



BANKING INNOVATION PROCESS: MAPPING NEW PRODUCT DEVELOPMENT

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Abstract

This paper aims to analyze the role of innovation and the understanding of new product development process in international banks working in Brazil. Multiple case study methodology was the research approach on three major international Banks in the Brazilian Financial Industry. The results show that innovation is not completely understood by some of the Banks. Also, after the research was concluded, the authors could map and design a 5 stage process reflecting these three case studies, concerning new product development process. To contribute with the understanding of New Product Development process in international banks in Brazil. Also increase the literature related to New Product Development and innovation in Banking Industry.

Key Words: Product Development, Innovation, Bank, Financial Industry.

1. INTRODUCTION

The banking industry, like many other industries, is facing a rapidly changing market, new technologies, economic uncertainties, increase of competition and more demanding customers that have created an unprecedented set of challenges (Lovell, 2001, Diniz et al, 2016). As well as globalization that is bringing a crescent increase of competition and at the same time a decrease in physical borders, as well as the approach among producing and consuming markets, forcing organizations that want to have success seeks new alternatives of processes, methods, products and even business.

One feature of these challenges is the recognition that to compete effectively in the turbulent and rapidly changing markets they must continually develop new productsⁱ (Kelly; Storey, 2000). That is an opportunity to innovate in services as well and an expansion of innovation concept in banks. Therefore, innovation is important in financial services industry (Lievens; Moenaert, 2000).

The study of innovation in the financial service industry is a relatively new area of research. A number of recent studies have contributed to understand the factors explaining new financial service success or failure (De Brentani, 1989, 1991; De Brentani; Cooper, 1991). These studies have contributed greatly to understand innovation in the financial services industry, however an

important issue requires attention. There is a lack of studies concerning innovation and new product development(NPD) at the financial industry in Brazil, particularly banking industry.

This paper try to present the role of innovation and new product development process in international banks operating in Brazil, and also intends to contribute with the understanding of NPD process in banks in Brazil, known as worldwide benchmarking in several aspects, due to some particularities in Brazilian banking industry.

2. INNOVATION IN SERVICES

The field of innovation is very broad. Authors have made distinctions between studies of the "diffusion" and "adoption" of innovations as well as between studies of "innovating" and "innovativeness" (Damanpour, 1991, Facó and Csillag, 2010).

One common element in all definitions of innovation is that it is a new idea that is put into practice and creating results(outcomes). In any case, it must be borne in mind that defining a multidimensional concept is not only a question of literary synthesis, far more important is the fact that the definition must include all the theoretical dimensions implicit in the construct.

In the literature, there is certain agreement as regards the idea that fast changes in the environment trigger off innovation processes in an organization (Ettlie et al. 1984; Pierce and Delbecq 1977). Nevertheless, other factors also come to bear on this process; thus Meyer and Goes (1988) see the characteristics of the innovation itself and the organizational variables as being the most important explanatory factors. This second standpoint is backed up by research that questions the reasons explaining why, within the same environment, some organizations are more innovative than others, and later analyses the characteristics of the innovative companies (Camisón-Zornoza et al, 2004).

The complexity of the process of creation and diffusion of innovations clearly illustrates the multidimensional character of innovation. An extensive review of the literature enables us to identify four different dimensions of this concept: the stages of the innovation process, the level of analysis, the types of innovation, and the scope of the innovation.

The evolution of theories about innovation in services usually reflects the manufacturing dominance, and how, from the application of 'traditional' concepts, the theories have evolved into the development of specific concepts/types of service innovation. Coombs and Miles (2000) distinguish three major perspectives: assimilation, demarcation and synthesis. In the *assimilation* perspective the main idea is that service innovation is essentially similar to innovation in manufacturing, and, as a consequence, one can apply all the methods and procedures developed for this latter sector. The *demarcation* position, on the contrary, holds that innovation in services is very different, in that it follows trajectories and shows features that require new instruments and theories. Finally, the *synthesis* view suggests that service innovation reveals aspects neglected in the widely distributed innovation process in the economy, and, consequently, in order to study service innovation, we need a combination of new and old theories and concepts.

