

PRODUCT MANAGEMENT AND MARKETING INNOVATION STRATEGY

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Abstract

The digital transformation has changed the corporate reality and main product management principles. The purpose of this paper is to investigate the product management theory in the context of marketing innovation strategy. The new agile framework has shifted the work of product manager from a relatively stable and controllable system to a relatively open and agile environment. First, the paper begins with the discussion of the concept of the marketing mix development and elements that constitute the product, it summarizes the theoretical aspects related to product management. Second, the paper discusses the innovation strategy in the context of banking product management based on customer satisfaction. In this paper, the influence of new trends on product innovation is examined. Finally, it is discussed the theoretical and practical implications of research results.

Keywords: agile product management, fintech, innovation strategy, marketing mix, waterfall product management

JEL Code: M31, O31, O32

Introduction

Digital technologies are transforming customer needs and organizations must include appropriate digital transformation as a core pillar of their innovation strategy. The infrastructure of international markets is rapidly changing with the global entry of several innovative forces that have the potential to change product policy and offer global electronic over-the-counter products. Digital transformation is the shift from the traditional business model to customer-oriented business thinking. The digital revolution has led to reviewing the whole production system, causes an increase in production flexibility, speed of innovations, open a new dimension of mass production based on advanced productivity levels, and optimization and digitalization business models. (Oberer and Erkollar, 2018) According to

Julia, Kurt and Ulf (2018) digital transformation affects new e-customer interactions with the organization and opens the necessity of understanding the problem. Changing the global environment, rapid speed of innovations, internationalization and the growth of investment in financial technologies (FinTech) promises to reshape the banking industry by improving the quality and flexibility of financial services, cutting costs and time spend by product development. In the Czech Republic, the market in FinTech services has the potential to be worth between CZK 6 and 15 billion. Considering the market's present size, the figure currently stands at CZK 3 to 8 billion. However, the existing revenues are much lower. According to estimates, 2018 revenues in the sector were between CZK 400 and 800 million. (Deloitte, 2018) Balcerzak and Bernard (2017) confirmed relatively quick progress in creating the digital economy at the regional level in Poland, the Czech Republic, Slovakia, and Hungary. The strongest FinTech player in Central Europe is Poland, which profits from a relatively sizeable market and the presence of global banks'. In terms of the volume of regional investments, the Czech Republic comes second, with more than a quarter (27%) of all investments in CEE FinTech firms was made in the Czech Republic. (Deloitte, 2018)

Banking in the Czech Republic is an international market with a high level of competitiveness where 46 banks and foreign bank branches operating as of March 2019. Mostly dominated by foreign capital, the domestic banking sector is comparable to most similar-sized economies in Western Europe. The total assets of the Czech banking sector stood at CZK 7,824 billion at the end of March 2019. The essential role is played by a group of 4 large banks (Czech Savings Bank plc, Czechoslovak Trade Bank plc, The Czech Republic's Commercial Bank plc, UniCredit Bank Czech Republic and Slovakia plc), 5 medium-sized and 9 small banks. (CNB, 2019)

1 Literature review

The literature review is focused on the determinants of product management development in the last decade. Marketing Mix is one of the main concepts on which is based marketing theory. Kotler (2018) defines it as a set of tactical marketing tools – product, price, place, and promotion – that the firm blends to produce the response it wants on the target market. Borden (1964) based on Culliton's (1948) description of a marketing manager as a "mixer of ingredients" defined the marketing mix original concept, which was a list of 12 elements (Product Planning, Pricing, Branding, Channels of Distribution, Personal Selling, Advertising, Promotions, Packaging, Display, Servicing, Physical Handling, Fact Finding and

Analysis). According to Borden (1964), the list of elements of the marketing mix can be long or short, depending on how far marketing management think when creating marketing programs. In this concept Borden mentioned the Product Planning as policies and procedures relating to Product lines to be offered (qualities, design, etc.); Markets where to be sold (whom, where, when, and in what quantity) and Product Policy designed (research and development program). (Borden, 1964) The number of elements included in this program is depending on how concrete we would like to be and how far the customer needs in the context of a constantly changing market must be involved.

