Saturated Model in Dynamic Theory on Chain Channel of Taiwan 3C Electric Appliances: Perspective of Dynamic Competition

Yi-Sheng Wang,
Department of Marketing & Distribution Management, Oriental Institute of Technology

DOI: https://doi.org/10.15520/jbme.v6i06.2191

Abstract: In the past, the research on 3C electric appliances was always directed into business unit strategy or resource-based theory as the main point of view for the enhancement of competitive advantages; however, the discussion on business unit in the past, focused on the sharing and expansion of the firm and structural unit more. In addition, the resource-based theory also focused on the controversy of dynamic point of view caused by the internal resource uniqueness of the firm too much. In this study, in order to understand the real situation of chain channel of Taiwan 3C electric appliances, E-Life Mall, Tsann Kuen 3C, Sunfar 3C, and U-LITE ELECTRIC CO., LTD, were selected as the objects, focusing on 32 high-level managers of chain of 3C electric appliances. This study used grounded theory, open coding, axial coding, select coding to analyze and proposed theoretical propositions in the end. The contribution of this study is to show the insights of “Saturated Model in Dynamic Theory on Chain Channel of Taiwan 3C Electric Appliances”, in hoping to propose the academic referential index and a good operational direction of retail market managers in chain channel of Taiwan 3C electric appliances.

Keywords: Chain Channel of 3C Electric Appliances, Saturated Model in Dynamic Theory, Dynamic Competition

INTRODUCTION

After Taiwan joined EFFA (Economic Cooperation Framework Agreement), there came a huge impact on chain channel of domestic 3C electric appliances. Due to the limitation of 3C electric appliance markets in Taiwan, too many chain channels, business content, and the influences on the high overlapping of hinterland market, the high competition therefore appeared within chain channels of 3C electric appliances. Under the high competition and the pressure of performance, chain channels of 3C electric appliances should re-think their competitive strategy. Although many scholars separately discussed the influences from environmental factors on firm strategy and market orientation (Pelham, 2000; Narver and Slater, 1994; Oczkowski and Farrell, 1988), the discussion on business unit strategy in the past focused on the sharing and expansion of the firm internal and structural unit more. Even the result showed that environmental factors has obvious influences on firm strategy and market orientation (Pelham, 2000), it was hard to be applicable and cannot explain how firms own sustained competitive advantages in the environment of dynamic competition.

In the past, regarding to the chain channel of electric appliances, there were also scholars who adopted resource-based theory (Wernerfelt, 1984; Barney, 1991) and emphasized on the uniqueness of internal resources for firms. That is to say, the reason firms could often keep their advantageous position was because they have sustained competitive advantages (Bartlett, 2003; Grant, 1991; Root, 1994). Under this hypothesis, each scholar proposed different theories to explain the source of competitive advantages. From the emphasis on the competitive analysis on the industry environment they placed (Porter, 1996), the emphasis on resource-based view of firms’ unique resource (Barney, 1991), to newly rose dynamic capabilities theory (Winter, 1987; Teece et al., 1997; Pisano, 1997), they all appeared the change of view on competitive advantages from scholars, and reflected differences of different background thinking logics of eras (Prasso and Brady, 2003). From the resource-based view, it indicates the source of sustained competitive advantages and after firms owned heterogeneous resource and capabilities, scholars further discuss which characteristics when forming strategic resource of competitive advantages should possess. Resource-based view indicated that the resource and capabilities owned by firms were important factors that constructed and keep competitive advantages (Amit and Schoemaker, 1993; Barney, 1991; Dierickx and Cool, 1989; Ghemawat, 1986; Grant, 1991; Peteraf, 1993; Wernerfelt, 1984). Influenced by the characteristics such as value, rareness, imperfect imitability, immobility of resource capabilities, each firm has different resource capabilities, and different important factors of sustained competitive advantages (Barney, 1991; Grant, 1991).

The above-mentioned RBT emphasized on the internal advantages in firms, but there are controversies as followed: (a) RBT and other technical terms, such as resource, position, capabilities, and core capabilities, all of them are lack of clear definition (Thomas and Pollock, 1999). Priem and Butler (2001) indicated the research of RBT mainly absorbed Barney’s statement (1991): Firm resource means “an firm’s ability of control, letting the firm brought the abilities of planning, implementing its efficiency, and changing strategy, including all resources, capabilities, organization position, firm’s property, information, and knowledge.” Such statement didn’t point out the difference between “resource and capabilities.” (b) RBT has brought
out discussion because of its static state (Mosakowski and McKelvey, 1997; Williamson, 1999; Koen et al., 2009; Chen et al., 2009; Priem and Butler, 2001), and scholars indicated the static competitive advantages already cannot be kept in the dynamic markets (Dilek et al., 2009; Eisenhardt and Martin 2000).