Richard Barras (1986; 1990) was one of the pioneers in recognizing the existence of differences between the innovation patterns followed by manufacturing and services. His 'reverse product cycle' highlighted the fact that the introduction of information technologies, after a period of time, gave rise to innovations and product or service development.

3. PRODUCT DEVELOPMENT

There are at least four meta-analytic studies that have reviewed and synthesized the existing work on New Product Development (Montoya-Weiss & Calantone, 1994; Brown & Eisenhardt, 1995; Kessler & Chakarabarti, 1996; Henard & Szymanski, 2001). The findings from these reviews are divergent. Conducted across a variety of settings, the broad correlates of New Product Development (NPD) project success reported in these reviews were not consistent, both in terms of a presence of a relationship and in terms of the strength of their impact. All four reviews call for an integrated examination of broad and new factors that affect NPD success. Similarly, Krishnan and Ulrich (2001) updated past meta-analytic reviews by offering a decision-making focus to group research on NPD and suggest new research directions. Henard and Szymanski (2001) specifically call for studies that depart from the typical main effects models that seek to understand key drivers of NPD performance. They indicate a strong need for examining the effects of contextual variables that might enhance or mitigate the results of main-effects models. Consistent with the comments of Henard and Szymanski (2001), Gerwin and Barrowman (2002) in their meta-analytic review of the literature on integrated product development point out several contextual variables that may explain why certain relationships show up as being statistically significant in certain studies but not in others.

Our effort is on mapping and understand the role of innovation and NPD in international banks operating in Brazil.

If firms do not make new products or services they loose competitiveness. Besides that, Clausing (1994) and Clark and Wheelwright (1993) all alert for the fact of the product development process be the highest priority for the success of a company. The orientation of the companies in search of the effectiveness in the product development is responsibility of the high management, and it should necessarily go by the establishment of market positioning strategies and for the implementation of practices or procedures that maximize the performance of the development process (Griffin, 1997) and also the supply chain (Fine, 1999).

While product development affects many functions in the firm, the main focus of the academic and business literature is on its impact on manufacturing, our focus is on the whole NPD process. Additionally, the role of manufacturing in product development has gained increased recognition in recent years. Clark and Wheelwright (1993) argue that, to be effective in this environment, manufacturing management's structures and styles must change to support modern paradigms of manufacturing; thus “...*senior managers need to make personal changes in their attitudes and behavior*” (for the improvements to be accomplished). In addition, “*in the absence of a strong connection between business strategy and development projects, projects become the place where important issues are resolved*” (Miltenburg, 1996). Without a strategic overview, senior managers risk following the ideas, products, and approaches of rivals. Thus, they might instruct their own personnel to follow the products of rival firms. Such pathways of development can lead to unduly complex product ranges, with consequential high manufacturing costs. Other features of competitiveness, such as quality and timeliness, may also be adversely affected. It is widely recognized that product variety and its resulting complexity can be a major source of increased costs within manufacturing and thus reduce competitiveness.

Many practices have been adopted by companies in this sense and mentioned in the works of the following researchers: Clark and Wheelwright (1991, 1993); Clausing (1994); Brown and Eisenhardt (1995); Griffin (1997); Juran (1997); Baxter (1999), Mazur (2000), and Cheng

(2002), among others. These are procedures that treat of several items, such as the strategy of the product development, simultaneous phases during the project, innovation, management, proximity with customers, multi-subjects and inter-functionality, communication patterns, involvement with suppliers, learning and training, use of tools, quality and importance of the prototypes, control of the stages of the development and finally the use of “facilitative agents”. As demonstrated the results of the research accomplished by Griffin (1997), the improvement of the development process is not only reached with the adoption of only one practice extensively, but with the use of several of them, in parallel.

The immediate actions implanted by companies that look for a prominent position are being addressed for the changes in the management of product and service development, processes and excellence of their relationships with suppliers, through the development of an effective supply chain (Fine, 1999).

