A Survey of Sale Force Automation – Setting up Management Practice for Taiwan's Financial Service Industry

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The study explores sale force automation (SFA) practice in four large Taiwanese financial companies. We focus on management, sales staffs' points of view, and benefit / resistance of adopting SFA system. We discuss the guiding process and process management of the organization level. Results show that adopting SFA can increase organizational efficiency, effectiveness and productivity. Sales staff resistance is the critical factor leads to more than 60% of all SFA projects being unsuccessful. Intra-organizational communication and internal training / trust are critical factors to make sure SFA success. Key managerial implications for theory and practice are discussed.

Field of Research: Operations Management, Supply Chain Management

1. Introduction

According to Zikmund *et al.* (2003, p116) "In personal selling, the creation and maintenance of mutually beneficial long-term relationships with customers is called relationship selling. One of the fundamental aspects of relationship selling involves maintaining regular contact with clients and being familiar with each

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customer's circumstances and needs. The application of digital and wireless technologies to personal selling is known as **sales force automation (SFA)**. CRM's beginnings stem from SFA attempts to increase sales productivity, evaluate customer service, increase customer satisfaction, and create loyal customers." SFA consists of many tasks, such as: (1) contact and time management, (2) lead management, and opportunity management, (3) knowledge management and intranet access, (4) price quotes and order configuration, (5) follow-up management, and (6) analysis and reporting tools.
Nevertheless, SFA seems to be fraught with pitfalls. Previous study suggests that more than 60% of all SFA projects have been unsuccessful (Rivers & Dart, 1999). Holt (1998, p. 38) sums up the problem best, "…salespeople are not comfortable with technology and resent having to type in data when they'd rather be out selling." Thus, the issues of developing theory of practice of motivating the sales force to adopt and use SFA technology has become an important concern for managers and researchers.

2. Literature Review

Research relating to Sales Force Automation, or SFA, can be dated back to as early as mid-1980s (Collins,1984; Klompmaker,1980-81; Wedell and Hempeck1987, a,b). Bush & Grant (1994) discussed SFA in their research on the trend affecting sale force. SFA refers to the utilization of computer software and hardware and telecommunication devices during sales and/or administrative activities by salespersons (Morgan & Inks, 2001). SFA system consist of centralized database systems that can be accessed though a modern by remote laptop computer using special SFA software ...(so that a) salesperson… can get constantly refreshed information regarding various aspects of the job (Parthasarathy and Sohi,1997); SFA systems utilize computerized hardware and software to provide automated collection assimilation, analysis and distribution of information to improve sales force productivity(Morgan and Inks, 2001); SFA supports the sales process by improving the speed and quality of information flow among the salesperson, customer and organization (Speier and Venkatesh, 2002). The popularity of SFA stems from the numerous benefits that these systems promise, including increased productive selling time, enhanced contact management abilities , and most important, the ability to deliver superior customer value through information sharing across sales, marketing, and customer service personnel (Morgan and Inks, 2001). Siebel and Malone (1996), for example, reported that economic returns from SFA were 'immediate', and that the business case for its implementation was 'compelling'. Erffmeyer and

Johnson (2001) interviewed informants at forty US manufacturers and service firms to discover their motivations for implementing SFA. The primary motivation was improved efficiency.

Table 1. Motivations for implementing SFA

Motivation	% of sample reporting
Improve efficiencies	72
Improve customer contact	44
Increase sales	33
Reduce costs	26
Improve accuracy	21

Source: Erffmeyer and Johnson(2001)

On the negative side, Industrial studies indicate SFA failure rates between 25% and 60% (Nelson Kristi, 1995), part of the research even attributes the failure of SFA introduction to the money for the introduction scheme and the cost of time. Conner and Rumelt (1991) claimed that users needed over 100 hours' experience with the systems before they could claim to have mastered them. Taylor (1994) found that the average implementation period was 21 months. Engle and Barnes (2000) found that payback periods were in the 6–7-year range. Firms and companies are to face many problems during the introduction of SFA, thus the key factors determining the outcome of the establishment of SFA system have become the research focus to scholars and researchers. Ahearn and Schiliewaert (2001) also found that use of SFA was associated with improvements in reps' performance, as well as selling skills and knowledge. Speier and Venkatech (2002) investigated two different firms where SFA technologies had been withdrawn following implementation. Larpsiri and Speece (2004) uniquely investigated customer response to implementation of SFA by suppliers. Bush *et al*. (2005) set out to understand SFA outcomes by investigation 'factors beyond those typically included in technology acceptance studies'.

