoft still lacks good flagship phones (Briden, 2015). For that reason, although Microsoft had increased its advertising expense from 1.6 billion dollars in 2012 to 2.6 billion dollars in 2013, the biggest advertising budget of Microsoft so far, Microsoft still could not have an impressive climb in revenue and net income like Apple. Thence, in 2014, Microsoft had to reduce its advertising cost to 2.3 billion dollars.

Figure 10. Microsoft: Advertising cost, revenue and net income trend

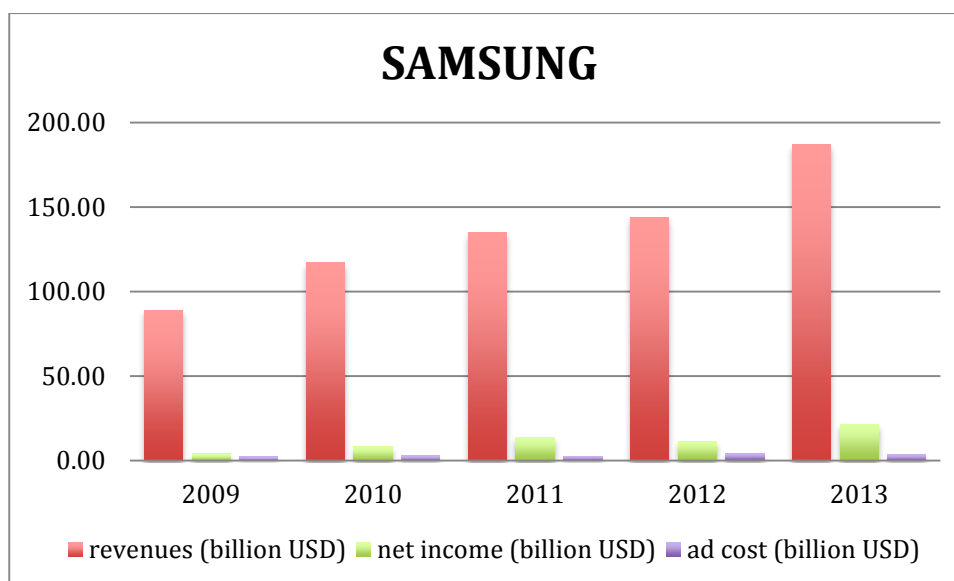


Source of data: Microsoft's financial statements

Apple and Samsung are well-known for their great smartphone war which the victory belonged to Apple (BBC, 2013). A video which was made by Phone Arena on Youtube has proved that Apple's iPhone 6 has faster speed than Samsung's Galaxy S5.²⁸ Ritchie (2015) confirmed that Samsung's product lacks basic alignment in its design, removable battery, SD card support and waterproofing. These show that there are a lot of advantages for Apple to surpass Samsung to attract customers. Therefore, the quality of the iPhone has defeat Samsung's Galaxy, which made Samsung raised investment on advertising but could not increase revenue and net income as remarkable as Apple did.

²⁸ Phone Arena. (2014, September 28). iPhone 6 vs. Samsung Galaxy S5 Speed Comparison: which is faster? [Video file]. Retrieved from: <https://www.youtube.com/watch?v=oE8jHskLNfQ>