Therefore, the point of view this study attempted to brought out in the dynamic integrity model of competitive markets, illustrated how the chain channel of 3C electric appliances in markets of dynamic competition owned sustained competitive advantages in markets. Consequently, the purposes of this study were (a) to bring out theoretic propositions, (b) to bring out saturated model in dynamic theory on chain channel of 3C electric appliances.

LITERATURE REVIEW

Chain Channel of 3C Electric Appliance:
The definition of 3C is computer, communication, and consumer electronics (AC Nielsen, 2018). In recent years, due to the development of digitalization of multi-media, data, audio and IP-like transferring in communication, plus the need from consumer audio-visual electronics to data transmission, the side lines between communication, computer, and video and audio electronics became more and more vague, so 3C has then replaced to be known as the name of the overall commodity (Industrial Bank of Taiwan, IBT, 2018). The definition of chain channel of 3C electric appliances means traditionally entirely different channels of selling communication, computer, and consumer electronics, which inevitably went to the integrity of 3C and gradually directed to the transformation of the functions of 3C channels. Chain channels of 3C therefore have different scales, so it shows huge different operational styles (IBT, 2018). For those big scales whose capital could be billions, hundreds of stores, 500 Pings, and have great bargaining power of suppliers, but only their advertisement expenses are also high (AC Nielsen, 2018). For those smaller scales whose capital are only hundred millions, mostly 10s stores, local, or locate in a few cities, and their advertisement expenses are lower. Generally, stores with big pins usually locate in big places or have parking lots, so they are difficult to move; while stores with smaller pings easily locate in cities and rural areas, easy to move, and are more flexible in operation (IBT, 2018).

Due to the gradual development of channels of electric appliances, information, communication to that of 3C, plus big hypermarkets and teleshopping joined 3C merchandizing, the competitive environment that the channels of traditional electric appliances are more and more dramatic (IBT, 2018). So far, 3C hypermarkets and chain channels has gradually become main channels of electric appliances (and information, communications). In 2016, 30% domestic electric appliances were sold by hypermarkets and chain stores, 40% were sold by traditional stores of electric appliances, and 30% were sold by teleshopping and mail-order selling (IBT, 2018). In 2017, the percentage of selling electric appliances from traditional stores of electric appliances and 3C hypermarkets were the same. In future 5 years, the percentage of selling 3C commodities from chain channels will be more than 50% domestically. Due to the rise of 3C hypermarkets and chain channels, the space for traditional stores of electric appliances to survive has been compressed, and the percentage has gradually reduced, including the direct selling stores of brand manufacturers and service stations everywhere in the past. For example, Teco, Kolin and Sampo has closed their direct selling stores (IBT, 2018). According to the survey, it shows the expenses on household appliances and equipment are approximately 3.02% of average final consumption expenditure for folks, which is 1.898% of gross domestic product (GDP). IBT estimated the overall market scale of 3C domestically are about 250 billions; pure information commodities could be 120 billions; communication commodities which are mainly cell phones, are averagely 5,800 NT dollars for each, so there are 60 billions in domestic markets in 2018. After eliminating the demand value of information and communication markets, the domestic consumers’ demand are estimated approximately 80~90 billions.

Dynamic Capabilities Theory:
The definition of dynamic capabilities by Teece et al. (1997) means the capabilities of integrity, creation and re-distribution of internal and external abilities to meet the environment of rapid changes. The term “dynamic” means the ability of update for adapting the change of external environment as an organization. When the changing speed of industrial technology is faster or its changing scale is bigger, the uncertainty in the future market competition would be bigger; meanwhile, the firms’ capabilities of innovation to reflect therefore appears to be very important. The term “capabilities” emphasized on modification, integrity, and re-distribution of skills and resource from both internal and external organization to meet the ability on demands of changing environment. Since Teece et al. (1997) proposed dynamic capabilities theory, this theory then received attentions from many scholars, and were studied and discussed its influence factors by them. Besides, it can be known from related research by Teece et al. (1994, 1997), while facing the rapid change of science and technology and environment of global competition, in order to survive, firms pursue sustainable development and growth, so they would implement a series of organizational reforms, but if they do not have related dynamic capabilities, this organizational reforms might not be easy to success (Blyler and Coff, 2003; Dutta, Narasimhan and Rajiv, 2005; Ethiraj, Kale, Krishnan and Singh,2005; Pan, Pan and Hsieh, 2006).