3. Methodology

We used case study (Yin, 1994) to collect necessary data in this study. Case research involves the integration of data gained from organizations of similar nature that have SFA system. A case study is "an empirical enquiry that investigates a contemporary phenomenon context that is not clearly evident" (Yin,

1994, p.13). Case studies are the preferred strategy when how and why questions are being posed and the researcher has little control over events (Yin, 1994). Case study research can be used to achieve various research aims: to provide descriptions of phenomenon (Yin, 1994), development theory (Eisenhardet, 1989), and test theory (Sarker & Lee, 2002). It provides evidence for hypothesis generation and for exploration of areas for areas where existing knowledge is limited (Cavaye, 1996).

The case study research method has become the most widely used qualitative research method in information systems research (Orlikowski, 1991) and in operations management (OM) research there is an increasing interest and application of the method among OM researchers (Voss, Tsikriktsis & Frohlich, 2002). For example, Ellram (1996) placed the case study on the logistics scientific agenda. Meredith (1998) points out the unfamiliarity with the nature of theory building using case and field study methods in the OM field. In a recent article, Voss, Tsikriktsis and Frohlich (2002) claim that “case research has consistently been one of the most powerful research methods in operations management” (p.195). Some studies (Voss, Tsikriktsis & Frohlich, 2002) provide guidelines for conducting case study research in operations management. Our study employs multiple cases to increase generality (Yin, 1944). First, we identified four financial firms in Taiwan for the purpose of on-site interviews, observation, and data collection. We collected information regarding the “cross-national” SFA implementation based on archival documentation and interviews with managers who were involved in sales force automation implementation.

4. Discussion

In later 1980s, to sustain their company’s sales volume, most sales employees (Account Officer, AO) had to adopt the service mode that centered on contact with customers, that is, to visit customers with great effort so as to get more information and to grasp more opportunities. However restricted then by the level of information technology, salespersons were unable to effectively and systematically record those complicated files about customers. As a result, it was difficult to say how much important information had been gathered for the company. Furthermore, once a salesperson left the company, he/she would not only break down a key bridge connecting the inside and outside of the firm, but also take away customer information that cherished by the company, which means great risks to this company. Dedicated sales force automation (SFA) applications have offered technological support to salespeople and managers

since the 1980s (Francis, Lawrence & Reiny, 2006). SFA gradually gained attention since early 1990s, similar software aiming at various customers also presented on the market one after another (Colombo,1994). This has facilitated the gradual transformation of the sales mode from a massive direct sales operation to an analytical relationship selling, which means to establish mutually beneficial partnership. In addition, due to the rising awareness of consumers at that time, consumer orientation also helped accelerate the maturity of sales force automation system. See Table 2 for details.

Table 2. The Process of SFA

Period	Late 1980s ——— 2000 ———▶ 2005		
Progressing	Massive direct selling	Data-based Selling	Knowledge-based management of relationship with customers
Resolution	Operative		Analytic
Scheme focus	Idea and production orientation	Databank and material prospecting	Strategy integration and overall solution of company
Data content	Name, address, customer's response, etc.		Population statistics, character analysis and customer's behavior

Source: Jui-Fen Chang, Li-Yuen Chang et al. 2003

Different from the traditional mode of direct customer service, today's service has become electronic thanks to the emerging and application of Internet and the development of information technologies in the 20th Century, it enables the company to understand customers' demand in time so as to raise their degree of satisfaction, to improve their loyalty and to practice the consumer-oriented selling which meets the needs of the time. Customer service management, or CSM, is various systems provided for dealing with different kinds of customers' demand, inquiry and response with an aim to support the company's core products. CSM establishes an information center focusing on customers by useful data and files, with SFA being its most important section among others. CSM's goal is to realize the automation of sales procedures and to improve sales results and effects so as to create sales opportunities and to make sales forecast. To implement a whole set of SFA procedures involves a wide range of human resource, including salespersons, managerial personnel, financial officers and managers of middle and higher levels. SFA establishes for the company a series of uniform and

automatic sales procedures, by which related personnel in the company were guided to perform consistently. Salespersons play a key role in connecting the company with its customers and thus exercise great influence on the implementation and effects of SFA system. In other words, to what degree salespersons accept and exercise the system mainly decides whether the system can be successfully introduced into the company and whether the application of the system is a success. As for senior managerial members of the company, they shoulder such vital responsibilities as to urge the publicizing, inauguration, implementation and examination of the introduction scheme.