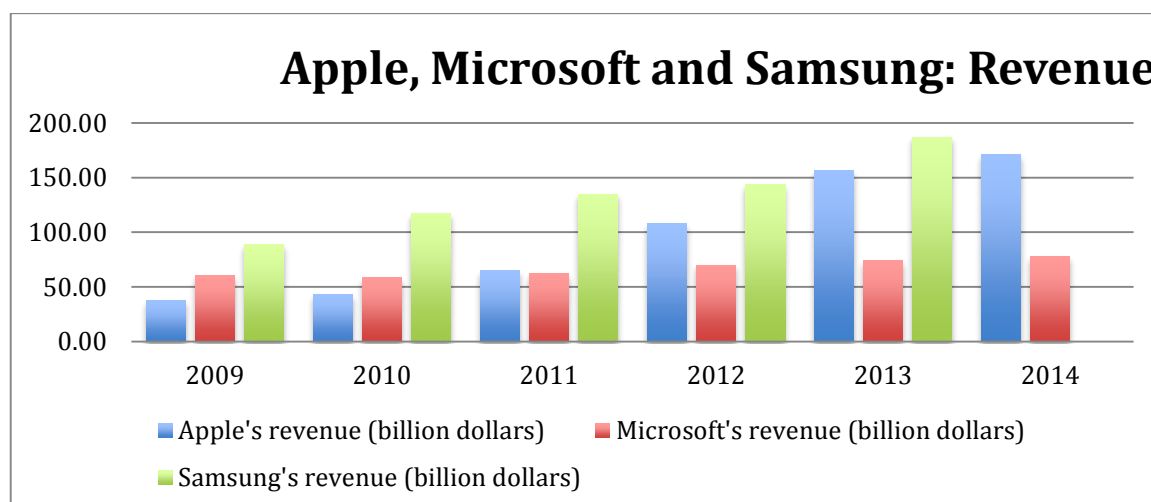
Figure 11. Samsung: Advertising cost, revenue and net income trend



Source of data: Samsung's financial statements

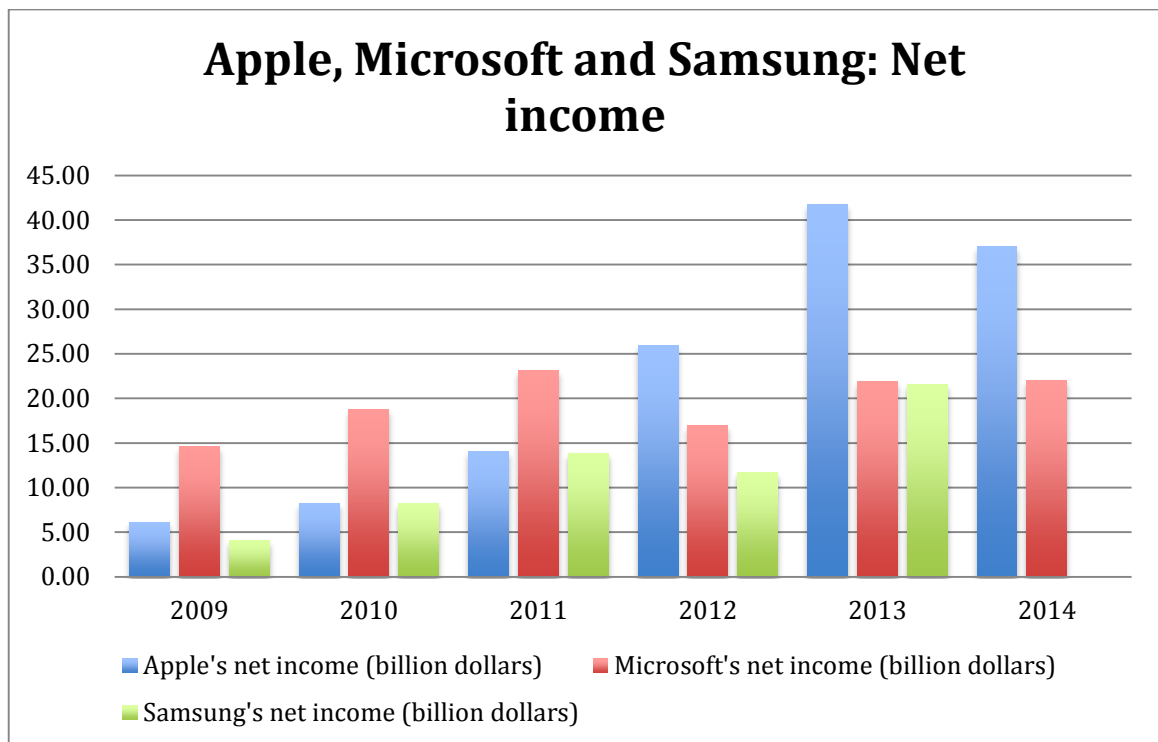
In general, these 3 big brands saw increases in advertising cost and sales especially for Apple, its advertising cost now doubled the amount of its advertising cost 5 years ago. Net income trends of Apple and Samsung have upward sloping while Microsoft has fluctuating net income trend. In 2012, because of the rising in power of Apple, both of its competitors – Microsoft and Samsung had significant decrease in net income, net margin and earning per share. This makes Samsung immediately boosted its advertising up to 4.39 billion USD during the period and Microsoft also responded by increase their advertising cost by 1 billion dollars the next year. It could be that because of their strong rivals – Samsung and Microsoft that led to the difficult period of Apple. In 2014, Apple's net income, net margin earning per share dropped remarkably.