The original list of a large number of marketing mix components was in the late 1950s and in the 1960s shortened under four headings which became known as the four standardized Ps (Product, Price, Place, Promotion). In the 1950s the attention of product management was directed towards consumer goods, in the 1960s, the interest was primarily focused on industrial markets and in the 1980s became important in the service sector. At any time we could mention that the marketing mix represents the program in which the marketing manager could have a thinking guide when considering main marketing problems in connection with satisfying the target market. Bitner and Booms (1981) created the 7Ps framework for services adding three additional components (Process, Physical Evidence, and Participants) to the 4Ps. Bitner (1990) presents a model for understanding service encounter evaluation that synthesizes consumer satisfaction, services marketing, and attribution theories. He tested the effects of physical surroundings and employee response on attributions and satisfaction in service content. Schultz et al. (1993) proposed a consumer-oriented 4Cs framework and shifting focus to satisfying consumer needs. This author considers the 4Ps from a customer perspective and 4Cs are Customer Needs and wants (Product); Costs which has a customer in connection with the purchase of the product (Price); Convenience (Place) and Communication (Promotion).

Constantinides (2002) argues that applying the traditional approach, based on the 4Ps paradigm, is a poor choice in the case of virtual marketing and identifies two main limitations of the framework in online environments: the drastically diminished role of the Ps and the lack of any strategic elements in the model. The four S elements of the Web-Marketing Mix framework present a sound and functional conceptual basis for designing, developing and commercializing Business-to-Consumer online projects. In connection with digital marketing Constantinides (2002) defined the 4Ss framework (Scope, Site, Synergy, System). Chaffey and Chadwick (2019) designed the 5Ds framework (Digital Devices, Digital Platforms,

Digital Media, Digital Data and Digital Technology). Because of the development of smart technologies, the product management of today is facing the fact that smart digital services are needed to be delivered daily via a customer's smartphone. There has been a fundamental shift from standard products to e-products and in the product development process. Staying modern and relevant means becoming an active part of a customer's digital life. Parvatiyar and Sheth (2001) defined Customer Relationship Management as a process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer. In other words, to survive, the product manager must have a suitable framework based on analyzing the current situation in connection with customer experience demand, analyzing the gaps, and improving the level of customer experience in connection with the target customer. Belás and Gabčová (2016) defined a model showing that if a commercial bank can increase the number of satisfied customers by 10,000, it can obtain an additional yearly income of EUR 9.6 million. In connection with building trust and brand loyalty via social media Woodcock, Green and Starkey (2011) defined Social Customer Relationship Management as the business strategy of engaging customers through social media. The next step of product development is to set up project goals that help the team stay focused on what is important from the firm point of view.

2 Research Methodology

The purpose of this paper is to investigate the product management theory in the context of the latest trends in marketing innovation strategy. Based on the literature review focused on marketing mix development and changes in the innovation process, there were defined agile thinking principles as the main trend of product development. Customers of today don't evaluate different products and their parameters, they usually compare experiences. Changing the global environment, rapid speed of innovations, internationalization and the growth of investment in financial technologies, product development, and innovation strategy in the banking system is investigated. The methodology used in this paper was the analysis, synthesis, comparison in time and comparison of the innovation strategy based on selected banks in the Czech Republic.

In the second part of the paper, there were defined 12 different banks based on their size (4 large, 8 medium-sized and small banks), segmentation policy and width of the product portfolio. The following hypotheses are the results of studying and applications of available knowledge and experience. Hypothesis 1: The agile approach is mostly used in the smaller

banks in the Czech Republic; Hypothesis 2: Project Management and Product Development based on agile principles are convenient for the banks with the modular system architecture, simple product structure without wide customer segmentation. The qualitative marketing research was selected as a research method to verify the above hypothesis. The companies that participated in the qualitative research allowed the author to summarize the findings, but not present the results in the way that it might be understandable on the individual bank level.

The conclusion sums up the findings and discusses them. Comparing the traditional product development based on Waterfall Project Management or Agile Project Principles providing a deeper insight into modern product management.

3 Findings and Results

The financial institutions usually operate with a specific year budget for product development and it is distributed to individual projects based on bank strategy according to the bank prioritization. From the product management perspective, the bank organizational structure usually consists of business divisions (Retail Banking, Corporate Banking, Private Banking, and Financial Institutions), supporting divisions (Finance, Controlling, Risk Management, Law Department) and daughter companies. There could be organization-wide divisions like Human Resources, Marketing, and Internal Audit. The Product Owner is usually a part of the marketing department and defines a general project assignment and an initial cost estimate based on business case calculation.

In financial institutions, there are two main ways how to manage product development. Based on qualitative research, the larger banks usually have a choice between the Waterfall Governance Model, which might be more properly called the "traditional" approach and Agile Governance Model, an interactive, team-based type of Rapid Product Development.

Data obtained from the qualitative survey were analyzed to provide the necessary support for the implementation of the business transformation and validate the hypothesis. These findings and results were created based on web pages of selected banks and after interviews and discussions with bank product managers of selected banks. According to research, Hypothesis 1 is true - Agile product development is mostly used in the small banks in the Czech Republic. 75% of small banks are strictly Agile compared with only 12,5% of bigger banks (see in the Tab.4).

