The Link between Innovation and Customer Relationship Management: The Analysis of WEB Discourse of Multinational Companies

Ioan-Alexandru RÎPA[1]
Luminița NICOLESCU[2]

Abstract

Multinational companies (MNCs) compete each other in a very tough business environment. They try to gain new customers while maintaining the old ones and improving the relationships with them. In order to achieve customer satisfaction and loyalty, MNCs develop strong customer relationship management (CRM) strategies and techniques to further enhance the existing collaborations. In addition, companies race each other in innovations. In pursuance of providing new or enhanced products to their customers, MNCs innovate continuously. A high degree of innovation preserves customers' interest.

The current paper aims to investigate the potential connection between innovation and customer relationship management at the level of top multinational companies activating in consumer goods industry. The methodology employed is documentation based on the analysis of the web sites discourse of top MNC, followed by testing the correlation between CRM and innovation. Results show that there is a rather weak, negative correlation between CRM dimensions and innovation types in the studied MNC, with only few positive associations. Therefore, practitioners need to adapt their business strategies individually when planning to innovate or to implement CRM at company level.

Keywords: *innovation, customer relationship management, multinational companies, consumer goods.*

JEL classification: F23, O30

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1. Introduction

Multinational companies are constant players into today's economic scene. They play a very important role in the society by directly influencing citizens lives. They cannot be ignored or avoided (Haller, 2016). Their presence in various markets can be easily observed as they compete to gain potential customers. Their competitiveness is focused on satisfying clients. Therefore, each company has a particular high interest in strengthening the relationships with the clients. Companies do so through a very well-prepared CRM strategy. Moreover, to catch customers'

[1] Ioan-Alexandru Rîpa, Bucharest University of Economic Studies, alexx.ripa@gmail.com
[2] Luminița Nicolescu, Bucharest University of Economic Studies, luminita.nicolescu@rei.ase.ro

attention and to offer continuous improvements, companies regularly innovate their products and services.

Frow & Payne (2009, p. 11) define CRM as "a cross-functional strategic approach concerned with creating improved shareholder value through the development of appropriate relationships with key customers". Loyal customers are expected to come back and to do several purchases. Loyal customers are the most aware ones about promotions and require resources from the company in order to manage the interactions with them. CRM is responsible for segmenting customers and providing different interaction strategies with each customer category (Kumar & Reinartz, 2018). From a technological point of view, CRM includes the IT capabilities of building data bases and facilitating sales force automation (Petrovic, 2020). The truth is that CRM is highly related to business practice (Buttle & Maklan, 2015) and in the long-term, companies can register profit if CRM and innovations are paired (Guerola-Navaro et al., 2021b).

According to OECD (2005, p. 46) innovation is "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations". Similar to CRM, innovation also requires access to technology. Somehow, IT is a powerful resource in business environment (Baden-Fuller & Haefliger, 2013). Although innovation demands that companies hold technological know-how and resources, innovation is traditionally considered an area owned by human population (Amabile, 2019). Innovation can be radical or incremental. Radical innovation requires that an organization develops something entirely new, while incremental innovation is related to minor changes that are done step by step. Overall, a company is innovating both radically and incrementally in a continuous process (Kahn, 2018). The innovation capacity can be developed in an organization through the promotion of innovation as a key factor for success and differentiation (Canet-Giner et al., 2020).

Under the presumption that companies' success is influenced by the degree of innovation, but also by the CRM implementation, it is important to understand if there is a link between innovation and CRM at company level. Therefore, the current study tries to answer the following two research questions:

- RQ1: How many innovation types and CRM dimensions are present at consumer goods multinational companies' level?
- RQ2: Is there a correlation between CRM and innovation in consumer goods multinational companies?

The current paper is based on two previous analyses: one on CRM dimensions present in top ten consumer goods MNCs (Rîpa & Nicolescu, 2023a) and one of the innovation types existent in top ten consumer goods MNCs (Rîpa & Nicolescu, 2023b).

