

LEAN INNOVATION AND AGILE INNOVATION: METHODS OF CREATING ADDED VALUE TO CUSTOMERS IN THE BANKING INDUSTRY

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Abstract: *The purpose of this paper is to underline the importance of the added value for customers driven by the services and products created by companies using two relatively new methodologies in the innovation management field, lean and agile. The business environment changes rapidly due to new technologies and the globalisation effects which helps in creating perfect means to bring together companies and clients throughout the world. This is the reason why the focus of the companies needs to be on the created value of the innovative products and services for their clients. Moreover, firms need to make possible for customers to bring their own innovative and improving ideas throughout the entire innovation process. At the same time, organizations must be agile to adapt their offer rapidly to the fast-changing business environment and constantly innovate based on the newly gained knowledge from external and internal sources. The lean and agile innovations can be easily included in any organization's strategy to obtain a competitive advantage on the market. Two successful examples of using these two methodologies in practice are two companies from the banking sector, ING and Royal Bank of Scotland (RBS). These financial institutions engaged their clients in their innovation processes so they can provide better suited products and services. Simultaneously, both companies responded to the new challenges from the market with an agility mindset, planning their innovation processes rapidly through a transformational strategy. Lean and agile innovations proved to be the best approaches for these banks to provide added value for their customers.*

Keywords: *Innovation Management, Agile Innovation, Lean Innovation, Added Value*

JEL classification: *O32, O00*

1. Introduction

Companies are facing nowadays a challenging business environment with technological advancements and new innovative products from competitors which grasp new ideas coming from various places, online platforms, social media, online communities, competitors from the industry, governments, academic and research groups. Clients demand more and more from organizations to provide them with products and services based on their needs and interests, also for them to take into consideration their improvement and innovative ideas during the innovation process. Companies are forced by the fast-changing external environment to act quickly upon identifying the opportunities and shifting their strategies into action (Sonnenberg & Sehested, 2011). By creating added value for customers and establishing competitive advantages on the market through their products and services, companies are becoming profitable and adaptable.

Profitability is a major concern and the principal objective of every company and in order to obtain revenue, the business needs to focus on its total organizational success. Baumgardner & Scaffede (2020) defines total organizational success as meeting the needs and interests of all stakeholders (suppliers, investors, customers, communities) for long periods of time, providing best value for clients, best money returns for investors, best opportunities for employees, best relationships with suppliers and best support for communities (Baumgardner & Scaffede, 2020). The organization provides value to its clients by considering the total satisfaction of them divided by the price paid for the product and service

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which include the costs incurred with suppliers (Value = satisfaction / costs). Moreover, the competitive advantage is obtained when the company provides the best value to clients.

The best value is providing the highest possible client satisfaction through a lowest cost for the customers (Baumgardner & Scaffede, 2020):

Equation (1):

$$\text{Best Value} = \frac{\uparrow \text{Total Customer Satisfaction}}{\downarrow \text{Total Customer Costs}}$$

As such, companies need to concentrate on constantly innovating their products and services with minimizing the costs and using lean techniques. The total organization success can be summarized as a function of lean, innovation and value (Baumgardner & Scaffede, 2020):

Equation (2):

$$\text{Total Organization Success} = \int (\text{Value, Lean \& Innovation})$$

Traditionally, organisations had their focus on their internal employees to bring new ideas in the development of innovative products so they can be provided on the market and create added value for them. In today's world, there is a shift in a new model in which clients' opinions are integrated in the creation of products so they can add their own value throughout the process. Through the relatively new concept of lean innovation, companies want to create added value for their clients through innovative processes and shifting their strategy in creating new products with less financial efforts and process phases. By using Agile innovation, companies need to adapt their offering rapidly and have an open perspective on finding new methods in creating added value for their clients. Another important aspect to be considered for the innovation process is the design thinking for organizations. This paradigm consists of solving complex problems and improving performance (Dukala et al., 2023). The results of a study conducted for 235 companies which had Design thinking implemented (Schmiedgen et al., 2016) showed that approximately 69 % of the respondents believed that the innovation process is more efficient with Design thinking. All the mentioned concepts, lean innovation, agile innovation, and design thinking were used by various companies in the banking sector to provide qualitative products and services with added value to their customers.