When rushing about working for their company, salespersons send back in time to unified databank information of customers' purchasing process and their personal material via Internet by means of various technological devices, such as notebook computers and personal digital assistants. They gather customers' material by frequent contacts with them to continually accumulate sales information which is vital to the company, arrange these material and carry out analysis with information-prospecting techniques to learn customers' demand, and integrate the front end of business and the back end of management to form a systematic platform so as to achieve the interest maximization of knowledge management within the company. Jui-Fen Chang, Li-Yuen Chang et al. (2003) hold that the introduction of SFA requires the integration of company's back-end systems since such integration is helpful for the managers to carry out sales forecasting and stock control. With real-time updated information, managers are able to quickly learn the sales situation and therefore improve the accuracy for market demand forecasting.

From Figure 1 we can see that by means of integrating into back end system, SFA discovers potential customers and confirms new clients, then through various sales channels, assists salespersons in carrying out positive actions, focusing on target customers and sales groups, as well as implementing back end procedure of contacting customers. Once a potential customer makes an order and thus has become a real client of the company, the sales databank will record details of this selling and the customer. Besides, the system can automatically update customer information and sales data, maintaining the accuracy of the databank. Sen-Huang Huang (2004) believes that the introduction of SFA poses an overall influence over the company rather than only focusing on sales and promotion with its core falls on sales databank. Besides, SFA can faithfully record details and data of each contact with customers. This enables the company to effectively grasp the comprehensive conditions of its customers and helps

salespersons to achieve successful deals in various sales activities. Figure 2 shows that sales databank facilitates the closure of an entire sale cycle of operation process. From the perspective of SFA's supporting functions, this cycle can be divided into three phases. First, carry out standardized operation process, which improve the efficiency of business operations as a whole and thus raise the sales volume for the sales staff. Second, enrich the databank, and at the same time, rearrange the company's internal organizing system, (namely, resource planning, supply chain management or service and help center) as well as learn customers' material. Third, make full use of the contact system to interact with customers, exchange information with the company and implement the feedback mechanism.