Modularity is also important as a strategy to organize products and complex processes efficiently. A modular system is composed of units (or modules) that are designed independently but they still work as a whole integrated, according to Carliss and Clark (1997).

Fine (1999) mentions the Synchronous (or concurrent) Engineering as a model in the product development that can consolidate the three dimensions of the supply chain: product or service, processes and suppliers. That methodology takes into account some stages as below:

1. Analysis of the architectural project of the processes and products, identifying fundamental problems;
2. Dismemberment of the product and processes in their component parts, or subsystems and identify the interactions in each one of them and amongst themselves;
3. Alignment of the demands of product effective project with the one of process project and organizational structure;
4. Explores the alternatives for the basic product project and for the production processes;
5. Estimate initial costs of the adoption of several options of processes;
6. Foresee the demands of periods initially for the execution of different project options;
7. Identify and to lessen any constrains of the synchronous engineering process;
8. Manage the process of project elaboration with multi-functional teams, working in a synchronous way;
9. Align the incentives regarding the project, so that the excluding options associated with the selection of the alternative projects can be done under a global perspective, related with the product life cycle.

According to Clausing (1994), the main characteristics of concurrent engineering are simultaneity and teamwork. QFD and concurrent engineering are related concepts, and QFD allows organizing teamwork during the earlier stages of projects. One important aspect of the QFD approach is capturing the “voice of the consumer” and the deployment of these demands during the whole development process. The main sources of voice of the consumer are focus groups, surveys and customer complaints (Hauser and Clausing, 1988).

The concept of “value” is important in this context, being a combination of price, quality and availability of the product and service, as well as of the product's performance and capability (Porter, 1985). In this respect, a top-level competitor must refresh this value with a succession of new products. Many companies address quality improvement in product and process design

under different concepts: “design for manufacturability”, “concurrent engineering”, “design for assembly” and “simultaneous engineering”.

In the 1980s, industry intensified its efforts toward the management of design. Clark and Fujimoto (1991) discuss the idea of “...a hidden manufacturing (function)...”, when considering the support needed for product development. There are several well-identified phases in the hidden manufacturing activity, such as the production of prototypes, building of tools and dies, pilot runs and manufacturing ramp-up. Taken into consideration with the tendency for short product life and wider product ranges, it is easy to see why pre-production activities have increased in significance.

4. BANKS AND BRAZILIAN FINANCIAL INDUSTRY

To better understand the role of banking activities in the economy we will analyze it in terms of functions. In this case, banks play an important role on providing monetary resources into the economy, as well as transferring these financial resources from and to several actors in the economy as their activity. The traditional banking theory (Freixas; Rochet, 1997) divide banking functions in four main types, as follow:

1. Access to a payment system: related to the fact that it is easier to exchange goods for money than Exchange one good for another;
2. Financial resources transformation: related to creation, concentration and distribution of financial resources in order to attend banking activities;
3. Risk management: related to risk analysis associated with financial operations;
4. Process and information treatment.

Although these four basic functions are typical in Brazilian banking operations, banks also act as financial intermediates which is an activity that is not restricted only to banks (BCB, 2015).

Scholtens and Wensven (2000), analyzed some aspects concerning financial intermediation and detected that it might be a dynamic process of innovation and market differentiation. New banking products can derive from several sources, Rogers (1998) remembers that banking services are based on trust between the bank and customer.

Regarding the Brazilian financial industry we can divide it in two major parts, banking area and non-banking area:

- a) Banking Area – related to investment banks, credit cooperatives and banks and organization that have the permission to create and exchange money in the form of contracts, titles, credit, bonds, etc.ⁱⁱ
- b) Non-banking Area – related to all other financial associations.

This industry represents a unique opportunity of study due to some characteristics, such as: 70,000,000 people representing their customer basis; different segments of customers (reflecting different products and services); present in 100,000 locations in Brazil; control of several financial transactions every day (billions); a rigid regulatory environment and great evolution in terms of technology and financial control due to a decade of hyper-inflation.