According to the basis of dynamic capabilities mentioned above, Eisenhardt and Martin (2000) concretely listed examples of dynamic capabilities, such as R&D position of commodities from Honda Co., Ltd., the position of resource distribution from Intel, and the position of merge and integrity from HP, and they indicated the specific process of dynamic capabilities. Furthermore, Helfat and Peteraf (2003) used life cycle view to analyze capabilities and the revolutionary process of capabilities, stressing on capabilities could create changes of important direction and route with the development of time. This analysis emphasized on the analysis of capabilities development, not the exploration of resource, and it upgraded from static view of resource-based theory to dynamic view of capabilities.

RESEARCH DESIGN
So far, chain channels of 3C electric appliances in Taiwan include E-Life Mall, Tsann Kuen 3C, Sunfar 3C, U-LITE ELECTRIC CO., LTD, Wuchang, Jeco, Fortress, and LS 3C. Among them, scales of Wuchang, Jeco, Fortress, and LS 3C are too small, and stores are too less (AC Nielsen, 2018), so they were not selected as objects. The conditions for the objects of study should be (a) these chain channels of 3C electric appliances should be top 5 firms on chain rank in Taiwan in 2018; (b) the interviewees should be managers with high level and senior selling representatives in Taiwan markets, and have experiences on selling products both domestically and internationally; (c) their seniority of service limits to over 5 years. They contact chain markets of 3C electric appliances, have experiences of long-term marketing and interaction, deeply understand market models of chain channels of 3C electric channels, and have internal marketing and promotional strategy that people do not know. Therefore, the objects of this study are top 4 chain channels of 3C electric appliances, E-Life Mall, Tsann Kuen 3C, Sunfar 3C, and U-LITE ELECTRIC CO., LTD, including general managers, marketing vice-presidents, chief strategy officers, Dean of R&D, marketing managers, business sales, and senior sales representatives in each firm. The research objects are 32 high-leveled managers.

In this study, grounded theory was adopted, with run-down script analysis, and open coding, axial coding and select coding were used to analyzed as well. Lastly, the data and evidence obtained from coding were used in intertextuality of the text, researchers’ theoretical sensitivity, and contextualization to induce (Glaser, 2006).

### TEXT ANALYSIS

In this step, the purpose of the textual analysis to grounded theory is to obtain "conceptual meaning of value phenomena between variables". In order to efficiently organize interviewing data from 32 interviewees, CAQDAS(computer assisted qualitative data analysis software) were used in this study: NVivo 8 to analyze data. Through the organizational analysis, there were three coding results in three stages; the steps were: the first process of open coding: the open coding is implementing in the interviewing content; (a) to define phenomena first; (b) then to create conceptual labeling; (c) to induce line by line analysis. The second process of axial coding: in open coding, the overall induction was done again in this study, and induced the concept of same properties into the concept of context-bound with higher level; this process is called axial coding. The last process of select coding: apart from considering internal factors of each dimension, there were still mutual relations with other dimensions. So the following methods were used to achieve the purpose of select coding in the grounded theory: (a) to connect the relations between categories; (b) to enforce the relations between evidence and concept; (c) to constantly seek properties of the main category and sub-category, and to confirm the location that the data faced; (d) To further explore and explain the evidence in the phenomena. As shown in Table 1.

<table>
<thead>
<tr>
<th>Select coding</th>
<th>Description</th>
<th>Axial coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business strategy</td>
<td>Indicating the concept of value phenomena the firm entity uses to define business strategy, including differentiation strategy and cost leadership strategy.</td>
<td>1. Cost leadership strategy</td>
</tr>
<tr>
<td>2. Market orientation</td>
<td>Indicating the concept of value phenomena the firm entity uses to define market orientation, including cultural values and market activity facet.</td>
<td>2. Differentiation strategy</td>
</tr>
<tr>
<td>3. Extent of the dynamic environment</td>
<td>Firm entity’s concept of value phenomena in performance, including dynamics, heterogeneity and hostility.</td>
<td>3. Cultural values</td>
</tr>
<tr>
<td>4. Performance</td>
<td>Firm entity’s concept of value phenomena in defining market orientation, including financial indicator and non-financial indicator.</td>
<td>4. Activity facet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Dynamics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Heterogeneity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Hostility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Financial indicator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. Non-financial indicator</td>
</tr>
</tbody>
</table>

This study explores the relations of the 9 axial codings in a linked category through the select coding and axial coding above, and in a persistent way looks for the relations between the main category and sub category. This study obtains 4 select codings and subsequently uses the coding texts acquired from grounded theory in combination with the intertextuality and the theoretical sensitivity and contextualization of the scholars (Strauss and Corbin, 1998) to put forth the insight of theoretical propositions.