Tab. 1: Qualitative Research Results

| PARAMETER | 4 SMALL BANKS | 4 MIDDLE and 4 LARGE BANKS |
|---------------------|--|--|
| PRODUCT DEVELOPMENT | 75% of small banks are strictly Agile 25% of small selected banks have their product portfolio from the parent company (no product development in the Czech Republic) but based on agile principles | 12,5% of banks are strictly agile – 1 large bank / 75% of banks are in the process of Agile transformation - 2 large banks and 4 middle sized banks / 12,5% of banks practice product development with two possibilities based on product manager decision – agile or waterfall (both methods are possible) – one large bank |
| SYSTEM ARCHITECTURE | 100% modular and flexible system (from 5 – 10 years old) | 1 large bank with modular system/ 1 large bank has a monolith system and it is very difficult to be agile |

Source: Own processing based on qualitative research

In light of this context, this paper addresses the research question of how an agile product management process can be used in financial practice. This is achieved utilizing this research carried out on the financial market in the Czech Republic. In this paper, the influence of new trends in product management and product development is examined. The current processes of product development are mapped through a review of existing research on agile methods and from in-depth interviews with the banks' representatives (product manager/ product owner).

75% of small banks are Agile. 2 large banks and 4 middle sized banks are in the process of Agile transformation. 12,5% of banks practice product development with two possibilities based on product manager decision – agile or waterfall (both methods are in this case possible). Only one big bank has strictly agile product development. Based on the analysis, the findings are identified and described the process of Product Development in the bank based on Waterfall and Agile Project Management.

Tab. 2: Product Development in the bank based on Waterfall Project Management

| PROJECT PHASE | DELIVERIES | MAIN QUESTIONS AND ACTIVITIES |
|----------------------------|----------------------------------|--|
| Idea | Business Case Approved Budget | What are the main product parameters (main product benefits)? What is the investment? |
| Business Requirements | Clarify Scope | What are the main requirements for product development? |
| Feasibility Study | Plan Project | Definition of the project plan, project risk criteria, and change management. |
| Realization | Deliver Scope | Project Scope definition. |
| Pilot | Stabilize Delivery | The solution is testing in the concrete system release based on bank release management. |
| Closing | Financial Clearing | Delivery Evaluation. |
| Post Implementation Review | Goal Evaluation | The post-implementation review is presented to the company's management. |

Source: Own processing based on qualitative research

In waterfall projects, the project manager is responsible for the whole project and the failure of a project is a failure of the project manager. Product Developer and Product Owner agree on what will be delivered early in the development lifecycle. This makes planning and designing more straightforward. After the project completion, the post-implementation review is presented to the company's management and the project manager and business owner are responsible for it.

In general, the idea of agile is to break things into smaller increments to guarantee that the value is delivered each time (Reddy, 2016). The initial visual timeline of major product features is named Product Roadmap and it organizes and prioritizes features in the product backlog. The Product Backlog is a prioritized list of items (stories or user stories) that the client expects from the project; this is the main planning tool. For both is responsible for the product owner and make sure that each item is easy to understand for the Development Team, and other stakeholders.

In the interviews of qualitative research, all companies repeatedly pointed out that the agile development builds up the culture of being responsible for changes and that agile product management is about the mindset of the whole development team. Compared to the waterfall, agile is a different approach to product management and every change needs to be managed carefully.

Tab. 3: Product Development in the bank based on Agile Project Management

| PROJECT PHASE | DELIVERIES | MAIN QUESTIONS AND ACTIVITIES |
|--|----------------------------------|--|
| Idea | Business Case Approved Budget | What are the main product parameters (main product benefits)? What is the investment? |
| Sprint Planning | Spring Backlog | Sprint Delivery |
| SPRINT X (from one to two weeks – design, develop, test, demo) | | |
| STEP X = Grooming and Prioritization | Scope in Backlog, Sprint Tasks | What are the main requirements for product development? |
| STEP X+1 = High Level Design | Analyze and Design the Product | Product Design |
| STEP X+2 = Realization | Deliver and Test | Project Scope definition. |
| END OF THE SPRINT X | | |
| Pilot | Stabilize Delivery | The solution is testing in the concrete system release based on bank release management. |
| Closing | Financial Clearing | Delivery Evaluation. |
| Post Implementation Review | Goal Evaluation | The post-implementation review is presented to the company's management. |

Source: Own processing based on qualitative research

Five main principles have been identified as key to the success of agile delivery and in each agile team must be implemented: small parts deliveries, project transparency, requirements prioritization, team collaboration, and business involvement. For the main criteria, how big banks decide about product development see the table below. This is the real case of one big bank in the Czech Republic based on qualitative research. Tab. 4 is based on qualitative research.