Figure 12. Apple, Microsoft, Samsung: Revenue



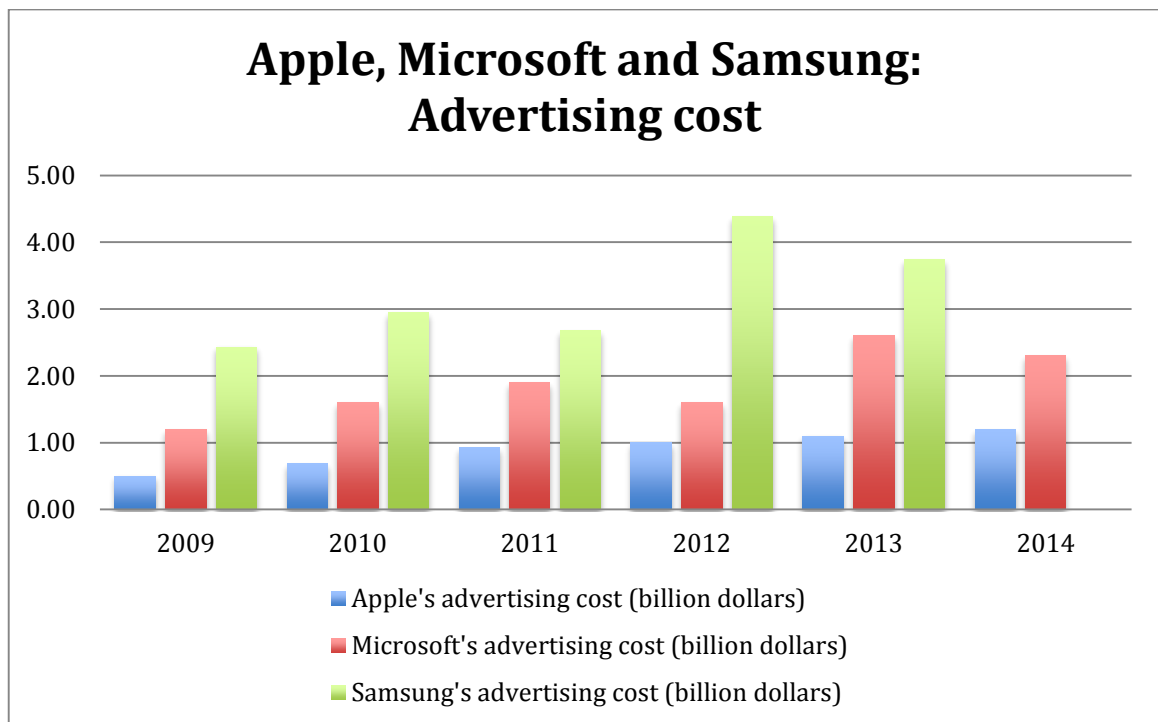
Source of data: Apple, Microsoft and Samsung's financial statements.

Figure 13. Apple, Microsoft, Samsung: Net income



Source of data: Apple, Microsoft and Samsung's financial statements.