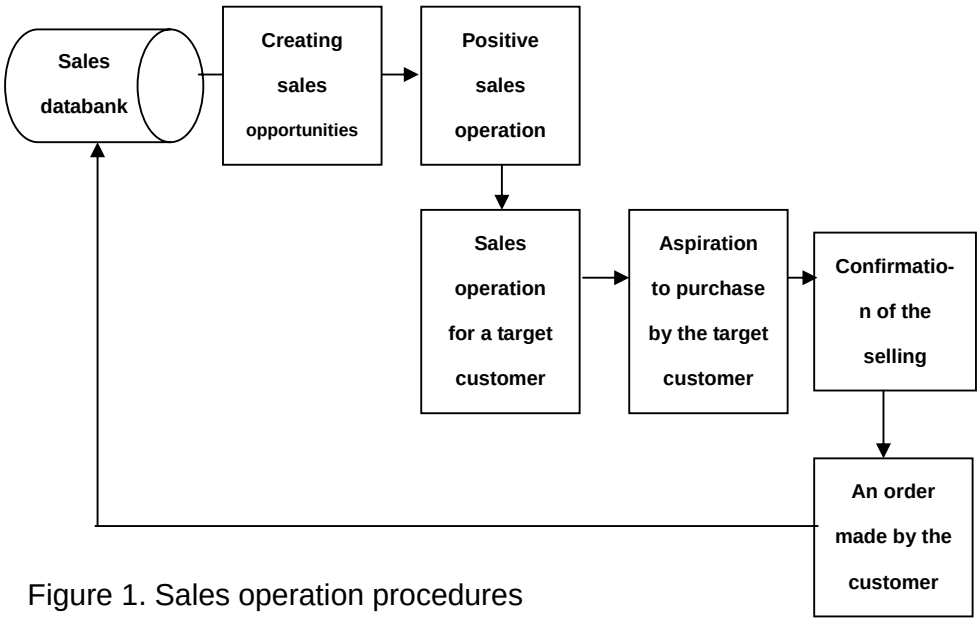

Figure 1. Sales operation procedures

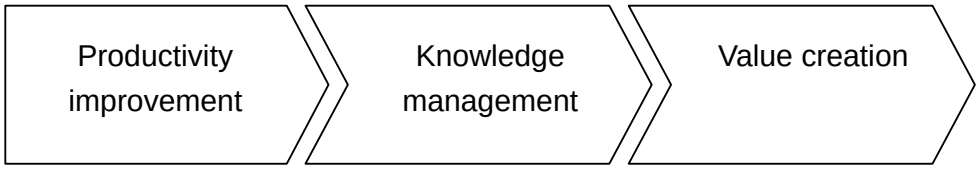

Figure 2. Three-phase process of SFA system

Source: Japan HR Institute (2004)

Improve salespersons' productivity by carrying out standardized sales process

Broaden the company's horizon through sales databank

Carry out information exchange by means of contact system

SFA provides a mechanism for collecting storing, analyzing and distributing

customer-relation data to salespeople and managers. This generally includes both transactional and profiling data about customers but might also extend to market data, competitor profiles, product libraries, pricing schedules and other information. This information can be significant to the promotion of customer orientation (Lambe and Spekman, 1997). Through possibility prospecting, SFA identifies potential customers interested in organizations or products, and makes confirmation with leaders with valuable opinions, such as purchasing managers. Now, together with digital electronic products, SFA's most basic function of contact management such as telephone, fax, email, online dialogue and video contact, enables the system to provide salespersons and customers with interaction mechanism and even helps the former to keep observing the latter for the usage of products. In addition, the system's real-time updating mechanism can further ensure the accuracy, effectiveness and updating capability of the databank. For those executives, comprehensive information provided by the databank helps them understand the sales targets, the sum, the possibility to make a deal, the time to conclude a purchase, the process of a deal and the company's opponents. With these integrated customer information, executives are able to carry out sales forecasting from short-term, medium-term and long-term perspectives and sales controlling, aiming at creating business opportunities. See Figure 3 for SFA's functions.

Table 3. Functionality offered by SFA software

Function category	Function in specifics
Account management	Lead, opportunity and pipeline management
Contact and activity management	Product configuration and visualization
Event management	Sales forecasting
Order and contract management	Territory management
Document management and product encyclopedias	Work-flow and process development
Incentive management	Proposal generation and quotation management

Source: Francis Buttle, Lawrence Ang and Reiny Iriana (2006)

Although the software applications tabled above present a generic set of sales-related functionality, SFA software is also designed for context-specific applications. The designer of SFA system provides tailor-made systematic

framework in accordance with different needs of various industries. Figure 3 presents major SFA appeals and functions of a banking operator in Taiwan. Among these functions, special ones of exclusive service of loan and foreign currency and referral management are introduced by this banking operator, the former aiming at learning enterprises' needs for foreign currency loans at any time, while the latter is a service and supporting system targeting referrals of business opportunities between different subsidiaries.

