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Marketing-Mix Modeling

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CHAPTER-VI: MARKETING MIX MODELING

Marketing mix conceptualization has also some flaws. The marketing mix elements are not mutually exclusive. Furthermore, the marketing mix approach not necessarily includes interaction between marketing mix elements in calculations¹. Thus, after discussing each marketing mix element one by one in previous sections, it is now necessary to see how these 4P elements work together and/or interact each other and/or perhaps create synergy. It is important to see if any synergy effect and marketing success can be reach as a result of the interactions of marketing mix elements. Such interaction and potential synergy effects could be observed if we can discuss such interactions with the major marketing concepts developed for different purposes.

The first concept to look at is to Product Life Cycle (PLC). PLC gives us a chance to see how each marketing mix element works together in a different capacity in each stage of PLC throughout product's life. For example, in the early stages of product, all the marketing effort focuses on to creating consumer awareness. The benefits and value can be created with the new product is needed to be told to the consumers with intensive promotion efforts. Companies can collect important information about the product in this early stage. This is the stage where most of the product modification could also be conducted in light of immediate consumer feedback and requests. Price strategies generally focus on attractive value for especially frequently purchased items where product quality is not that dominant as opposite to specialty products. Product availability in the markets can also generate some level of consumer attention as also discussed with PBA (Push-Based-Awareness) in previous sections. Once the 4P elements successfully organized and sales targets reached in the introduction level, competitors would likely to attracted

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¹ Gronroos (1994)

to this market. Thus, competition in the markets gains speed, and the product needs to compete with its alternatives and perhaps imitations in the growth stage. The strategic goal is to focus product differentiation; thus promotion gets very important in this stage. Product development can still continue to find new ways to excel its product. As company try to differentiate its product from others, products modification efforts can accelerate as well.

(\$) Sales (\$) Profit (\$) Time Introduction Growth Maturity Decline Product H L H M **Price** M M H M **Place** M H H L **Promotion** Η H M L

Figure-6.1: Product Life Cycle and Marketing Mix Interplays

H: high importance, M: medium importance, L: low importance

Pricing can play important role as competition increases in the growth stage especially for everyday items. Both sales and profits go up during this growth stage. When the product reaches maturity level, sales start slowing down and profits start going down. The most important issue is to keep the price in a right level that sales and profit maximization can be accomplished. Since the product is presumably known and habitual buying behaviors are created, the most important marketing mission could be preserving the brand loyal consumers. The product, at the end of its life, can't generate anymore sales and profits get shrunken. The most important step would be prepared to leave the market with even below the cost prices, thus pricing can still play role in company's exit strategy. At that stage, nothing can extend the product's life neither place nor promotion. Thus, the most of marketing mix elements have less impact on increasing sales or profit of the product at the end of its life.

Another alternative way to look at the marketing mix elements interaction could be through investigating basic consumer shopping decision making process. Each marketing mix elements play different role in basic consumer decision making process as discussed in consumer behavior literature. Each marketing mix elements importance and roles are discussed in Figure-6.2 as follows.

Stimulus

Promotion

Problem

Awareness

Product

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Figure-6.2: Consumer Decision Making Process and 4Ps

In Figure-6.2, each marketing mix elements under consumer decision flow are indicated with shaded boxes. The first darkest shaded box indicates the most important marketing mix element in the typical consumer decision making process.

In this context, consumer desires can be created with stimulating advertising with a right message and right product and service at the stimulus stage. In early stages of consumer decision making process, consumers are needed to be awakened and realize that they have needs to specific consumption elements. Desires are burst and can be managed towards to a product or service that they can satisfy such desires and needs. This, eventually, makes consumer aware of the problem, or her needs, and act accordingly to satisfy her needs. In both "stimulus" and "problem awareness" stages, consumers are awakened by the right products with potential to satisfy the needs with an encouraging and stimulating promotion message. Once the consumer reaches the "information

search" stage, the consumer needs more information about the product and services. Informative advertising and promotion can play significant role introducing the product/service to the consumer. Later, in "evaluation of alternatives" stage, consumer needs also need price information to be able to make some comparisons about value elements of the product/service s/he is getting. Price starts playing significant role in this very stage as consumers in general try to get best product with best price. This, in turn, itself can also be seen as a satisfaction component. Once the decision is made which product/service to get before making final purchase decision, consumers need to determine where and when to buy that specific product/service as also picture in Figure-6.2. If the product is available everywhere or easy to find in market, consumer can easily finalize the purchase where the product is available. If the product is difficult to find and is not available everywhere in the market (as discussed in distribution elasticity concept in earlier Place chapter), the consumers perhaps include such costs elements in his/her pricing and value perceptions and calculations.