5. METHODOLOGY

This research is a qualitative study and uses the method of case study in this investigation. For Tull and Hawkins (1976, p 323) a *"case study refers to an intensive analysis of a singular situation"* and Bonoma (1985, p. 203) says that a *"the case study is a description of a managerial situation"*. According to Yin (1988), the essence of the case study is *"the attempt of illuminating a decision or group of decisions: why were they taken, how they were implemented and what were the results"* (pg. 22-23).. The case study was rendered not only to confirm the concepts, but also to reveal some aspects that, in the first view, would pass unnoticed.

One of the most complex stages of this work was the identification of the cases to be studied. On one side, We needed that the organizations not only had recognized leadership in banking industry, as well as were exponents in the market (national and international). Another fundamental characteristic would be the access to information, not only through publications, but mainly for the voluntary opening of the company to the researchers.

In these conditions, the chosen organizations for this research were three international banks with business in Brazil, representing at least 20% (in assets) of the Brazilian banking industry.

5.1. Data Collection

For each bank key-professionals were identified. These professionals were top managers and also responsible for product development areas of each bank. The researchers had access not only to these top managers but also access to professionals involved with new product development process.

It was defined a preliminary questionnaire based on the literature review, that was tested before case studies. Starting from this questionnaire it was executed, on chosen organizations, a cycle of interviews, involving Product Management Areas and interfaces. Executives were interviewed, as well as personal of technical level.

In this paper, these three banks were named by letters A, B and C.

6. DISCUSSION AND CONCLUSIONS

It is important to notice that Banks A, B and C are among top 10 largest retail banks operating in Brazil, however they focus on different customer segmentation, and also have distinct strategies and approaches for innovation an New Product Development.

Banks B and C are niche banks. Their main customers are people who have up to US\$ 2,000.00 per month of salary. However there is a segment in bank A that competes directly with Banks B and C, and also the number of customers is around a half million.

For this top segment the strategy is similar in both Banks and innovation plays a different role than on low segment in Bank A (that responds to 9,000,000 customer in Brazil):

- Innovation in Bank A is considered a mere consequence of its international politics and mission adjusted with the stakeholder and community as well. However the research could not find mechanisms or functions structure that supports innovation. Innovation is also misunderstood with NPD, in this case being a responsibility of the product manager.
- Innovation's concept in Bank B reflects in an own department (across the world). With politics, functional support and also high level executives compromised with strategies to

proliferate the whole concept of innovation across all departments including Product Development Areas.

- Bank C high executives are now changing the structure of the bank to support politics and activities, strategies and plan concerning innovation. This new face of innovation will configure a tremendous change in the Bank and will affect all areas including Product Development Areas.

Clausing (1994) and Clark and Wheelwright (1993) all alert for the fact of the product development process be the highest priority for the success of a company. The orientation of the analyzed company in search of the effectiveness in the product development is responsibility of the high management – as demonstrated by the innovation perception and orientation from interviewed executives – going by the establishment of market positioning strategies and for the implementation of world practices and procedures in all development centers around the world, maximizing the performance of the development itself (Griffin, 1997).

In Banks A and B the management and creation of new products is separated from the operations and day-to-day activities. This fact allows product manager to deal only with aspects concerning the conceptualizations of a first new idea and new product development. In other hand, in Bank C day-to-day operations is under the responsibility of the product manager so this manager divide his time in creating new products and dealing with problems and changes in old ones. Despite the fact that solving and changing old products characteristics, it is rare to get new ideas (according to products managers) . It is important to notice that in Bank B as innovation process is systematized, an important agent of new ideas are the call center attendants and customers personal account managers.