2. Lean innovation

Innovation is a subject of interest for many authors and researchers for decades now as being the principal engine to create added value for customers, to improve the existing services and products and eventually develop new products. A company needs to position itself on the market, be profitable and take the lead in its industry by differentiating itself of the competition. Also, by using innovation as part of its strategy, the organization can survive on a highly competitive market. There were several definitions provided by researchers throughout the years, one of them was given by the American Society for Quality (ASQ) (2020) which states that innovation consists of the methods used by a company to transform, and improve its processes, management procedure and techniques. Kalkan et al. (2014) defines innovation as “implementing new ideas that create value.”

Innovation defined by Parent (2022) is “the business activity of creating and delivering customer value in new, creative, and novel ways.” An organization needs to satisfy four criteria in order to innovate successfully (Parent, 2022):

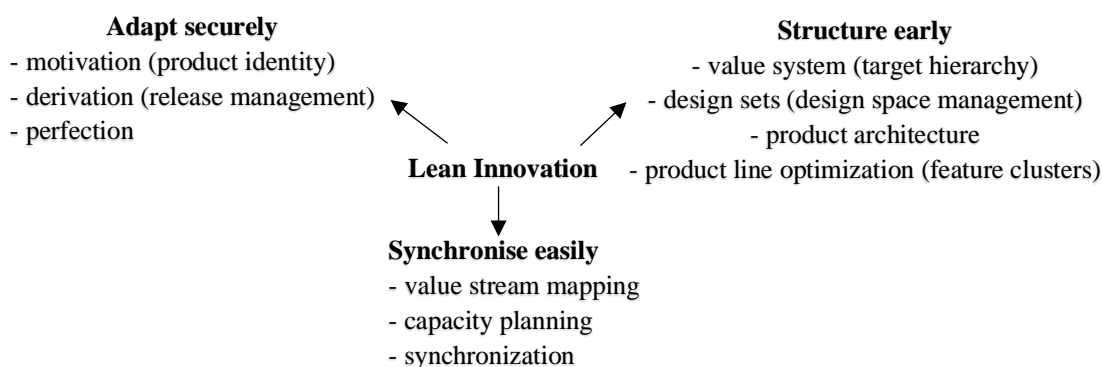
1. Identify the needs of its customers,
2. Fulfil these needs in a novel, creative way,
3. Gain acceptance from the business creating and delivering the innovation,
4. Gain acceptance of this new approach by the targeted customers.

As such, a company can be called innovative, and it can have success on the market only if customers accept its products and services and recognize them as they bring added value and novel for them. At the same time, an organization needs to keep its focus also on lowering its costs and be efficient by eliminating all unnecessary processes in the goal achievement path with the lowest possible financial efforts. This method is called lean which has the following principles (Parent, 2022): define customer value, define the value stream, make it flow, pull from the customer, strive for excellence.

Starting from these two paradigms, innovation and lean, another concept emerged as a necessity in the business environment named lean innovation. Sonnenberg & Sehested (2011) were among the first who explained and wrote about lean innovation as an individual concept, recognizing that lean and innovation are complementary notions. There were several definitions of lean innovation throughout the years, Parent (2022) mentioned that this concept is how the company creates and delivers new added value to clients according to its strategy. Meidute-Kavaliauskiene et al. (2021) states that the objectives of lean innovation for a company is to reduce waste, increase effectiveness, less time in getting products on to the market, reduce costs and provide added value for clients. The innovation competences for an organization are valuable only if they generate value for clients (Radeka, 2013).

Additionally, Schuh et al. (2011) provided ten principles of lean innovation which are structured in three steps: Structure Early, Synchronise Easily, Adapt Securely. In the first phase, structure early, the principle focuses on establishing a motivated innovation team having well-known and clear requirements, creating the product through its architecture. The second phase, synchronise easily refers that the innovation activities should be mapped effectively and efficiently through capacity planning, synchronisation, and value stream. The last step, adapt securely, is about setting up a process of improving continuously the products according to the values and the changing requirements from clients (Schuh et al., 2011). In figure 1, the three steps along with the principles:

Figure 1: Lean innovation



Source: (Schuh et al., 2011)

Later, Nicoletti (2015) has strongly recommended a 7D process for the lean innovation process: define, discover, design, develop, digitize, deploy, and diffusion. Define is all about the needs' identification from all stakeholders, establishing the innovation base. In the discover phase, new, creative, innovative ideas are detected which can become products, services, business model, processes. The third step, design, is about the structure of the activities, such as rules, policies for the innovation teams. Develop phase is related to ideas that can turned into usable innovations. The fifth step is digitize, is using the digitalization to test the innovation. In the phase of deploy, the new product is implemented, and ancillary activities are conducted. The last phase, diffusion, is convincing customers to buy the new product or service and promote the innovation.