Further on, the paper contains the following sections: the first upcoming section presents the theoretical models of innovation and CRM used in order to assess the existence of the two concepts at the level of top ten consumer goods multinational companies. The third section reveals the methodology of the

research. Next, the results of the study are presented. Last, the fifth section showcases the conclusions of the paper.

2. Theoretical models

2.1 Innovation - theoretical model

The theoretical model used in the current paper to assess innovation's presence at the level of multinational companies from consumer goods industry is the one developed by OECD (2005). This model is based on four types of innovation: product innovation (PDTI), process innovation (PCSI), marketing innovation (MI) and organisational innovation (OI).

Product innovation can easily offer competitive advantage for a company, by developing new products or features that satisfy customers more than competition's products (Kuncoro & Suriani, 2018). This type of innovation is considered to be the most frequent one used by organizations (Edwards-Schachter, 2018). According to OECD (2005), companies can perform product innovations either by launching new products on the market or by improving the existing ones.

According to Chang et al. (2021), process innovations are able to boost the economic efficiency of the organization. Process innovation can trigger a cost reduction in the production of goods or may generate performance improvements such as capacity increase, more flexibility or better quality (Hervas-Oliver et al., 2014). Consequently, process innovation has the capacity to enhance the production methods (OECD, 2005).

Marketing innovation is widely seen in the literature as too tactical to be able to make an impact in a company's value due to the high interest in investigating technological advancements on the value of the firm. Yet, practitioners focus on marketing innovation and made a growing trend of it (Tang et al., 2021). This type of marketing is based on innovation for packaging, price, promotion and placement (OECD, 2005; Purchase & Volery, 2020). Therefore, marketing innovation is in a positive relationship with product innovation in the sense that one generates the other (Aksoy, 2017).

Based on OECD (2005, p. 51), organisational innovation "is the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations". Table 1 presents the innovation types used in the current study.

Innovation types in OECD model

Table 1

Product Innovation (PDTI)	Introduction of a new product
	Introduction of a significantly improved product
Process Innovation (PCSI)	New production or delivery method
	Significantly improved production or delivery method
Marketing Innovation (MI)	Changes in product packaging
	Changes in product placement

	Changes in product promotion
	Changes in product price
Organisational Innovation (OI)	Changes in business practices
	Changes in workplace organisation
	Changes in external relations

Source: adaptation from OECD (2005, pp. 47-52) used in Rîpa & Nicolescu (2023b)

2.2 CRM - theoretical model

The theoretical model used in the current paper to assess CRM's presence at the level of multinational companies from consumer goods industry is the one developed by Sin et al. (2005). This model is based on four dimensions of CRM: key customer focus (KCF), CRM organization (CRMO), knowledge management (KM), technology-based CRM (TCRM).

Key customer focus requires that a company is extremely customer-centric by on-going improving its products for the key customers through customization (Sin et al., 2005). Customer centricity has become a recognition for corporate success (Kreuzer et al., 2020). For the former mass markets the product-oriented strategies worked very well by meeting a homogenous demand from the customers. Now, it is commonly agreed that companies need to shift from a product-oriented approach to customer-oriented one (Moormann & Palvölgyi, 2013).

CRM organization directly addresses the way companies are organized and firm's processes are handled (Sin et al., 2005). According to Sofi et al. (2020) CRM has to be implemented at all organisational levels. The companies' structure has to be re-shuffled in order to reflect customer approach at all levels and during all processes (Mohammad et al., 2013).

The high importance of knowledge among companies has generated interest among practitioners and academics for the knowledge management dimension (Ode & Ayavoo, 2019). Muhammed & Zaim (2020) demonstrated that knowledge management success directly affects innovation performance. Based on Sin et al. (2005), knowledge management encompasses three facets: knowledge learning/generation, knowledge sharing and knowledge responsiveness. Rezaei et al. (2021) affirm that the three facets mentioned above positively impact innovation.

Technology-based CRM is a key tool for employees to respond to customers' requests individually by collecting, storing and analysing customer data (AlQershi et al., 2020). Many scholars take into consideration technological aspect when defining CRM (Mekhum, 2020), some even postulating that CRM and technology are one and the same (Soltani et al., 2018). Anyhow, technology-based CRM is often met as a practice among companies (Guerola-Navarro et al., 2021a).

