Applications of MIS in building Electronic Relationship with customers: A case-based study

Arshi Naim

Department of Information Systems, King Khalid University, Abha, KSA

arshi@kku.edu.sa

ABSTRACT

In the recent years Customer Relationship Management (CRM) has made significant step world over for effective aid to serve customers. During last two years pandemic is suffered globally due to novice virus COVID: 19. In this situation Information systems (IS) and E-commerce witnessed not only major growth but also contributed to social and customer benefits. In this paper, one of the important applications of IS, which is Management Information Systems (MIS) is applied for the purpose of achieving CRM electronically. Management Information Systems has strengthened CRM and firms who have enhanced their business through E-Commerce are known as E-CRM. This paper reviews and presents the developments in E-CRM through MIS with one of the example from Dairy Corporation 'Almarai", working successfully in the region of KSA. The research paper explains the theoretical concepts of MIS and E-CRM and and also show through this example that how the firm achieved major benefits by the applications of MIS and how customer satisfaction was achieved by integrating MIS and E-CRM. The results show the variation and gaps before the application of MIS in E-CRM for the firm and after the applications. The annual report shows drastic growth, innovation and increase in customer satisfaction for the firm after the application of MIS in E-CRM.

Introduction

In recent years CRM has made significant step world over as an effective aid to serve customers. Management Information Systems has strengthen CRM in all ways and firms who have enhanced their business online through E-Commerce commonly known as E-CRM, it has consequence as a boom to success. Customer relationship marketing (CRM) is a business process in which client relationships, customer loyalty and brand value are built through marketing strategies and activities. CRM allows businesses to develop long-term relationships with established and new customers while helping streamline corporate performance. CRM incorporates commercial and client-specific strategies via employee training, marketing planning, relationship building and advertising.

CRM's core strength is an ability to glean insight from customer feedback to create enhanced, solid and focused marketing and brand awareness. Key motivating drivers for the development of more innovative CRM strategies are Web technologies and a sharpened global focus on customer loyalty. CRM also provides a way to directly evaluate customer value. For example, a business that is genuinely interested in its customers is rewarded with customer and brand loyalty. Because CRM is mutually advantageous, market share viability advances at a sound pace. Provides cross-selling opportunities, where, based on customer approval, a business may pitch proven marketing or brand strategies to more than one client.

Customer relationship marketing should not be confused with "customer relationship management," a related, but unique concept that shares the acronym of CRM.

There may be hardly any organization which in some way or the other is not using CRM philosophy. As the companies make the transition from a product-only focus to a customer focus, CRM emerges as a technology that brings customers closer to organizations to retrieve information online. Customer Relationship Management is no longer considered a business trend, but an industry standard that is required to secure and maintain competitive advantage. CRM, when correctly and effectively utilized, results in increased profitability and greater customer loyalty, two key needs for any organization. In view of considerable research and developments in web enabled CRM area during last two decades it becomes necessary to take stock of emerging technologies and identify emerging opportunities and bottlenecks in implementation.

In this paper it is attempted to review developments in e-CRM that facilitates online service to customers. Apart from review of technology related developments, the study focuses on identification of thrust areas resulting benefits and implementation strategies. For the purpose of the study we have taken Almari Food Company as an example to show how this firm got success in achieving E-CRM by applying MIS.

I. LITERATURE REVIEW

There have been various attempts at building models of consumer behavior online. Examples include looking at "conversion" of Web surfers to Web customers (Berthon et al. 1996), studying consumer information acquisition and purchase decision online (Alba et al. 1997), and determining reasons for not shopping online (Peterson et al. 1997). Transaction cost theory has been used to explain the impact of IT on market structure (Malone et al. 1987) but also to understand individual consumer behavior. For example, buyer search costs are substantial transaction costs and they can determine buyer behavior and eventually market structures (Bakos 1997). An important question is whether online consumers think and act differently than their offline counterparts. If so, which metrics can we use to capture these differences? For example, online consumers cannot depend on all five senses to make purchases; instead, they must rely on limited product representations such as photographs and text descriptions. Yet, studies have shown that the representation of the product online, indeed the overall quality of the shopping experience, matters for both attitude towards shopping online as well as intention to buy (Burke et al. 1992, Jarvenpaa and Todd 1997a and b, Nowlis and McCabe 2000, Novak et al. 2000). NEOs, however, cannot rely on enticing product displays, exciting music, and "hip" clientele to convince their customers to buy. Instead, they may depend on well designed Web pages and powerful Web features, such as recommender systems and one-click checkouts.