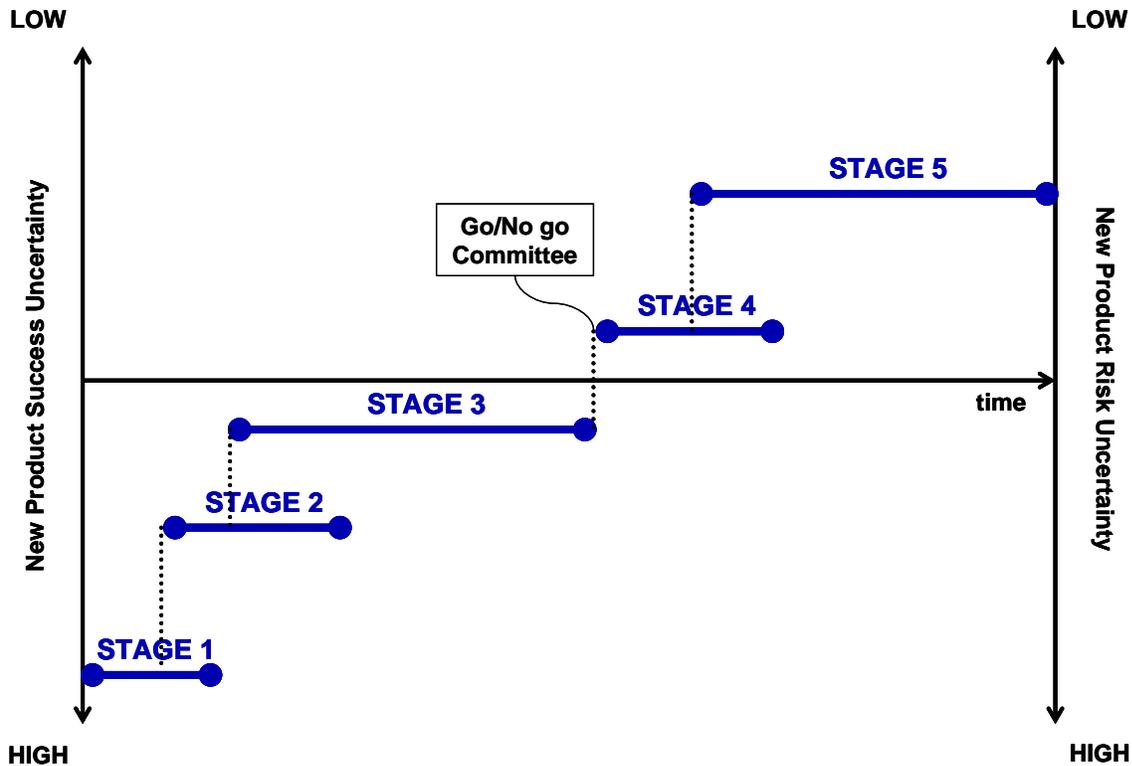
It is interesting to notice that the product development areas in Banks A, B and C studied have distinct characteristics in terms of size, maturity and participation. Now, analyzing these aspects (size, maturity and participation), in a decreasing order: among all, Banks A and B have the biggest and efficient developing area in Brazil; while Bank C have the smallest developing area comparing this three banks in Brazil.

These two distinct situation concerning the size, maturity and participation allow us to critically analyze some aspects concerning the network aspects over these Product Development areas, as follows:

- First copy – according to Shapiro and Varian (1999) a network environment may create the conditions for a great fixed initial cost in tests and development in order do conceive the first copy, while the other copies has almost insignificant variable costs. However, these characteristics can only be perceived in Bank A (even if Banks B and C are also immerse in a network evolving their agency and functional areas across the country and whole world).
- Network effect or benefits are much difficult to be perceived, however from the point of view of the Banks Institution, when many customer have the same banking product, the costs related to the maintenance and operation of the product decrease and some of this benefits (such as discounts) could be given to customers. In fact it is gain of scale more than network effect.
- The geographical disposition to the Central management of the Bank, its agencies and their equivalent on other countries, the linkage between them and IT important role to deal with an increasing number of operations all contribute to the network disposition (Shapiro; Varian, 1999).