Tabel 2 illustrates the CRM dimensions used in this study.

CRM dimensions

Table 2

Key customer focus (KCF)	Customized offerings via customer ongoing dialogue
	Customized services and products to key customers
	Effort to find out what key customers need
	Product / service modified to meet customer needs
CRM Organization (CRMO)	Sales and marketing expertise and resources
	Trainings for acquiring and deepening customer relationships
	Business goals based on customer acquisition, development, retention and reactivation
	Employee performance based on meeting customer needs
	Company structure designed around customers
Knowledge management (KM)	Employees' willingness to help customers
	Knowledge learning to understand customer needs
	Ongoing, two-way communication channels
	Prompt services from employees
Technology-based CRM (TCRM)	Technical personnel for CRM support
	Software tools
	Hardware tools
	Individual customer information at every point of contact
	Comprehensive database of customers

Source: adaptation from Sin et al. (2005, pp. 1287-1288) used in Rîpa & Nicolescu (2023a)

2.3 CRM – Innovation relationship in literature

The relation between CRM and innovation depends on plenty other aspects. The geographical region where studies are performed and the industries in which analysed companies activate are very important factors. Moreover, the theoretical models applied for CRM and innovation can strongly influence the result of the studies. Still, many authors have identified a positive relationship between CRM and innovation. Guerola-Navarro et al. (2021b) concluded that companies adapt easier to a dynamic business environment if they adopt CRM as a key tool in implementing process innovation. Lin et al. (2010) demonstrate that only some CRM activities can contribute to innovation, therefore companies need to examine carefully which innovation capabilities they want to possess. In this way, they will be able to understand what CRM facets they need to develop. Pedron et al. (2018) explain how CRM can foster the establishment of innovation capabilities and suggest the integration of dynamic capabilities into the process. Battor & Battor (2010) investigated how CRM and innovation can directly impact organization's performance and found out that CRM can indirectly influence firm's performance through the implication of innovation within the company. Their findings are supported also by other authors such as Altarifi (2020).

3. Methodology

The purpose of this paper is to further extend the researches started by Rîpa and Nicolescu on CRM (Rîpa & Nicolescu, 2023a) and innovation (Rîpa & Nicolescu, 2023b). The two prior studies assess the presence of CRM dimensions and innovation capabilities at the level of top ten consumer goods companies based on annual revenue, as ranked by Consumer Goods Technology. To do the assessments, the official websites of the companies were analysed.

The current study builds on the CRM and innovation presence assessment at the level of top ten multinational companies in consumer goods industry. Consequently, the study aims to answer to the following research questions: *RQ1 - How many innovation types and CRM dimensions are present at consumer goods multinational companies' level?* and *RQ2 - Is there a correlation between CRM and innovation in consumer goods multinational companies?*

The objectives of the research are: a) to identify how many types of innovation and how many dimensions of CRM are present at the level of top consumer goods multinational organizations; b) to test the correlation between innovation and CRM based on the evidence of their existence on top consumer goods MNCs' websites.

Accordingly, the following hypothesis is formulated: *Innovative companies have more developed CRM activities.*

The present paper uses two methods to respond the research questions. The first method is qualitative and focuses on the web analysis of top ten consumer goods companies in order to identify CRM and innovation presence at their level. For this, results from previous studies on CRM (Rîpa & Nicolescu, 2023a) and innovation (Rîpa & Nicolescu, 2023b) are considered and further used in the present study. The second method is quantitative and investigates the correlation between CRM dimensions and associated activities and innovation types. The Pearson correlation is used by calculating the correlation coefficient *r*, that was designed by Karl Pearson. Scatter diagram is also used as it represents one of the basic tools used in statistical methods (Asuero et al., 2006). The source of the data for the correlation analysis is represented by the descriptive analysis done on CRM (Rîpa & Nicolescu, 2023a) and innovation (Rîpa & Nicolescu, 2023b). The CRM analysis was done on top ten consumer goods companies based on 2021 revenue, while the innovation analysis was done on top ten consumer goods companies based on 2022 revenue. Given the fact that the two analyses were done on different years, only nine out of ten companies were common for both studies. The current research focuses on the nine companies that were present in top ten both in 2021 and 2022 based on annual revenue. They are comprised in Table 3.