Tab. 4: Product Development Style - Decision Making Process

| DECISION PARAMETER | WATERFALL PRODUCT DEVELOPMENT | AGILE PRODUCT DEVELOPMENT |
|--|-------------------------------|---------------------------|
| The business team is willing to accept change. | NO | YES |

| | | |
|---|-----|-----|
| Activities can be well-defined upfront Estimating (planning) is clear. | YES | NO |
| The scope is clearly defined. | YES | NO |
| Is there any possibility to implement the gradual specification of the assignment? | NO | YES |
| Produce Development is iterative (numerous cycles) and each cycle heavily depends on the previous one | NO | YES |
| Success is mostly measured by achieving the project goals for time, cost, scope... | YES | NO |
| Do we prefer set requirements based on customer experience? | NO | YES |
| Is the market changing rapidly? | NO | YES |
| Is there a deep project impact on the bank infrastructure? | YES | NO |
| Is there the possibility of external system developer involvement? | YES | NO |

Source: Own processing based on qualitative research

Hypothesis 2: Project Management and Product Development based on agile principles are convenient for the banks with the modular system architecture, simple product structure without wide customer segmentation.

Tab. 5: Qualitative Research Results

| PARAMETER | 4 SMALL BANKS | 4 MIDDLE and 4 LARGE BANKS |
|---------------------|---|---|
| PRODUCT PORTFOLIO | Simple product portfolio focused on deposit products, only selected loans (credit cards, short-term loans), 2 banks have mortgages, usually no additional services. | Deposits, Loans, Investment, Insurance, around ATMs and branches |
| SYSTEM ARCHITECTURE | 100% modular and flexible system (from 5 – 10 years old) | 1 large bank with modular system/ 1 large bank has a monolith system and it is very difficult to be agile |
| CLIENT SEGMENTATION | Retail products are usually offered to one segment – mass-market orientation | Deep client segmentation based on a wide range of variables (demographic – age, gender, income, family, etc./behavioral – |

| | | |
|---------------------------------------|----------------|---|
| | | product usage, etc.) |
| SPEED OF PRODUCT DEVELOPMENT/CHANGE | 2 weeks | 2 weeks – 1 year |
| CHANGE IN BANK ORGANIZATION STRUCTURE | None or little | Significant transformation |
| CHANGE IN CULTURE | People live it | Project is doing based on the agile principle |

Source: Own processing based on qualitative research

According to research, Hypothesis 2 is true - In the case of the new banks, there is usually used a modular banking architecture and flexible system, which are the prerequisites for applying the agile product management. Therefore, the banks are paying attention to have a system composes of smaller modules. All small banks have a simple product portfolio and their product policy is focused on deposit products. Base on the research, there are only 2 small banks with mortgages products in their portfolio. Retail products are usually offered to one segment – mass-market orientation and changes could be implemented usually in 2 weeks based on sprint product development.

Conclusion

The digital transformation has changed the corporate reality and main product management principles. The purpose of this paper is to investigate the product management theory in the context of marketing innovation strategy. The new agile framework has shifted the work of product manager from a relatively stable and controllable system to a relatively open and agile environment. The research shows that in financial institutions, there are two main ways how to manage product management. Agile product development is mostly used in small banks in the Czech Republic. 75% of small banks are strictly Agile compared with only 12,5% of bigger banks. Based on qualitative research, the larger banks usually have a choice between the Waterfall Governance Model, which might be more properly called the "traditional" approach and Agile Governance Model, an interactive, team-based type of Rapid Product Development. The smaller banks usually have only the Agile Governance Model.

The main difference between traditional and agile approaches can be classified into three groups: requirements and specifications, teamwork and client collaboration. In the case of the new banks, there is usually used a modular banking architecture and flexible system, which are the prerequisites for applying the agile product management. Therefore, the banks are paying attention to have a system composes of smaller modules. All small banks have a

simple product portfolio and their product policy is focused on deposit products. Future FinTech trend can potentially change the direction of the banking product policy, and, even more so, of a bank. This paper makes a relevant contribution to the current state of the product management theory in the context of marketing innovation strategy. The paper discusses the innovation strategy in the context of banking product management based on customer satisfaction. When today's customers evaluate financial institutions, they don't compare different banks anymore, they compare customer experiences. Smart digital platforms have changed product management forever.

Acknowledgment

This academic text is dedicated to the Czech Technical University in Prague, Masaryk Institute of Advanced Studies, Prague.

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