The online consumer may also have a different social and work environment than the offline consumer. For example, intention to buy online is influenced by the level of the consumer's lack of leisure time, as in offline shopping, but also by the level of their wired lifestyle (Bellman et al. 1999). A key difference between online and offline consumer behavior is that the online consumer is generally more powerful, demanding, and utilitarian in her shopping expeditions. As a result, customer loyalty on the Web is low overall (Morrisette et al. 1999); although, as in the physical world, it is influenced by the availability of good, relevant content in an enjoyable context (Rice 1997, Eighmey 1997, Eighmey and McCord 1998). The locus of power seems to be shifting from the vendor to the consumer (Raman 1997) who does not favor traditional advertising and promotions online (Maignan and Lukas 1997). Research has also shown that certain site features, such as the availability of a FAQ section or promotions at the Web store entrance, can influence both traffic on the Web site and overall sales (Lohse and Spiller 1998a and b).

Unlike offline consumers, online consumers are concerned with those risks inherent in buying on the Web, risks such as credit card fraud and not receiving the right products (Bhatnagar et al. 2000). Perceived risk of online shopping and perceived ease of use of the Web site have been shown to influence attitude towards online purchasing (Heijden et al. 2001). The impact of perceived ease of use, however, seems to vary depending on the type of task the consumer is undertaking. Its effect is more significant when consumers are using a Web site to inquire about products rather than to purchase them (Gefen and Straub 2000). Online consumers clearly share some characteristics of their offline counterparts but also have unique needs and concerns that reflect their online environment. Our study examines some of those similarities and differences in B2C commerce. We concentrate on new customers of a Web store and we measure their emotional and cognitive responses to determine what influences their intention to return and unplanned purchases. This is the basic homological network that will allow us to test the metrics developed for the study.

II. Discussion

This Study is a pilot research based on secondary data. For results a major dairy product's firm has been accounted namely Almarai foods in KSA. Annual reports are interpreted and inferences are made on various E-CRM standards and how this firm has been implementing in its respective ventures for consumers. Due to cultural hindrances personal in-depth interview could not be conducted. Data collected from financial journal was computed through Ratio Analysis and for comparative analysis Thurstone scale was used.

Three E-CRM parameter composed through MIS were used to know how this dairy firms got increase in customer retention and sales. Major source of data collection was through Almarai KSA's website.

Almarai During the early 1990s, Almarai entered a period of restructuring and reinvestment that took it from a decentralized structure to a centralized structure. The aim was to establish as a low-cost producer so that the consumers can enjoy high-quality products at an affordable price.

In line with this model, Almarai replaced five decentralized processing plants with its first central processing plant. It also replaced ten small decentralized dairy farms with four large dairy farms in Al Kharj in the central region.

In late 2005, Almarai commissioned a second, larger central processing plant, incorporating a new cheese plant. It also commissioned two new super-farms. In the same year, it was moved from being a privately owned company to a publicly listed company and now it has around 50,000 shareholders. At the end of 2016, its market capitalization exceeded SAR23 billion. Paving the way for geographical expansion beyond GCC, the firm pooled its respective expertise in dairy and juice with PepsiCo. In 2009, it also launched a joint venture with the International Dairy and Juice (IDJ) Company. Today, Almarai is capable of delivering high quality of products to more than 100,000 customers within the Gulf Cooperation Council (GCC), Egypt and Jordan daily. Figure 1 shows the product mix of Almarai

Figure1. Product Mix Almarai

The firm analyzed customer's survey and reviews on social media and tried to innovate and add value to its product mix. Almarai has always focused on values for price and used MIS for evaluating customer willingness to pay for the dairy products. Figure 2 shows the customer choice for Almarai over other competitive brands.