4. Results

4.1 Company level analyses

The level of presence of the CRM dimensions and their included activities and the type of innovation is synthetically presented in Table 3.

CRM dimensions & innovation in top consumer goods companies

Table 3

	CRM dimensions					**Innovation types**				
	KCF (4)	CRMO (5)	KM (4)	TCRM (5)	Total (18)	PDTI (2)	PCSI (2)	MI (4)	OI (3)	Total (11)
Nestlé SA	3	2	3	4	**12**	2	2	1	3	**8**
PepsiCo	3	2	3	3	**11**	2	2	2	2	**8**
LVMH	2	0	2	0	**4**	2	2	1	3	**8**
P&G	3	3	3	4	**13**	2	2	1	2	**7**
JBS S.A.	3	0	2	0	**5**	2	2	1	3	**8**
Unilever	3	2	3	3	**11**	2	2	3	2	**9**
ABInBev	3	1	2	3	**9**	2	2	3	3	**10**
Tyson Foods	3	1	2	1	**7**	2	2	1	3	**8**
Nike, Inc.	4	3	4	4	**15**	2	2	1	2	**7**
Total	**27**	**14**	**24**	**22**	**87**	**18**	**18**	**14**	**23**	**73**

Source: computed based on descriptive research presented in Rîpa & Nicolescu (2023a) and Rîpa & Nicolescu (2023b)

There are various scores for CRM activity level, ranging from 4 to 15 being present, out of a total of 18 CRM activities possible. The leading company in CRM activities is Nike, that included on its web site details on 13 out of the total of 18 possible CRM activities considered according to the model of Sin et al. (2005). Other companies with high level of CRM, above the average number of activities are Nestle (12), PepsiCo (11), P&G (13) and Unilever (11). For innovation types and their subdimensions, the analysed companies registered close scores, lowest being 7 (P&G and Unilever) and highest being 10 (ABinBev), out of a total of 11 possible according to the OECD model. The highest score for innovation types present on the website discourse is 10, being owned by ABInBev, which in terms of CRM scores in the middle (9). On the other hand, companies with the lowest score on innovation, P&G (7) and Nike (7) are ones that are the most likely to implement CRM activities.

4.2 Correlation analysis

The correlation between CRM dimensions and associated activities and innovation types taking into consideration each CRM activity presence with each innovation type presence at the level of the analysed companies is illustrated in Figure 1.

	KCF (4)	**CRMO (5)**	**KM (4)**	**TCRM (5)**	PDTI (2)	PCSI (2)	MI (4)	OI (3)
KCF (4)	1							
CRMO (5)	0,663489	1						
KM (4)	0,707107	0,886186	1					
TCRM (5)	0,6	0,91414	0,777817	1				
PDTI (2)	**0**	**0**	**0**	**0**	1			
PCSI (2)	**0**	**0**	**0**	**0**	0	1		
MI (4)	**0**	**0,027864**	**-0,06682**	**0,236228**	0	0	1	
OI (3)	**-0,47434**	**-0,79263**	**-0,78262**	**-0,60083**	0	0	-0,20917	1

Figure 1. correlation between CRM dimensions and types of innovation

There is a positive, weak relationship between technology-based CRM and marketing innovation (r=0,236228), therefore companies that implement marketing innovation practices may have more developed technological CRM activities. Another positive relationship, yet very weak, (r=0,027864), can be observed between CRM organisation and marketing innovation. According to this, companies that use more often marketing innovation practices can also have a higher tendency to develop their organisational CRM, but given the very weak relationship between the two variables this cannot be taken for granted by practitioners.

