



**IGNITED MINDS**  
Journals

*International Journal of  
Information Technology  
and Management*

*Vol. VI, Issue No. I,  
February-2014, ISSN 2249-  
4510*

**STUDYING THE EFFECTIVENESS OF  
MARKETING TECHNIQUES IN THE PRESENCE  
OF WOM**

AN  
INTERNATIONALLY  
INDEXED PEER  
REVIEWED &  
REFEREED JOURNAL

# Studying the Effectiveness of Marketing Techniques In The Presence Of WOM

Sunita Rani

Research Scholar, Chaudhary Devi Lal University, Sirsa, Haryana

**Abstract – Traditional market models generally concentrate on single individuals rather than taking social interactions into account. However, individuals are tied to one another with invisible bonds and the influence an individual receives from others, affects her purchasing decision. In this process, some people have greater influence on other consumers' buying decisions that are known as opinion leaders.**

**In this paper, we aim to build an agent-based simulation model for a technological product in a monopolistic artificial market. In particular, we will try to assess the efficiency and profitability of different marketing strategies consisting of different price, promotion, quality levels and different number of targeted opinion leaders where consumers are subject to WOM effects. In the presence of WOM, product's quality is found to be the most significant factor affecting the profit of the company due to the positive WOM effect disseminated by the consumers.**



## INTRODUCTION

Consumers are a definitive wellspring of income for organizations and it is key to comprehend consumers keeping in mind the end goal to pick up a upper hand in the market. Scientists and professionals have been diving into the investigation of consumer conduct for quite a while (Zhang & Zhang 2007). After the first say of consumer conduct concept around 80 years back by the Austrian economist Boehm – Bawerk (Wooliscroft, Tamilia & Shapiro 2006), a ton of studies and explores are led on this subject.

As per Solomon (2009), a basic marketing concept expresses that associations exist to fulfill consumers' needs and needs. These needs and needs must be fulfilled by understanding the consumers that will utilize the product. What, when, why, where and how a consumer chooses to procure, utilization furthermore, arrange the product are fundamental questions for comprehension consumer conduct (Hoyer & MacInnis 2007). In expansion to consumers' close to home inclinations furthermore, needs, there are mental and sociological impacts that impact the consumers' acquiring choices. Consumers may buy a product keeping in mind the end goal to attain to a societal position or to have a place with a gathering. They can settle on an acquiring choice based on their past encounters or they can impart with their environment and gain from other consumers (Janssen & Jager 2001).

Consumers are joined from various perspectives that were not accessible some time recently. Web plays an

imperative part by associating consumers through interpersonal interaction locales, web journals, wikis, proposals locales, and so forth. (Hennig-Thurau et al. 2010). People are fixed to each other with undetectable bonds.

This structures confuse lattice of associations like a Bishing net. Each individual gets an asset from the other individual it is associated with. These associations might begin between companions, relatives, individuals whose life guidelines and hobbies are comparative, individuals who are physically near to one another or outsiders that can achieve one another through web (Libai et al. 2010).

Keeping in mind the end goal to comprehend practices of people, it is vital to comprehend the progress of the system in which they have a place. Organizations burn through millions to execute effective methodologies to make consumers talk about their products and make a powerful WOM (Solomon, Marshall & Stuart 2008).

The promoting organization JWT Worldwide states that, more than 85 percent of main 1000 Birms use WOM strategies today (Wasserman 2006). Absolutely, organizations can't control all the WOM made by the consumers. The inspiration to discuss a product and the level of fulfillment recovered from buying the product may shift depending on distinctive consumers. Likewise, negative WOM can be made by unsatisfied consumers or by unsuccessful WOM

technique as it happened to McDonalds (Wasserman 2006).

Marketing has been a successful instrument and technique for expanding the offers of a product (Jager 2007). For marketing techniques, organizations search for division of its consumers, procurement of fruitful products and administrations for every consumer section furthermore occupation of right special devices and valuing techniques to achieve the company's destinations (Walker, Mullins & Larreche 2008). Marketing blend is the strategic tool compartment that marketers use in place to make a fancied reaction from an arrangement of predefined consumers. Marketing blend, normally known as the McCarthy's (1960) 4Ps, comprises of product, value, place and advancement. Organizations spend push to discover the most productive marketing blend to execute a fruitful marketing methodology.