Figure 14. Apple, Microsoft, Samsung: Advertising cost

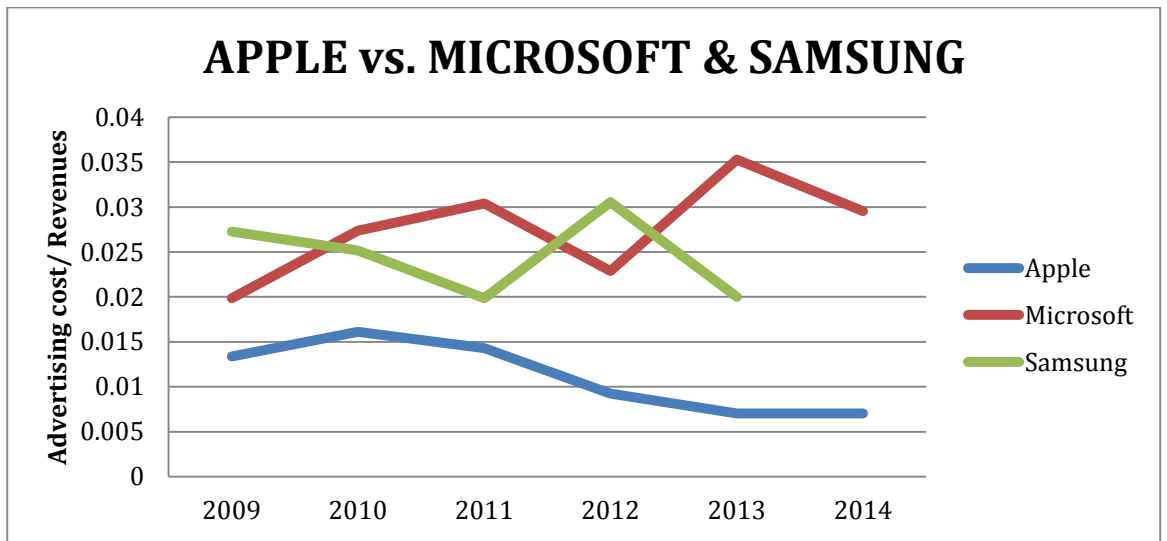


Source of data: Apple, Microsoft and Samsung's financial statements.

However, in terms of advertising expenditure per sale, Apple has better performance than its competitors. Even though Apple spent less on advertising compared to its competitors, its advertising cost/ sales is smaller than that of the rivals and the ratio declined over years. It could be explained that, to compete with Apple, Samsung and Microsoft had to invest much more in advertising to keep the revenues go up especially for Samsung, whose “biggest marketing budget in history” - 14 billion dollars, including advertising and promotion. It is even more than Iceland's total GDP.²⁹ This might be one of the reasons why Samsung now dominates Apple in terms of revenues and market share.

²⁹ Gillbert, D., 2013. Samsung's \$14bn is “Biggest Marketing Budget in History”. Retrieved from <http://www.ibtimes.co.uk/samsung-14bn-marketing-budget-biggest-history-525979>

Figure 15. Apple – Microsoft – Samsung: Advertising cost/ revenue trend



Source of data: Apple, Microsoft and Samsung's financial statements

Conclusion

Advertising expenditure has been increasingly questioned by many researchers due to the complication of measuring its effectiveness and return on investment. It is true that: “There is no more difficult, complex, or controversial problem in marketing than measuring the influence of advertising on sales. There is also probably no more interesting or potentially profitable measurement problem than this one.” – said by F. Bass.³⁰ Both Kaldor and Chamberlin also concluded that the net social consequence of advertising can not be decided on the basis of economic theory alone¹⁶ since advertising has dynamic effects and the financial performance of companies are affected by many other factors such as business strategy, marketing strategy, location, technology and social, psychological aspects. For that reason, examining the separate impacts of advertising on sales is no accurate. Nevertheless, it is still useful for firms to find a common trend of consumer behavior in order to response in rational way.

The paper attempts to point out the effects of advertising on consumer’s purchasing behavior as a reason of why heavy brands compete in advertising. The results show that advertising does influence consumers’ buying propensity and help the companies raise sales, the advertising costs of firms account for a very small percentage of total revenues and net income.