Concerning the NPD Process (Clark; Wheelright, 1991). all three banks have similarities: their main stages. From the research, we can derive a common stage model for NPD Process in international banks operating in Brazil, described as follows and illustrated by illustration 1:

Illustration 1: New Product Development Process on Banking Industry

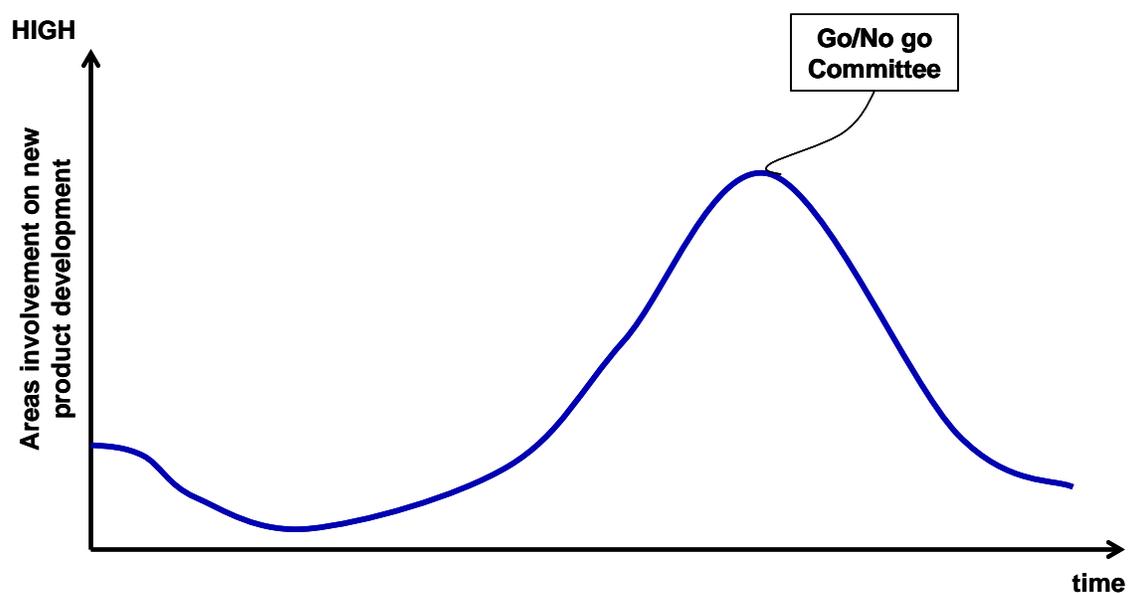


Source: Author from the research

- Stage 1) Get the idea: any area of the bank or customer can give an idea for a new product.
- Stage 2) Concept Design: the most valuable ideas are detailed and from these ideas a concept of a new product is designed. This concept has the first approach results from the main areas in the bank that help the product manager to design an robust concept and its first impact in the bank and in the market.
- Stage 3) Business Plan: from a successful concept design the product manager can formally contact the same areas to contribute with their expertise helping the elaboration of a business plan that might have: market size; better, worst and normal scenario, product life cycle, regulatory aspects, legal aspect, IT impact, promotion, distribution, communication to the market, cost of development and time-to market analysis.
- Stage 4) Go/No go Committee: after the elaboration of the new product business plan, it is submitted to an top executive committee to decide a to go or not go to the market. This committee can also recommend a pilot test in some agencies to evaluate the product.
- Stage 5) Development, Launch and Maintenance: After the GO decision, the product development is finalized, the customers agencies managers are trained and the product is launched. After that only maintenance and support actions are taken to the product.

It is important to notice that product development areas do not work alone as showed on illustration 2. They need help and participation from all other areas in the bank depending upon the stage of development. Each area attends a specific issue concerning the development process of a new banking product (e.g. risk, market size, communications, distribution, etc.). These areas are linked among each other with sophisticated IT solutions, specially in bank A. In this Bank (A) an IT solution was developed in order to support new product development activities. This interconnectivity facilitated by the easiness of communications and IT-based solutions available around the world, besides the several tools that are common to all of these areas and dispersed among them geographically, it is possible that all developments teams are working in different developments simultaneously (Fine, 1999; Clark; Fujimoto, 1991; Clark; Wheelright, 1993).