As also indicated in Figure-6.2, if consumer satisfied as a result of such aforementioned exchange, consumer can eventually continue the same transaction every time s/he needs to that product/service by going through earlier stages very quickly, in fact, in some incidence without considering previous stages but purchase stage. However, if consumer is not satisfied with product/service, s/he can reflect his/her dissatisfaction which requires successful complaint management. Sales personnel techniques discussed in "Promotion" mix can gain importance in terms of managing consumer dissatisfaction and thus rehabilitation of consumer back to the company with satisfying outcomes for both company and consumers. Otherwise, dissatisfied consumer will eventually go another source and starts another search process from the "information search" stage as pictured in Figure-6.2.

Another well-known model in consumer behaviors and personal selling literature is the Attention, Interest, Desire and Action (AIDA) model. The AIDA model discusses that firstly consumer's attention needs to be captured and then later consumer involvement should be encouraged to lead her to make a purchase decision (which is conceptualized as Action). Thus, each marketing mix elements plays different roles in garbing attention and interest at the beginning and make her desire to product and eventually purchase the product as pictured in Figure 6.3.

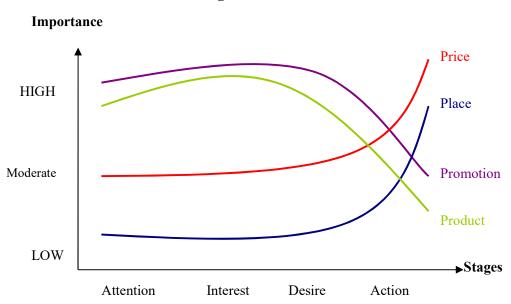


Figure-6.3: AIDA and 4Ps

One more time, Promotion plays very active role catching consumer attention as well as product design and features. Price has a moderate appeal for general shopping goods but higher importance for especially frequently purchase products at the beginning. When the consumer starts to interested in the product, then price plays very active role to rule consumer's desires as well. Place is the most important element until consumer gets serious and decides to act to but the product. Consumers seeks the product to buy it wherever it's available. Once the consumer passes the importance replace with price and place as these elements have more transactional focus and

purposes as depicted in Figure 6.3.

Marketing mix elements also need to work together while building brand loyalty and equity. This process and potential relationships between marketing mix elements and brand equity is also pictured in Figure-6.4. Brand equity is a representation of accumulated investment of the marketing mix elements into a brand². No company can reach brand equity immediately; it is a continues process and takes long time. The first step is to create brand awareness. Once the consumers are aware the brand in the market, or once company can be able to get into consumer's attention span, then they can start a communication about the brand with consumers. This is similar to what I discussed in Attention and Interest stages in AIDA model. If consumers can get satisfied with the brand that they are aware of, the relationship can grow and lead to brand loyalty. Brand loyalty can be discussed in twofold: "attitudinal" and "behavioral" brand loyalty³. Although attitudinal brand loyalty indicates consumers' feelings and commitments toward brand, behavioral brand loyalty is generally conceptualized with repeat purchase behavior, or purchase frequency of the brand. Once consumer loyalty can be established, it means that the brand equity is reached, thus incremental value added to a product/service. In other words, high brand equity means consumers have very positively strong feeling about the brand, that they see the brand superb quality. Companies can't get this stage by themselves unless they, now, how to utilize marketing

interest and desire stages where psychological stimulation is the focus, promotion and product's

mix elements on the way to reach brand equity.

² Yoo, Donthu and Lee (2000)

³ Oliver (1999)

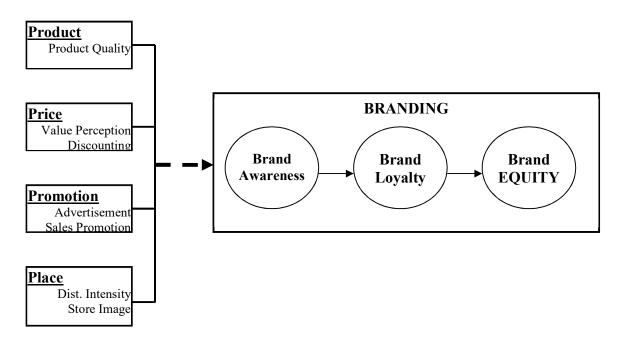


Figure-6.4: Marketing Mix and Brand Equity

Research revealed that product and product quality has significant impact on both brand awareness, loyalty and finally brand equity as also pictured in Figure-6.4. Consumer perception of product quality is also influenced by pricing and advertisement as a promotion element and store image⁴.