**Saturated Model in Dynamic Theory for 3C Chain Channel**

This study constructs the Saturated Model in Dynamic Theory for 3C Chain Channel by way of the contextual induction of select coding and axial coding, as illustrated in Figure 1 below.

---

*Yi-Sheng Wang et al., Journal of Business Management and Economics, 6 (06), June, 2018*
VARIABLE AND CONTEXTUALIZATION INDUCTION

Firms Strategy:
The discussion of market-oriented variables were more on internal environment factors in firms, such as factors of high-leveled managers, organization system, recruitment and rewards. Until recently, scholars just started to study the influence from vendors’ business strategy to market orientation. Kohli and Jaworski (1990) thought market orientation is a set of unique action and exercise. Therefore, from the strategic level, the market orientation is more closed to functional level in this study, so the Firm strategy of higher levels would influence the extent of market orientation. That is to say, the implementation of market orientation should depend on firm strategy, and different firm strategy would have market orientation of different extent.

Regarding to Firms strategy, this study adopted cost leadership strategy and differentiation strategy from Porte’s classification. Regardless the factor of focus strategy, the focus actually is the dimension of the market scope (Miller, 1987). Firms still have to choose ways of competition again, so the factor of focus has been eliminated and only cost leadership strategy and differentiation strategy which meet competitive advantages left.

Market Orientation:
The scholars’ definition of market orientation in the past is mainly point of view from Narver and Slater (1990) and Kohli and Jaworski (1990). The former thought market orientation is “a set of view of special cultural value”, which focused on cultural aspect more; the latter thought market orientation is “the whole organization react properly to intelligence”, which focused on activity aspect.

This study quoted the view from Kohli and Jaworski (1990) to the dimension of market orientation. It suggested that while discussing the idea of market orientation, we should think from both cultural and activity aspects, then the concept of market orientation could be completely conveyed. Therefore, the dimension used in this study include 5 aspects: intelligence generation of customer orientation, intelligence generation of competition orientation, internal intelligence dissemination, intelligence responsiveness of customer orientation, and intelligence responsiveness of competition orientation.

The Extent of Dynamic Environment:
Many scholars used to take environmental factors as moderator variables of firm strategy and performance, but the environmental dynamic extent has never been taken as moderator variables which influence performance. In this study, when different cooperated modes were in different uncertain environmental dynamic extent, there would be different performance. This study used the uncertain extent of environmental dynamics to evaluate the changes of a general environment and mission environment, and adopted the view from Duncan (1972), choosing 3 dimensions of “dynamics”, “heterogeneity”, and “hostility” to value the uncertainty of dynamic environment.
Performance:

Through a lot of empirical research (Pelham, 2000; Narver and Slater, 1994; Oczkowski and Farrell, 1988), it can be measured that there are many indexes of firms’ performance, and when there are too many studies used in the analysis of firms’ performance, financial index of quantification would be used to measure. But from the organization performance, the category of performance is not merely limited in financial index. Therefore, non-financial index shouldn’t be regarded, so in the questionnaire of the measure of bank performance in this study, both financial and non-financial indexes would be considered. In the selection of financial index, Return on Assets Ratio and Gross Profit Margin that scholars often used, would be chosen. Non-financial index includes customers’ loyalty, newly elected service/product success rate, market share, and overall performance. Among them, the financial index is measured by achievement; non-financial index is measured by satisfaction.

Value Proposition:

This study proposes the theoretical propositions based on the grounded field data, literature review and the theoretical framework.

The Effects of Suppliers’ Differentiation Strategies and Cost Leadership Strategies on Market Orientation

According to the definitions of Porter (1980), the main purpose of differentiation strategy is to, based on product or service that is most valued by customers, propose the customers with unique design, image and value that are completely different from those of other competitors to satisfy customers’ special needs. And for banks, the practices may include the differentiation between the competitors in terms of product/service, the emphasis of customer service and tailor-made service, the building of unique brand image, and the providing of comprehensive consulting service. These practices represent high level of market orientation, and therefore, this study confirms that banks that use differentiation strategies have high level of market orientation. On the other side, according to Porter’s (1990) opinions about cost leadership strategy, he believes that the main purpose of this strategy is to make the firms the low-cost suppliers in the industry in which they are engaged, and the firms need to spare no effort to achieve the goal of keeping the cost low and be able to maintain this cost. So, for banks, the practices may include the minimization of advertisement of human resource or the reduction of cost of funds. As a result, this study concludes that banks that use cost leadership strategy have low level of market orientation. According to the deduction above, the following propositions are proposed:

Proposition 1: If 3C chain channel suppliers used differentiation strategy, they would have higher level of market orientation.