Figure2. Percentage of Customer Choice for Almarai
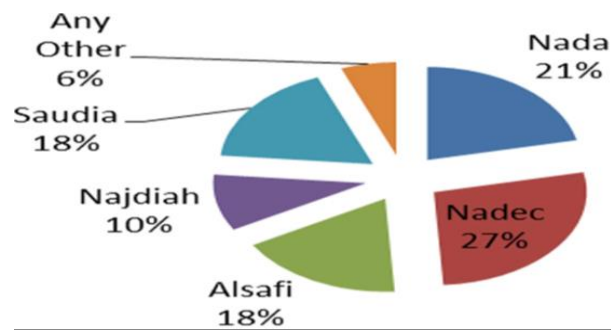
The results clearly show that none of the competitor has major preference over Almarai. MIS conducted a survey to show the results of best brands in KSA, this survey was not based on product related firms rather over all comparison in terms of organizations' contribution for benefitting society especially in the amid of COVID:19. Figure 3 presents the success of Almari and provide evidence of success use of MIS in E-CRM.

Figure 3. Best Brands in the Saudia Arabia in the year 2020

| BEST BRANDS 2020 IN SAUDI ARABIA		
Rank	Brand Name	Score
1	Almarai	50.0
2	Al Baik	49.1
3	Saudia (Saudi Airlines)	47.5
4	mada	43.7
5	YouTube	43.3
6	WhatsApp	41.7
7	Google	41.7
8	Dettol	41.1
9	Apple	40.8
10	Samsung	39.6

Relevance of social media cannot be overlooked in the digital scenario, therefore Almari measured its performance on facebook, and Table 1 shows the list of features applied for the appraisal.

Table 1. Evaluation of facebook Page for CRM

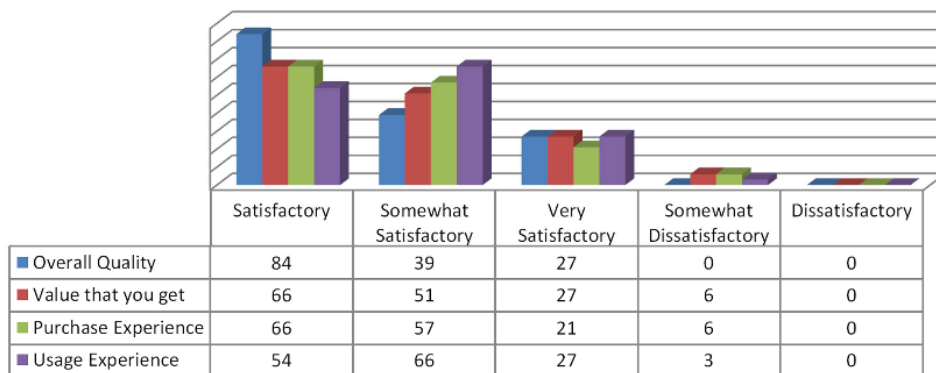| Features used for evaluation of CRM on Facebook |
|---|
| Front Page |
| About |
| Activity |
| Response |

Firms from different sectors are selected to show the results of features considered. It is important to note that these firms are not directly competitors of the firm Almarai. Figure 4 shows the results from facebook as major success for all the features for CRM.