4Ps of marketing are key components of a marketing system, and WOM frequently supplements and broadens the impacts of advancements and has an impact on the offers of the product. Organizations may be thinking little of advancement effectiveness by overlooking conceivable WOM impacts (Homan, Legon & Libai 2004).

Marketing systems go for expanding the offers of a company, by the sociological and mental impacts they make on consumers also. Likewise, every particular individual is impacted in an alternate level what's more, every individual can impact other individuals with their buy experience. Product attributes values are additionally imperative calculates affecting the purchasing choice of the consumer. Cutting edge advancements and new marketing techniques develop over the long haul. The investigation of this complex environment may require diverse modeling approaches other than the traditional approach.

## MODEL

In our study we dissect the business pattern and profitability of propelling a mechanical product in a monopolistic market environment utilizing ABM. The company implements distinctive marketing methods which comprise of distinctive advancement and price levels, distinctive quality attributes of the product and distinctive number of focused on conclusion pioneers. It has the ability to change the quality trademark and price of the product, and also the advancement and sentiment pioneer system and to screen WOM impact on benefits. We consider three of the 4Ps, product (quality), price and advancement in the model and overlook the spot impact.

The market environment is the spot where consumers and products meet. There are N heterogeneous consumers in the market and they are associated through an interpersonal organization.

In the consumer populace there are M assessment pioneers. Supposition pioneers have a bigger impact on the consumers contrasted with other individuals. They are haphazardly conveyed among the populace. As it were consumers can act agreeing to their own inclinations and to impact each others' buying choices.

In this study we just take quality as the product choice and we set two mechanical traits for the predetermined product. The product has two distinctive characteristics. For the first trait, consumers may lean toward any worth relying upon their needs. Size can be n case for this sort of characteristic. The second quality is "the more, the better" sort of quality, which implies that consumers are continually ready to get larger amounts of it, for example, determination of the screen.

Price is the sum the consumer pay in exchange of the product. Despite the fact that it might appear that lower prices will draw in bigger number of consumers, with the sufficient advancement techniques, the inspiration and view of the product on consumers might change and consumers may be willing to pay a higher price to possess the product. They might additionally pay all the more with a specific end goal to achieve a social status or to fit in with a gathering. In this study, we allude to advancement as a policy that is administered to pull in more consumers, for example, advertisements or battles.

## METHODOLOGY

In this study we use agent based modeling as our methodology. ABM is a computational simulation method that serves to the study of social sciences. "It is a form of computational social science and it enables a researcher to create, analyze and experiment with models composed of agents that interact within an environment" (Gilbert 2008). Unlike the traditional approach in business research, which mainly focuses on collecting data through surveys, analyzing them and inferring conclusions with the aid of statistical models (Hair et al. 2009), ABM gives one the ability to create agents that have individual heterogeneity and decision rules, space them in a desired geographical or any type of space, connect them through a network for interaction and simulate them to better understand the dynamics of the social system (Gilbert 2008). Although ABM is not a new concept, only in recent years, large amount of studies began to be published.

This may be due to significant improvements in computer technology which enables modelers to analyze interacting agents, such as people or firms, and to simulate complex situations.

This promising computational method overcomes the difficulties of conducting experiments in social sciences. In real life, it is usually impossible or unethical to create isolated social systems, and

apply treatments to observe the outcomes. ABM allows us to create virtual social systems and conduct experiments repeatedly with different parameters and with randomly varying factors. Given a range of inputs, one can experiment to see how the model behaves, in other words, one can simulate the real world under variety of circumstances (Gilbert 2008).

Agents in the model are autonomous decision making entities (Khouja, Hadzikadic & Zaffar 2008).