Proposition 2: If 3C chain channel suppliers used cost leadership strategy, they would have lower level of market orientation.

The Effects of Market Orientation Level on Performance

According to the definitions about market orientation from Kohli and Jaworski (1990), it is obvious strategic level falls in the scope of functional level, and the higher strategic level is the so-called firm strategy. This study agrees that different strategic level should working consistently to have better performance. On the other side, according to the proposition 1 (P1), those that use differentiation strategy have higher level of market orientation, and the suppliers that use cost leadership strategy have lower level of market orientation. In other words, differentiation strategy works well for high level market orientation and has higher degree of strategic consistency, while cost leadership strategy works well for low level of market orientation and has lower degree of strategic consistency, and therefore, the performance will be better if the firms make the strategies consistent. According to the deduction above, the following propositions are proposed:

Proposition 3: If 3C chain channel suppliers used differentiation strategy and had high level market orientation, they would have better performance.

Proposition 4: If 3C chain channel suppliers that use cost leadership strategy and had low level market orientation, they would have better performance.

The Effects of the Extent of Dynamic Environment on Market Orientation and Performance

This study proposes that higher extent of the dynamic environment indicates unstable market, therefore, 3C suppliers should use differentiation strategy and high level market orientation in the hope of attracting more customers and creating more opportunities for 3C suppliers to expand the market share, this will in turn improve their performance. On the other side, if 3C suppliers use cost leadership strategy and lower level market orientation in the context of lower extent of the dynamic environment, it will be difficult to attract customers and it will be difficult as well for the firms to have the opportunity to grow up and expand, and the performance will be degrading accordingly.

Furthermore, this study also proposes that lower extent of the dynamic environment indicates 3C suppliers are in an environment that has steady changing pace and competition model, and 3C suppliers, at this moment, should use cost leadership strategy and low level market orientation so as to improve the internal efficiency and reduce the cost used in increasing the market orientation when the industry environment becomes stable. 3C suppliers that follow this approach will have better performance. On the other side, if 3C suppliers use differentiation strategy and higher level market orientation in the context of lower extent of the dynamic environment (that is, when the environment is becoming stable), 3C suppliers will not necessarily attract more customers just because of their adoption of differentiation strategy and high level market orientation, instead, this will increase the cost and the performance will degrade consequently. According to the deduction above, the following propositions are proposed:

Proposition 5: If 3C suppliers used differentiation strategy and high level market orientation in the context of higher
extent of the dynamic environment, they would have better performance than when using cost leadership strategy and low level market orientation.

**Proposition 6:** If 3C suppliers used cost leadership strategy and low level market orientation in the context of higher extent of the dynamic environment, they would have better performance than when using differentiation strategy and high level market orientation.

**CONCLUSION AND SUGGESTIONS**

**CONCLUSION**

The 3C chain channel industry in Taiwan is currently in a highly competitive environment, and every 3C chain supplier has different competitive strategies and the degree of market orientation varies as well. This study proposes results that can help the 3C chain channel suppliers to reach the most appropriate market orientation degree while making their competitive strategies and therefore increase their performance. In addition, this study further takes the extent of the dynamic environment as the moderator variable for performance between competitive strategies and the coordination of different market orientations, and therefore, the results from this study can propose more appropriate suggestions that better conform to the practices for the 3C chain channel industry.

**Limitations and Suggestions:**

This study focuses on the property limitations of the 3C chain channel suppliers, though interviews with the top four 3C chain channel suppliers have been conducted, this study has been unable to clearly presents the property factors for 3C chain channel. The property range of the samples can be expanded in future studies to facilitate the exploration if the property factors do affect the building of the competitive advantage for 3C chain channel. Secondly, the value of Qualitative Research focuses on “discovery”, while Quantitative Research focuses on “verification”. It is suggested the Quantitative method can be incorporated with the study to verify the propositions of this study.

**REFERENCES**


[28]. Oczkowsk, E. E. & Farrell, M. A. 1998. Discriminating between measurement scales using non-nested tests and


Author Biography

Yi-Sheng Wang, Ph.D.
Department of Marketing & Distribution Management, Oriental Institute of Technology
Telephone: +886-2-77388000 ext. 5223