Figure 4. Evaluation of Facebook for selected firms
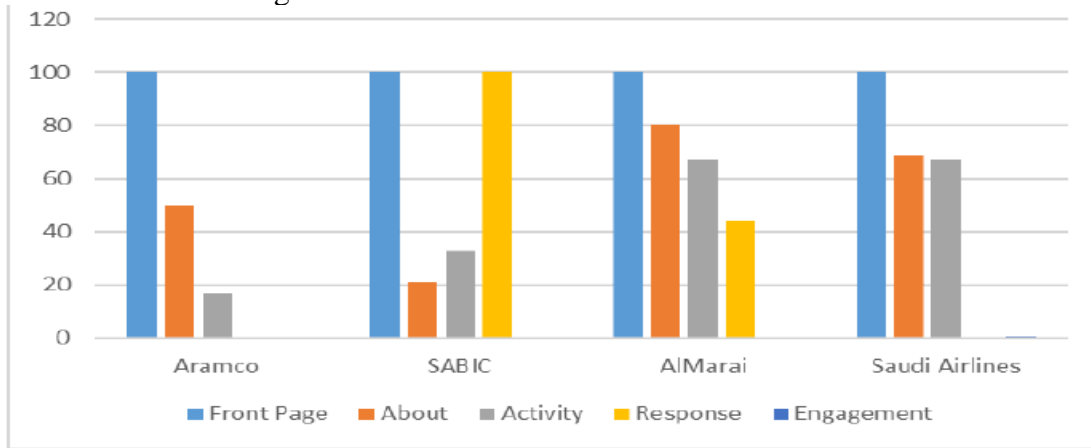
For measuring CRM some important factors have to be evaluated, Almarai applied MIS to know about customer preferences and used E-CRM for its customers and the results show high satisfaction levels. Figure 5 shows the increase in satisfaction for Almarai products offering and value for money. All the factors are showing high scores for the ECRM.

Figure 5. Performance of products through satisfaction

	Satisfactory	Somewhat Satisfactory	Very Satisfactory	Somewhat Dissatisfactory	Dissatisfactory
Overall Quality	84	39	27	0	0
Value that you get	66	51	27	6	0
Purchase Experience	66	57	21	6	0
Usage Experience	54	66	27	3	0

Almarai has been a leader in applying new technologies and MIS for managing and delivering the services to the customers. Figure 6 show the areas contributing for the success of MIS for Almarai.

Figure 6. Consultation field of MIS for Almarai

Figure 5 presents the contribution of different levels of Almarai to enhance the image and quality of services for the firm. In the current scenario with the application of MIS, the firm is able to offer excellent product quality, strengthen the brand image, achieve market leadership and acquire world- class capabilities. Figure 6 shows a simple list of achievement of Almrai for ECRM.

Figure 6. Success factors of Almarai

MIS in general scenario works for facilitating the organizations for achieving strategic leadership and to accomplish this the firms have to perform many successful tasks on various levels. Out of these the most important is to achieve customer satisfaction and build CRM. Almrai has also applied MIS for achieving strategic leadership and works for all the levels. Past 5 years Almarai focused more on ECRM for customer satisfaction. Figure 7 shows the implication of MIS for Almarai for strategic leadership and providing improved and innovated products for ECRM.

Figure7. MIS for Almarai for continuous improvement and innovation

III. RESULTS

For Almarai foods results showed 25% of increase in sales from 2004 to 2009 and continued till 2013 and after implication of E-CRM standards the firms show 50% growth. It is noteworthy here that Almarai is the largest food company in KSA therefore it should have applied Multichannel E-CRM, since 2020 the firm has started to apply and future results will show the real impact but for now the firm is having increasing curve for sales and ECRM. till the date it is still on the way to develop good E-CRM unit for the firm. Like its Strategic Alliance Pepsi Food in US has developed multichannel E-CRM and showed drastic sales and customer satisfaction too.

Back in 2009, Almarai had started an initiative called "Almarai for Innovation Management" which is at the center of its innovation activities. Almarai's research and development efforts annually result in testing of 630 experimental products each year with 65 products under development at all times throughout the year. More than 60 new products were launched in 2018 & 2019 under different categories as follows:

IV. CONCLUSION

E- CRM is no longer considered a business trend, but an industry standard that is required to secure and maintain competitive advantage and when correctly utilized, it results in increased profitability and greater customer loyalty. E-CRM got Amul India to achieve highest market share and Almarai, KSA has shown raise in sales and consumer retention after E-CRM implementation.