3. Agile innovation

As the external environment is continuously changing in terms of technological advancements, fast releasing of new products, increased number of competitors, the newly developed products become outdated in a very short amount of time. Thus, companies are under a constant pressure to have a shorter time for product development and transform it into a time-to-market launch. This need has led to a new concept, called agile innovation through which organizations can launch rapidly new services or products with lower risks (Kerzner, 2023). Kirchmer (2022) has defined agile innovation as a company's ability to develop new products and services in short periods of time, improving and updating them rapidly if needed and the capacity of the organization to innovate based on the requirements. On another hand, Kerzner (2023) defines agile innovation as "an approach that companies take to achieve optimal efficiency and effectiveness in their innovation activities."

The most important objective of the agile innovation is to find rapid solutions to problematic situations considering at the same time the aspects related to time, cost, scope, quality, and innovation. Kerzner (2023) states several characteristics of the agile innovation:

1. The objectives are understood,
2. The objectives are based on the reality and can be obtained considering the team's capability and the limitations,
3. The budget and schedule are realistic,
4. The objectives can be achieved with existing technology.

Agile innovation is all about cooperation and collaboration between companies and their customers in order to create added value for them and find out their needs and improvement, new ideas. The concept implies also to learn directly from clients' experiences so the organization can adapt their offer rapidly. If the collaboration with clients is throughout the development process of the products, it brings several benefits for the organization in terms of continuous feedback in all cycles of product creation.

4. Using lean and agile innovation to create added value for clients

Companies use a combination of agile and lean techniques in innovation processes to create added value for clients by new and improved products with low costs in efficient ways launched on the market in a rapid pace with low risks. The major objective of innovating is to create value for customers, otherwise all companies' efforts would not count. However, the value is different from client to client. Some customers may appreciate more some products' aspects such as low costs, reduced time in delivering them while for others, count more the extra benefits and services included in the offer, even if the price would be higher. A company must first understand and find out what is the added value for their clients, afterwards they can communicate with them clearly, letting the customers decide to invest in their products. All clients want to maximize the value of their purchased products no matter if they are for short term or long term.

The added value for clients can be defined as the customer's motivation for their investment (Neeb, 2023). Value can also be defined as "a function of both benefits or results achieved and the costs or resources consumed in achieving those benefits" (Webster & Cokins, 2020). However, from the last definition is not taking into account the fact that the business environment is constantly changing, thus there are risks which need to be considered. At the same time, organizations may shift their focus to a new perspective, and choose to use agile innovation in the process of creating value. By implementing the agile innovation process, businesses will make all necessary changes and improvements in their products rapidly maintaining a good quality level, reduce costs and get the new outcomes to the market in a short period of time. Co-creation can be considered by organizations in their innovation process so they can achieve success for the agile innovation method. Companies can get closer to their customers to know their values and needs better. A few good reasons to use co-creation by organizations refer to the perceived and actual value in the innovation life cycle, the customers decide what is valuable.

The success of a company is measured by value. Additionally, the focus should be on the client perception of the products' value rather than by company thinking what might be valuable for him. Quality improvements, short time of products' launch or customer support can be valuable for the clients' perspective without considering the price level. In this way the concept of value-driven innovation appeared which has the following benefits: products are created more specifically for the clients' needs, in a faster time, creating a business strategy targeted for customer value, with innovative products focused on the added value perceived by clients (Kerzner, 2023).

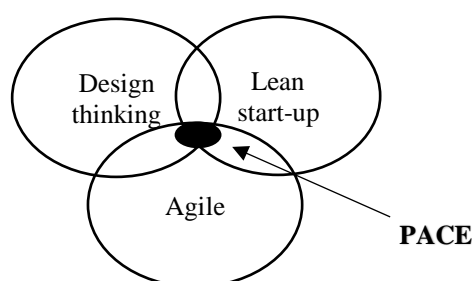
Moreover, by following the three steps process of lean innovation (Structure Early, Synchronise Easily, Adapt Securely), a company can secure at a higher rate that its products meet the most requirements and needs of customers. Through the effectiveness and reducing costs of their products, organizations establish a lower purchasing price and through this, clients can perceive an added value. ING and the Royal Bank of Scotland are successful examples of using these two methods, lean innovation and agile innovation to add value for their customers.