The study of Wooldridge and Jennings (1995) claims an agent, from a more theoretical view of artificial intelligence, is a computer system that is either conceptualized or implemented using the concepts that are more usually applied to humans.

As human behavior is very complex, finding empirical data on consumer behavior and coping with sociological and psychological ambiguities are difficult. This makes it harder to model with traditional modeling approach.

In addition, they do not always act rationally; decreasing the price of a product does not always conclude in increased sales. The study of Deffuant and Huet (2007) claims that, this bounded rational characteristic of human beings makes it harder to define strict rules in modeling.

Consumers' attitudes towards a product may change over time depending on the effects of the social network and the perceived social facts. Psychological effects of advertisements and price changes may also change individual's attitude.

## EXPERIMENTAL SETUP

In this study, our primary aim is to assess the efficiency and profitability of different marketing strategies through simulation experiments. Each experiment, which consists of 20 time steps, is replicated 100 times. In each experiment different parameter setups are governed, in order to monitor the directions and the magnitude of effects of different marketing strategies employed by the company. Each experiment is performed two times, when WOM influence is in effect and not in effect in order to evaluate the importance of WOM effect. The first set of experiments is conducted in the presence of WOM. There are five different decision variables that affect the buying decision of the consumer. Price, promotion, two design parameters of the product and number of opinion leaders the company chooses to collaborate with. The simulations are run in order to monitor the effects of different product design, price, promotion and opinion leader strategies on profit of the company.

## CONCLUSION

In this study we assessed the impacts of distinctive marketing procedures in a monopolistic market and explored the level of impacts of product, price, and advancement and conclusion pioneer procedures on benefit of the company. We additionally meant to discover how product deals patterns advance over the long haul what's more, profitability of the company changes at the point when WOM is in and not essentially. As further studies, the model can be reached out to incorporate more than one company furthermore, product to recreate a focused marketing environment. The ideal time for dispatching another product can be researched and distinctive interpersonal organization models for consumer cooperation's can be examined.

## REFERENCES

- Deffuant, G. & Huet, S. (2007). "Propagation Effects of Filtering Incongruent Information," *Journal of Business Research*, 60 (8). 816-825.
- Gilbert, N. (2008). 'Agent-Based Models,' *Sage Publications*, UK.
- Hennig-Thurau, T., Malthouse, E., Friege, C., Gensler, S., Lobschat, L., Rangaswamy, A. & Skiera, B. (2010). "The Impact of New Media on Customer Relationships," *Journal of Service Research*, 13 (3). 311-33.
- Homan, J. E., Legon, K. N. & Libai, B. (2004). "Quantifying the Ripple: Word of Mouth and Advertising Effectiveness," *Journal of Advertising Research*, 271-280.
- Hoyer, W. D. & MacInnis (2007). 'Consumer Behavior,' Houghton, Boston.
- Jager, W. (2007). "The Four P's in Social Simulation, A Perspective on How Marketing Could Benefit from the Use of Social Simulation," *Journal of Business Research*, 60 (8). 868-875.
- Janssen, M. A. & Jager, W. (2001). "Fashions, Habits and Changing Preferences: Simulation of Psychological Factors Affecting Market Dynamics," *Journal of Economic Preferences*, 22(6). 745-772.
- Libai, B., Bolton, R., Bügel M. S., Ruyter, K. O., Götz, O., Risselada, H. & Stephen, A. T. (2010). "Customer-to-Customer Interactions: Broadening the Scope of Word of Mouth Research," *Journal of Service Research*, 13(3). 267-282.

- Solomon, M. R. (2009) 'Consumer Behavior: Buying, Having and Being,' Prentice Hall, USA.
- Wasserman, T. (2006). 'Word Games,' *Brandweek*, 24.
- Wooliscroft, B., Tamilia, R. D., & Shapiro, S. J. (2006) A Twenty-First Century Guide to Aldersonian Marketing Thought, *Springer*, New York.
- Zhang, T. & Zhang D. (2007). "Agent Based Simulation of Consumer Purchase Decision-Making and the Decoy Effect," *Journal of Business Research*, 60 (8). 912-922.