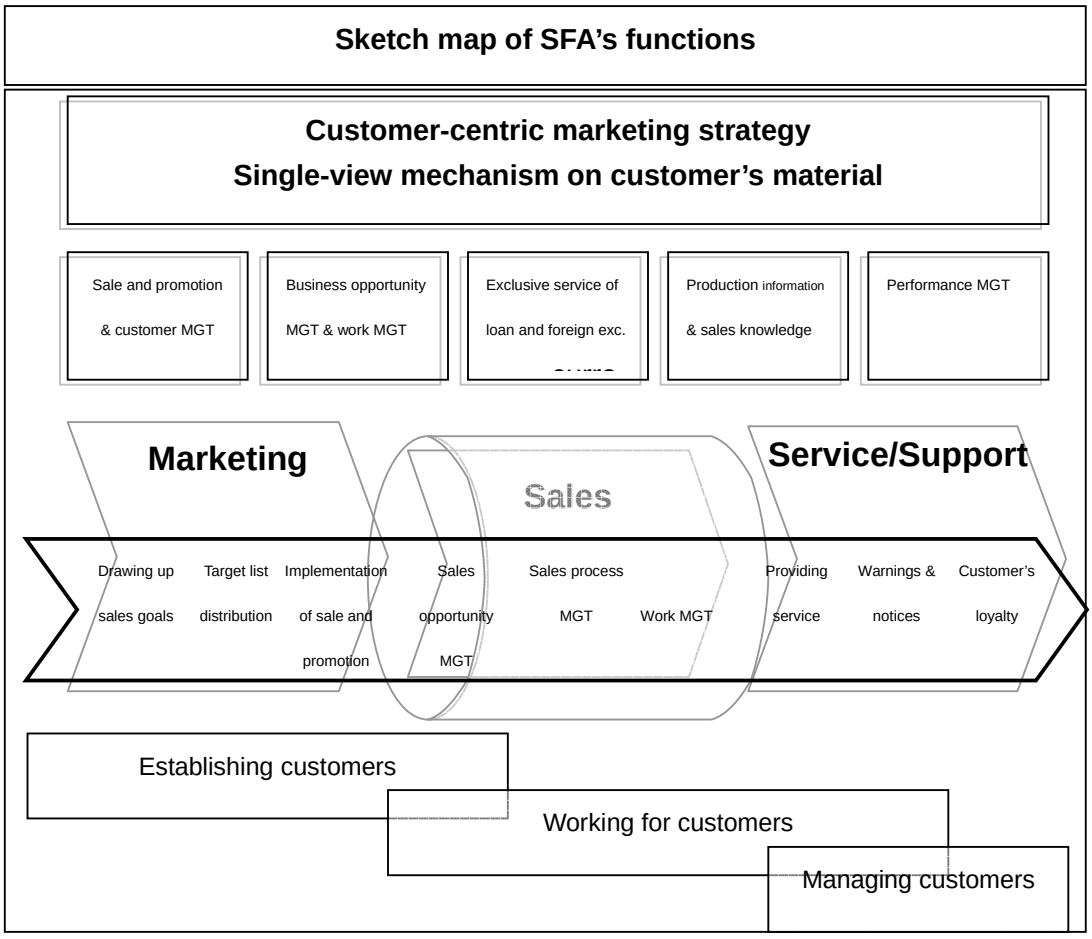

Figure 3 Sketch map of SFA's functions

Source: Shu-Fen Ts'ai (2006)

Table 4. Major SFA appeals and functions for banking industry

Sale and promotion management	Release of sale and promotion information Screening of target customers
Customer management	Real-time single-view of customer accounts Search for VIPs
Business	Business opportunity tracking

opportunity management	Sales process tracking
Work management	Smart sales process Scheduler and calendar
Exclusive service of loan and foreign currency	Presentation of loans and foreign exchange rates
Production information & sales knowledge databank	Provision of financial knowledge, production information and sales terms E-management of production information and subscription sheets
Tracking service	Real-time notice for major events A good command of before-sale and after-sale service
Greetings and care	Automatic contact with customer by the system
Sales process tracking	Information provided to managers for sales process tracking
Sales taget grasping	A good command of sale and promotion Sales forecasting and control

5. Conclusions

In conclusion, adopting SFA can increase financial industry productivity, efficiency, effectiveness, and performance in Taiwan. Nevertheless, organizations spend a lot of money on SFA initiatives, in an attempt to increase acceptance and usage of SFA of enterprise's sales force, management must consider the sales force and the selling process during the beginning stages of enterprise's process and SFA execution changes. Obviously, management and motivation of sales force are likely to be a key component in the future development of SFA. CRM along with SFA demands enterprise's modification enabled by employee support, while SFA could provide an effective enabler for CRM, it can not automate the human aspects of the sales function. Our study illustrates that the Taiwanese financial service industry's present approach to SFA complexity. It follows that future studies of SFA usage should investigate individual-level variables such employees' trust in their organization. Employees' trust is a key variable affecting the productivity, performance, efficiency, and effectiveness of an organization.

References

Ahearne, M. and Schillewaert, N. 2001, ‘The acceptanceof information technology in the salesforce.’ *eBusiness Research Center*, Working paper10–2000, Penn State University.

Bush, A.J., Moore, J.B. and Rocco, R. 2005, ‘Understanding sales force automation outcomes: a managerial perspective.’ *Industrial Marketing Management*, **34**(4), 369–377.