ACKNOWLEDGMENT

REFERENCES

1. Talón-Ballestero, P., González-Serrano, L., Soguero-Ruiz, C., Munoz-Romero, S., & Rojo-Álvarez, J. L. (2018). Using big data from customer relationship management information systems to determine the client profile in the hotel sector. Tourism Management, 68, 187-197.
2. Heim, G. R., Meile, L., Tease, J., Glass, J., Laher, S., Rowan, J., & Comerford, K. (2005). Experiential learning in a management information systems course: Simulating IT consulting and CRM system procurement. Communications of the Association for Information Systems, 15(1), 25.
3. Kim, H. W., & Pan, S. L. (2006). Towards a process model of information systems implementation: the case of customer relationship management (CRM). ACM SIGMIS Database: The DATABASE for Advances in Information Systems, 37(1), 59-76.
4. Ku, E. C. (2010). The impact of customer relationship management through implementation of information systems. Total Quality Management, 21(11), 1085-1102.
5. Chen, Y., & Li, L. (2006). Deriving information from CRM for knowledge management—a note on a commercial bank. Systems Research and Behavioral Science: The Official Journal of the International Federation for Systems Research, 23(2), 141-146.
6. Arab, F., Selamat, H., & Zamani, M. (2010, September). An overview of success factors for CRM. In 2010 2nd IEEE International Conference on Information and Financial Engineering (pp. 702-705). IEEE.
7. Singh, A., & Hagahmoodi, S. O. (2017). Performance Measurement of Almarai Products and Customer Satisfaction. International Journal of Management Science, 4(1), 1-12.
8. SADI, M. A. (2006). Case study: marketing perspective of Almarai dairy food company. International Journal of Management Cases, 9(1), 42-50.
9. Lotayif, M. S. (2017). Causality Relationships between Main Branding Variables and International Marketing Strategy: Evidence from MNCs in GCC Market. International Journal of Business and Management, 12(1).
10. Mohamad, K. A., & Asfour, A. M. (2020). Is the Business in Saudi Market Sustainable? Case Study of Almarai. IIUM Journal of Case Studies in Management, 11(2), 7-14.
11. Arshi Naim. (2021). Application of Quality Matters in Digital Learning in Higher Education. Texas Journal of Multidisciplinary Studies, 1(1), 3–12. Retrieved from https://zienjournals.com/index.php/tjm/article/view/11
12. Osland, A. (2021). Saudi Arabia: Almarai and Vision 2030. SAGE Publications: SAGE Business Cases Originals.

13.   Khan, N., Naim, A., Hussain, M. R., Naveed, Q. N., Ahmad, N., & Qamar, S. (2019, May). The 51 v's of big data: survey, technologies, characteristics, opportunities, issues and challenges. In Proceedings of the international conference on omni-layer intelligent systems (pp. 19-24).

14.   Naim, A., & Alahmari, F. (2020). Reference model of e-learning and quality to establish interoperability in higher education systems. International Journal of Emerging Technologies in Learning (iJET), 15(2), 15-28.

15.   Naim, A., Khan, M. F., Hussain, M. R., & Khan, N. (2019). "Virtual Doctor" Management Technique in the Diagnosis of ENT Diseases. JOE, 15(9), 88.

16.   Naim, A. (2020). Realization of diverse Electronic tools in learning and teaching for students with diverse skills. Global Journal of Enterprise Information System, 12(1), 72-78.

17.   Naim, A., & Bashir, A. (2016). Application of Quality Matters Standards on Supportive and Online Module in Higher Education Program. Research Revolution, 5(3), 6-12.

18.   AL Zubaidi, A., & Nobanee, H. (2020). Performance Analysis of Almarai. Haitham, Performance Analysis of Almarai (August 16, 2020).

19.   Naim, A., Alahmari, F., & Rahim, A. (2021). Role of Artificial Intelligence in Market Development and Vehicular Communication. Smart Antennas: Recent Trends in Design and Applications, 2, 28.