However, the study is not without limitations. The first limitation is due to the scarcity of time and data. Data are only available annually, which made it difficult to analyze firms’ financial achievements more accurately. There are just a few available data supporting this topic because the agencies who collect the data about business’ performance always does not share it publicly and keep it for sale at high price. Moreover, the data were provided in general for all products of the companies without being classified into specific product lines of the brands, which made it difficult to analyze more precisely.

Second restriction is that the financial statements of firms do not classify the cost of each type of advertising to test for each type of advertising’s impacts.

Thirdly, it is very hard to find a good instrument to measure the loyalty of the consumers to the brands so this study just stopped at obtaining the frequency of buying and quantity bought each time.

As well as the third limitation, the last constraint is due to the difficulty in proving that advertising raises barriers to entry even though it is obvious that the big brands take up highest shares in their markets which there were no brand could overcome. This problem should be examined on an industry by industry basis rather than by examining globally and on a broader range of products.

For the reasons of the limitations mentioned above, future research is needed to develop the favourable impacts of advertising in more detail. Nonetheless, the study suggests that it may be helpful for the forthcoming research.

³⁰ Bass, F. M., 1969. A Simultaneous Equation Regression Study of Advertising and Sales of Cigarettes. *Journal of Marketing Research*, 6(3), 291-300.

Appendix

VINAMILK'S SURVEY QUESTIONNAIRE

1. Age

- a. <18
- b. 18 – 25
- c. 25 – 35
- d. 35 – 45
- e. >45

2. Sex

- a. male
- b. female

3. Job

- a. student
- b. office staff
- c. worker
- d. housewife
- e. retailer
- f. other

4. How do you know about Vinamilk

TV ad
Radio ad
Newspaper
Banners, posters
Recommendation from friends
Website
Retailers' advice
Outdoor ad
Other

5. What will you do if you know about Vinamilk

- a. introduce to others
- b. buy the product
- c. do nothing
- d. other

6. Evaluate the statement

Diverse and interesting forms of advertisements 1 2 3 4 5

The intensity of the ads is reasonable 1 2 3 4 5

The time of the ad is reasonable 1 2 3 4 5

7. What do you think about Vinamilk

- a. clear, fresh
- b. 100% natural
- c. cool and great
- d. heaven
- e. other

8. To what extent do you agree with these statements about the packaging of Vinamilk

elegant, aesthetic packaging 1 2 3 4 5

fresh-feeling packaging 1 2 3 4 5

9. To what extent do you agree with these statements about the message of the ad: "The essence of natural remains in every drop of the fresh milk"

Brief message, easy to understand, easy to remember 1 2 3 4 5

The message sounds reliable 1 2 3 4 5

The message sounds friendly 1 2 3 4 5

The message is lively 1 2 3 4 5

10. To what extent do you agree with these statements about the system of Vinamilk stores

Clear, neat, elegant 1 2 3 4 5

Enthusiastic staff 1 2 3 4 5

Exclusive, special 1 2 3 4 5

Reliable price and quantity 1 2 3 4 5

Convenient location 1 2 3 4 5

11. Where do you usually buy the product?

- a. Supermarket
- b. Vinamilk's stores
- c. Retailers' stores
- d. Other

12. Reason to buy the product

Because I believe that the milk is clear and fresh

Because of the impressive advertisement

Because I want to try

Because of the suggestions from friends

Other

13. Reason to continue buying the product

- a. because of the good quality
- b. because of the habit

- c. because of the family members' need
- d. other

14. At which age are the people you buy the product for?

- a. <18
- b. 18 - 25
- c. 25 – 45
- d. >45

15. How often do you buy the product?

1 2 3 4 5

16. What quantity do you buy each time?

- a. separate box(es)
- b. a pack of 4 boxes
- c. a carton box (24 boxes)
- d. more than a carton box

17. Satisfaction when using the product

1 2 3 4 5

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