However, if consumers are offered a price discounts frequently that might impact consumers' perception of product quality negatively. Consumers may feel that product is not a good quality, this in turn impact brand equity negatively as well. This link, in fact, is studied very well in marketing theory and there are many supporting conclusions about link between price reductions and product quality⁵. On the other hand, some research revealed that if price promotion is

⁴ Yoo, Donthu and Lee (2000)

⁵ Carpenter (1987)

advertised in local newspapers or local advertisement channels that might eventually increase

repeat purchases (thus loyalty) and reduces consumers brand switching behaviors⁶.

Studies showed that there is also link between distribution intensity and brand awareness⁷ which

reveals itself as market share increases especially frequently purchased products⁸. On the other

hand, if a product is offered in a high quality retail store that might impact consumers' perception

of product quality and price perception in a positive way9. It can be pointed out that all of the

marketing mix elements may play important role in building brand awareness, brand loyalty and

eventually brand equity in different capacity. Promotion mix elements are the most important tools

among all to build stronger brand equity for various types of products although price and place are

stronger tools for building brand equity for the frequently purchased products. In general, strong

brand equity or brand name eventually can provide an advantage to company to gain maximum

returns and profits from using its brand name with new line products. Although strong brand names

can expand their market shares by utilizing their own brand name extending product lines, weaker

brand names eventually rely on competitive pricing and aggressive sales promotions¹⁰.

It is clear that marketing mix elements can be perceived as a competitive tool from different degree

by competing companies. In other words, the way company utilize marketing mix elements can

also be used as an indicator of the market's structure and competitiveness.

⁶ Carpenter and Lehman (1985)

⁷ Kucuk (2008), Kucuk (2011)

⁸ Reibstein and Farris (1995)

⁹ Grewal, Krishnan, Baker and Borin (1998)

¹⁰ Carpenter and Lehman (1985)

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Intensity of competition in the market can also directly affect the configuration of marketing mix elements. If there is no competition in the market or if there is only one producer in the market, the market is defined as monopoly. Thus, the product is un-substitutable, and the marketing mix elements will be unimportant and have no impact on consumers. Basically, the consumers buy whatever is produced by the monopolist. Thus, the **product** is the most important element of the marketing mix. Many innovative and new-to-the-world products are born as monopoly until some others decided to copy the product and enter the new market as also indicated in Figure 6.5. Apple iPhone was a big success and the product was unsubstantially unique that the product created a new market and enjoyed being only product in the market for a while.

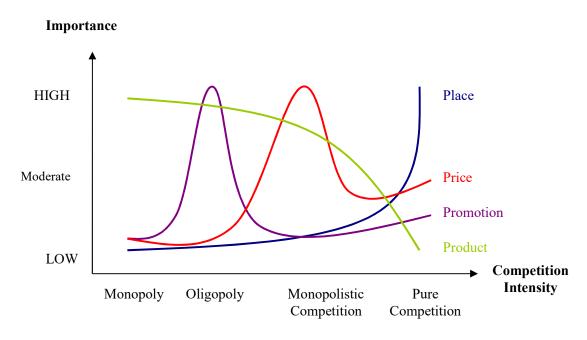


Figure-6.5: Competition and 4Ps

However, if there are no entry barriers to the market, more competitors will enter the market with a different capacity, Thus, in turn, will determine the intensity of the competition in that specific market. In this context, if there are a couple of major producers in the market who produce the similar products, the competition can shape in oligopoly. With the entrance of new competitors into markets, product loses its importance but product differentiation naturally gains more importance. Products are mostly similar to each other in oligopolistic markets, promotion efforts focus on product differentiation is the only way to create sales. In oligopoly markets, product differentiation can gain more importance as companies generally produce similar products around the similar price levels. Thus, companies generally compete with unique brand identity development efforts supported by major promotion campaigns as indicated with purple line in Figure 6.5. It can generally be difficult to get into these oligopolistic markets as there are major capital and copyright/patent barriers.

When more and more competitors enter the markets and large numbers of companies start competing in the markets, promotion is not as strong competitive tool as price. In these kinds of monopolistic competition, the focus is pricing for unique but easily substitutable products. If there are large numbers of competitors in the markets, the market has monopolistic competition structure. In these types of markets, there are unique and substitutable products in the markets, and price plays a significant role in competition as indicated with red lines in Figure 6.5. Price, perhaps, is the most competitive marketing mix elements among all. It can be changed in a minute while it is impossible to change the product, promotion and brand identity or availability of the product in minutes in the markets. On the other hand, the company should be careful making any sharp pricing changes as it is directly linked to product quality while promotion intensity is not (Carpenter 1987).