Illustration 2: Areas Involvement on New Product Development at Banking Industry



Source: Author from the research

ⁱ In this article, the terms “product” and “service” are used interchangeably because the respondents often used the term “new products” while referring to their new services. So the term New Product Development denotes both New Goods and Service Development. Bank managers also use the term “innovation” to refer to a new product or a new service.

ⁱⁱ It is important to notice that only “Casa da Moeda” (a Brazilian governmental institution) has the right to print money and make coins.

Another important point regards modularity, which is also important as a strategy to organize products and complex processes efficiently, once a modular system is composed of units (or modules which are conducted by each supporting area) that are designed independently but they still work as a whole integrated (Carliss; Clark. 1997; Clark; Fujimoto, 1991). In fact, due to the development was divided in several blocks (modules), every time that a block, or part of it, is concluded, this block is stored and updated in a major database, so that any team can access it guaranteeing that someone will always work with the updated version of the developing product at the moment.

It is important to notice that the product development areas address the development and give the development directions for the all other bank areas. However the development, in itself, is addressed by marketing researches, tests of pilot products and feedbacks of products and solutions already sold, and in use by customers – not being the focus of attention of this study, and can be explored on further researches. Risk Measurements and Boundaries relations among product development areas and other areas in banks are important issues for further researches.

7. BIBLIOGRAPHY

- Barras, R., (1986). Towards a Theory of Innovation in Services. *Research Policy* 15, p.161-173.
- Barras, R., (1990) Interactive innovation in financial and business services: The vanguard of the service revolution, *Research Policy* 19, p.215-237.
- Baxter, M. (1999) *Product Design: A Practical Guide to Systematic Methods of New Product Development*. CRC Press.
- BCB. Banco Central do Brasil (2015). Dados do SFN. Available at <http://www.bcb.gov.br/>. Access: sep/2015.*
- Bonoma, Thomas V. (1985) Case Research in Marketing: Opportunities, Problems, and Process. *Journal of Marketing Research*, Vol XXII, May.
- Brown, S. L., Eisenhardt, K. M. (1995) Product Development: past research, present findings and future directions *Academy of Management Review*. Vol.20, n.2. pp.343-378.
- Camisión-Zornoza, C.; Lapiedra-Alcamí, R.; Segarra-Ciprés, M.; Boronat-Navarro, M. (2004) A Meta-analysis of Innovation and Organizational Size. *Organizational Studies*. 25, 331.
- Carliss, B., Clark, K.B. (1997) Managing in an Age of Modularity, *Harvard Business Review*, September-October.
- Cheng, L.C. (2002) QFD in Product Development: Methodological Characteristics and a Guide for Intervention. Working Paper, DEP/UFMG.
- Clark, K.B., Fujimoto, T. (1991) *Product Development Challenge: Strategy, Organisation and Management in the World Auto Industry*, Harvard Business School Press, Boston, MA.
- Clark, K.B., Wheelright S.C. (1991) *The Product Development Challenge*. Harvard Business Review.
- Clark, K.B., Wheelright S.C. (1993) *Managing New Product and Process Development*. New York: The Free Press.
- Clausing, D. (1994) *Total Quality Development*. New York: Asme Press.
- Coombs, R., Miles, I. (2000) *Innovation, measurement and services: the new Problematique*. Dordrecht: Kluwer.