The relationship between knowledge management and marketing innovation is very weak and negative (r= -0,06682) and illustrate that the more innovative from marketing perspective a company is, less knowledge management practices are required by the employees. The most powerful, but negative relationships are between CRM organisation and organisational innovation (r= -0,79263) and among knowledge management and organisational innovation (r= -0,78262). Therefore, it can be stated that more innovative companies from organisational perspective have less organisational CRM and less knowledge management implemented at the level of organisation. The negative and strong relationship between technology-based CRM and organisational innovation suggests that companies with high organisational innovation presence require less technological CRM. Organisational innovation has also a negative and moderate relationship with key customer focus, meaning that the more organisational innovation is present in the company, the less focus on core customers employee should have.

There is no relationship between any of the CRM dimensions and product innovation. The degree of product innovation is not related to any of the CRM dimensions used in this study. Similar, the correlation between process innovation and each CRM dimension individually is 0. Consequently, the innovation level within the company and each of the CRM dimensions independently are not influencing each other. Also, there is no association between marketing innovation and key customer focus.

The correlation between CRM dimensions and associated activities and innovation types taking into consideration total score for both variables is represented in Table 4.

Correlation between CRM dimensions and innovation - total level

Table 4

	Total CRM	**Total Innovation**
Total CRM	1	
Total Innovation	-0,3148336618	1

Source: authors

The correlation between total level of CRM dimensions and total level of innovation is depicted by r = -0,3148336618. The value of r between 0 and -1 reveals a negative type of correlation. Also, the r level between -0.3 and -0.5 involves a moderate, close to weak relationship. According to this and the previous results, the hypothesis is not tested: more innovative companies do not involve more CRM activities to happen. Figure 2 confirms the negative, moderate to weak correlation between total CRM dimensions present and total innovation types present in the analysed companies.

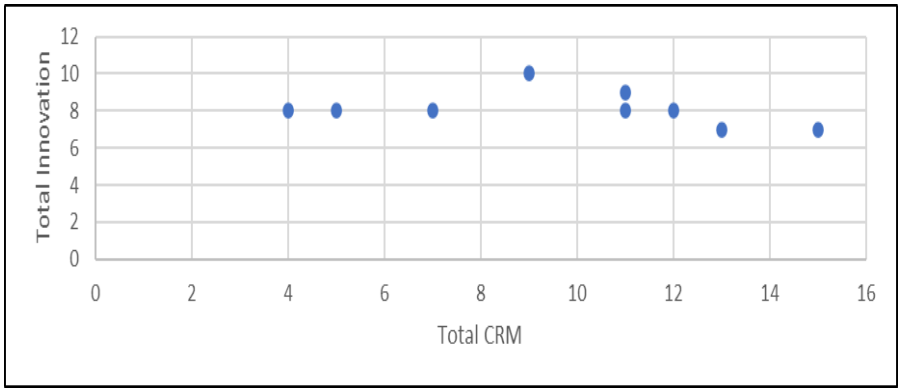

Figure 2. Scatter diagram between total CRM dimensions and total innovation types present at company level

5. Conclusions

The only positive correlations are between technology-based CRM and marketing innovation on one hand and CRM organisation and marketing innovation on the other. Technology-based CRM and marketing innovation have a weak relationship and CRM organisation and marketing innovation have a very weak, close to zero relationship. Therefore, companies which proceed in marketing innovation have a tendency of focusing on technological CRM implementation, but can also take into consideration improvements in CRM organisation.

There is a rather negative correlation between CRM dimensions and organisational innovation. According to this finding, a company with higher organisational innovation requires less presence of each CRM dimension. It is not mandatory that companies which innovate in terms of products and process also involve in any kind of CRM activities as there is no relation between product or process innovation and CRM dimensions.

On the other hand, the overall correlation between all CRM dimensions and all innovation types at company level indicates that more innovative companies require less CRM activities. Therefore, the hypothesis is not tested.

The current paper has contributions to the academic literature on the relationship between innovation and CRM at the level of international organisations. While other studies identified a positive relationship between the two variables, the current study illustrates that for top consumer goods companies in the world being more innovative does not require to implement more CRM activities. The results might be influenced by the methodology employed, based only on the website discourse of companies. The limitation of the study consists in the fact that only secondary data were used to test the hypothesis.

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