When market reaches pure competitiveness, the products are all similar and some point identical everywhere in the markets as there are large numbers of competitors in the markets. As the only way to make a difference in the market is to be able to be available everywhere at any time so that consumers can easily find the product whenever they need it. Thus, distribution and place play important role in pure competition markets as also indicated with exponentially increasing blue line in Figure 6.5

In any types of competitive market, a company's ultimate goal is to focus the right marketing mix combinations that can increase Market Share (MS). MS is a major competitiveness and hence success indicator of a company compared to other available incumbents. In this context, the smaller or shrinking market share values indicate major problems in the company which might require a major strategic change. It simply indicates how much revenue can a company generates compared to other competitors.

Sales revenues (compare to the other incumbents') can come from three major sources which directly impact the market share values. These are namely: Penetration (PEN), Brand Loyalty (BL) and Usage (USE); and can be formulated as follows¹¹:

$MS \equiv PEN \times BL \times USE$

As discussed earlier, PEN indicates the ratio of people buy the product at least once in a giving time period in a given population, while BL indicates how often these consumers buy the product (or simply repeat purchase rations) and finally USE indicates how many these consumers buy the product in that specific period. In order to reach high PEN numbers, company needs to inform and

¹¹ Ailawadi, Lehman and Neslin (2001)

convince them to purchase the product through serious promotion efforts supported with distribution. Otherwise, consumers can't be able to test or buy the product at least once. Thus, **promotion** and **place** play significant role generating penetration. On the other hand, the company needs to create repeat and continues purchases by providing highly satisfying product/service experience supported with brand identity and purchase reminding oriented **promotion** campaigns. Thus, loyalty, as an important component of MS, can be created and enhanced by satisfying product and services as well as promotion. There is also well-known rule called 20/80, which indicates companies 80% of its sales comes from 20% of its loyal consumers. Thus, the importance of consumer loyalty on MS can be seen paramount especially in service sectors. Finally, the amount consumers want to buy can directly be affected by the price of the product and availability of the product. In other words, USE can directly be under influence of price and place components in many competitive environments. Thus, stable and competitive market share directly related to right combination of marketing mix elements for long-lasting market presence.

Similarly, market conditions can eventually influence the performance of the marketing mix elements. In this context, if the market growth rate is high, the company should be able to grow and increase its market share as well. However, when market grows significantly but the company's market share shrinks means the company is facing a major problem. The company should go over each marketing mix element and questions its strategic direction. Alternatively, it is possible that the company's market share is thriving while market growth rate is descending. Thus, the company can perhaps enjoy the progress and increase its sales as much as possible. That point, place and pricing can gain more importance as the company tries to reach whole market to satisfy the already compromised needs. Finally, when market is growing and the company's

market share is also increasing, it means that the company perhaps found its own niche and it should keep going on the same orientation.

References:

Ailawadi L. Kusum, Donald R. Lehman and Scott A. Neslin (2001) "Market Response to a Major Policy Change in the Marketing Mix: Learning from Procter & Gamble's Value Pricing" *Journal of Marketing*, Vol. 65 (January): 44-61.

Carpenter, S. Gregory (1987) "Modeling Competitive Marketing Strategies: The Impact of Marketing-Mix Relationships and Industry Structure" *Marketing Science*, Vol.6 (2): 208-221.

Carpenter, George S. and Donald R. Lehman (1985) "A Model of Marketing Mix, Brand Switching, and Competition" *Journal of Marketing Research*, Vol. 22(3):318-329.

Grewal, Dhruv, R. Krishnan, Julie Baker and Norm Borin (1998) "The Effects of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions" *Journal of Retailing*, Vol.74 (3): 331-352.

Gronroos, Christian (1994) "From Marketing Mix to Relationship Marketing: Towards a Paradigm Shift in Marketing" *Management Decision*, Vol.32 (2): 4-20.

Kucuk, S. Umit (2008) Can Distribution Explain Double Jeopardy Patterns?" *International Journal of Retail & Distribution Management*, Vol.36 (5): 409-425.

Kucuk, S. Umit (2011) "Push-based brand awareness: the role of product availability and in-store merchandising" *The International Review of Retail, Distribution and Consumer Research*, Vol. 21(3): 201-213.

Oliver, L. Richard (1999) "Whence Consumer Loyalty?" *Journal of Marketing*, Vol.63 (Special Issue): 33-44.

Reibstein, David and Paul Farris (1995) "Market Share and Distribution: A Generalization, A Speculation and Some Implications" *Marketing Science*, Vol.14 (3): G190- G202.

Yoo, Boonghee, Naveen Donthu and Sungho Lee (2000) "An Examination of Selected Marketing Mix Elements and Brand Equity" *Journal of the Academy of Marketing Science*, Vol. 28(2): 195-211.