-
- Damanpour, F. (1991). Organizational Innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*. Vol, 34, No, 3.
- De Brentani , U. and Cooper, R. G. (1991). New industrial financial services: what distinguishes the winners? *Journal of Product Innovation Management*, p.75–90.
- De Brentani, U. (1989). Success and failure in new industrial services. *Journal of ProductInnovation Management*, p.239–258.
- De Brentani, U. (1991). Success factors in developing new business services. *European Journal of Marketing*, 2, p.33–59.
- Diniz,E.H., Cernev,A.K, Nascimento, E. (2016). Mobile social money: an exploratory study of the views of managers of community banks. *Revista de Administração*,
- Ettlie, J.E.; Bridges, W.P.; O’Keefe, R.D. (1984) Organization strategy and structural differences for radical versus incremental innovation. *Management Science* 30: pp. 682–695.
- Facó, J.F.B., Csillag, J.M. (2010) Innovativeness of Industry Considering Organizational Slack and Cooperation. *Journal of Operations and Supply Chain Management*.
- Fine, C. (1999) *Clockspeed: Winning Industry Control in the Age of Temporary Advantage*. Perseus Books Group.
- Freixas, X.; Rochet, J.C. (1997) *Microeconomics of Banking*. Cambridge: The MIT Press.
- Gerwin, D.; Barrowman, N. J. (2002). An evaluation of research on integrated product development. *Management Science*, 48(7), pp.938–953.
- Griffin, A. (1997) PDMA Research on New Product Development Practices: Updating Trends and Benchmarking Best Practices. *Journal of Product Innovation Management*. Vol. 14: pp 429-458.
- Hauser, J.R. and Clausing, D. (1988), The house of quality, *The Harvard Business Review*, Vol. 66 No. 3, pp. 63-73.
- Henard, D. H.; Szymanski, D. M. (2001). Why some new products are more successful than others. *Journal of Marketing Research*, 38, pp.362–375.
- Juran, J.M. (1992) *Juran on Quality by Design: The New Steps for Planning Quality into Goods and Services*. Free Press.
- Kelly, D.; Storey, C. (2000), New Service Development: Initiation Strategies, *International Journal of Services Industry Management*, No.1, pp.45-62
- Kessler, E. H.; Chakrabarti, A. K. (1996). Innovation speed: A conceptual model of context, antecedents and outcomes. *Academy of Management Review*, 21, pp.1143–1191.
- Krishnan, V.; Ulrich, K. T. (2001). Product development decisions: A review of the literature. *Management Science*, 47(1), pp.1–21.
- Lievens, A.; Moenaert, R. K. (2000) Project Team Communcation in Financial Service Innovation. *Journal of Management Studies* 37:5 p.733-766, July.
- Lovelock, C. (2001), *Services Marketing: People, Technology, Strategy*, 4th Edition, Upper Saddle River, NJ, Prentice Hall
- Mazur, G. (2000) QFD: Integrating QFD and Other Quality Methods to Improve the New Product Development Process. In: 12th Symposium on QFD/6th International Symposium on QFD2000. Proceedings of 12th Symposium on QFD/6th International Symposium on QFD2000. p.305-317.
- Meyer, A.D.; Goes; J.B. (1988) Organizational assimilation of innovations: A multilevel contextual analysis. *Academy of Management Journal* 31: pp. 897–923.
- Miltenburg, J. (1996) *How to Formulate and Implement a Winning Plan*. Chapman & Hall, Portland, OR.

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- Montoya-Weiss, M.; Calantone, R. (1994). Determinants of new product performance: A review and meta-analysis. *Journal of Product Innovation Management*, 11, pp.397–417.
- Pierce, J.L.;Delbecq, A.L. (1977) Organizational structure, individual attitudes, and innovations. *Academy of Management Review*, 2: pp. 26–37.
- Porter, M.E. (1985) *Competitive Advantage* The Free Press, New York, NY.
- Rogers, K. (1998) Nontraditional Activities and the Efficiency of US Commercial Banks *Journal of Banking & Finance*, 21.
- Shapiro, C.; Varian H.R. (1999) *Information Rules: a strategic guide to the network economy*. Harvard Business Press.
- Scholtens, B.; Wensven, D. (2000) A Critique on the Theory of Financial Intermediation. *Journal of Banking & Finance*, n.24.
- Tull, D. S.; Hawkins, D. I. (1976) *Marketing Research, Meaning, Measurement and Method*. Macmillan Publishing Co., Inc., London.
- Yin, R.K. (1988) *Case Study Research: design and methods*. Sage Publications, Newbury Park.