Cavaye,A.L.M. 1996, ‘Case Study Research: A Multi-Faced Research Approach for IS.’, *Information Systems Journal,*(6:227-242).

Colombo, G., W. 1994, ‘Sales Force Automation: Using the Latest Technology to make Your Sales Force More Competitive’, *NY: McGrawHill.*

Conner, K.R. and Rumelt, R.P.1991, ‘Software piracy: an analysis of protection strategies’, *Management Science*, **37**(2), 125–139.

Eisenhardt,K.M.,1989.“Building theories from case study research.’, *Academy of Management Review*, Vol.14 No.4,pp.532-550.

Ellram,L.,1996, ‘The Use of the Case Study Method in Logistics Research.’, *Journal of Business Logistics,*Vol.17 No.2 pp.93-138.

Engle, R.L. and Barnes, M.L. 2000, ‘Sales force automation usage, effectiveness, and cost–benefit in Germany’, England and the United States. *Journal of Business and Industrial Marketing*, **15**(4), 216–242

Erffmeyer, R.C. and Johnson, D.A. 2001, ‘An exploratorystudy of sales force automation practices:expectations and realities’, *Journal of Personal Sellingand Sales Management*, **21**(2), 167–175.

Francis Buttle, Lawrence Ang and Reiny Iriana. 2006, ‘Sales force automation: review, critique, research agenda’, *International Journal of Management Reviews* , pp 213-231

Holt, Stannie. 1998, March 23. ‘Sales force automation ramps up.’ *Infoworld*, Vol.

20 No. 29, p. 38.

Hong-Ju Yang's translation, HR Institute, Japan, 2004, *Customer Relationship Management*, Liqin Management Consultant Co., Ltd.

Jui-Fen Chang, Li-Yuen Chang et al., 2003, *Customer Relationship Management*, Huatai Cultural Undertaking Co., Ltd.

Lambe, C.J. and Spekman, R.1997, 'National account management: large account selling or buyer–seller alliance?', *Journal of Personal Selling and SalesManagement*, **17**(4), 61–74.

Larpsiri, R. and Speece, M. 2004. Technology integration: perceptions of sales force automation in Thailand's life assurance industry. *Marketing Intelligence and Planning*, **22**(4), 392–406.

Meredith,J.,1998. 'Building Operations Management Theory through Case and Field Research.' , *Journal of Operations Management,* Vol.16,pp.441-454.

Nelson, Kristi. 1995, 'Increase Your Odds for Automation Success.', *Sales andMarketing Strategies and News***5,**1–2.

Orlikowski,W.J.,and Baroudi,J.J.,1991, 'Studying Information Technology in Organizations: Research Approaches and Assumptions.' , *Information Systems Research,*pp.1-28.
Relationship Management, John Wiley & Sons Inc.

Rivers, Mark L., & Dart, Jack. 1999., 'The acquisition and use of sales force automation by mid-sized manufacturers', J*ournal of Personal Selling and Sales Management*, Vol. 19 No. 2, pp. 59-73.

Sarker,S.,and Lee,A.S.,2002. 'Using a Positivist Case Research Methodology to Test Three Competing Theories-in-use of Business Process Redesign' , *Journal of Association for information Systems* ,Vol.2 No.7 pp.1-72.

Sen-Huang Huang and Qing-Jui Geng, 2004, "*A Study of Attitude toward Using the Sales Force Automation System of Sales Representative--in Case of Life Insurance Industry*,"2004, Taiwan Conference on Business and Information, Taipei, National Taipei University

Shu-Fen Ts'ai, 2006, ‘SFA, A Great Helper for AO’, business report, No43

Speier, C. and Venkatesh, V. 2002, The hidden minefields in the adoption of sales force automation technologies. *Journal of Marketing*, **66**(3), 98–111.

Taylor, T.C. 1994, ‘Valuable insights on sales automation progress.’ *Sales Process Engineering and Automation Review*, December, 19–21.

Voss,C.,Tsikriktsis,N.& Frohlich,2002. ‘Case research: Case research in operations management.’ , *International Journal of Operations and Production Management*,Vol.22 NO,2 pp.195-215.

Yin,R.K.,1994. Case Study Research: Design and Methods,2nd ed.Thousand Oaks,CA:Sage Publications”.

Zikmund G. W., McLEOD R. Jr., and Gilgert Faye W. 2003, Customer