5. ING

ING is a multinational company offering banking and financial services with headquarters in Amsterdam, Netherlands founded in 1991. It has more than 60 000 employees, providing financial solutions to approximately 37 million clients from over 40 countries (ING.com). The banking company wanted to come closer to their customers, to innovate products based on their actual needs not of what the organization believes clients want. In a fast-paced environment, ING wants to be relevant for their customers and innovate constantly. Just as Ignacio Julia Vilar, Chief Innovation Officer at ING Banking was saying "What you really are trying to do is create a different set of customer experiences. And the way customers interact has changed." (Lean Startup Co., 2018). Their strategy focus shifted to the three C's: Customer, Culture and Connection.

The first C, Customer is about creating real value for their clients, having services which solve their actual needs, to encourage them to reach their dreams. Culture is about getting the innovation strategy to ING employees by organizing workshops, bootcamps, messages spread constantly in the organization, including coaches who travelled to all offices around the world to talk about the new strategy. Employees need to focus on what customers really want and need, they should not make assumptions about them. The last C, Connection which means establishing partnership relationships with other companies so the financial services can be delivered. Starting from the innovation strategy, ING developed the PACE methodology which consists of a combination of lean, agile and design thinking principles as shown in the figure 2:

Figure 2: Pace methodology



Source: ING Developer Portal (2019)

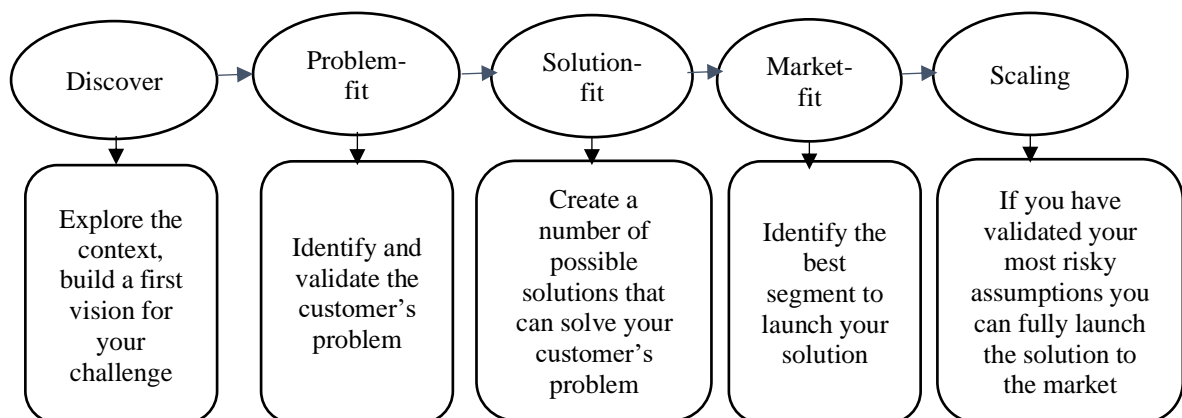
Design thinking is a concept which deals with solving problems and uses different instruments for developing products, environments and processes (Elsbach & Stigliani, 2018). Shapira et al. (2017)

defines design thinking as a process that searches for solutions to problems by exploring the needs and causes and test different solutions for learning and adaptability purposes.

PACE has five phases as shown in Figure 3 (*ING Developer Portal, 2019*) (Pinter, 2020b):

1. Discover – search the limitations, threats, opportunities of the challenge faced, explore customers’ needs,
2. Problem-fit – identifying the client’s most important problem needed to be solved. Some services or products fail because they focus on a less important or non-existent problem. During this phase, test prototypes are built and tested to validate the customer's problems. The company uses fewer financial resources and in less time in developing the prototypes which are discarded after the test,
3. Solution-fit – identify the best product or service which provides value to customers and even invite clients to test the minimum viable product before officially launching it so improvements can be provided,
4. Market fit – launching the product or service to a wider customers’ segment to obtain their feedback,
5. Scaling – once solving the biggest risk issues, the product or service will be launched to the wider market.

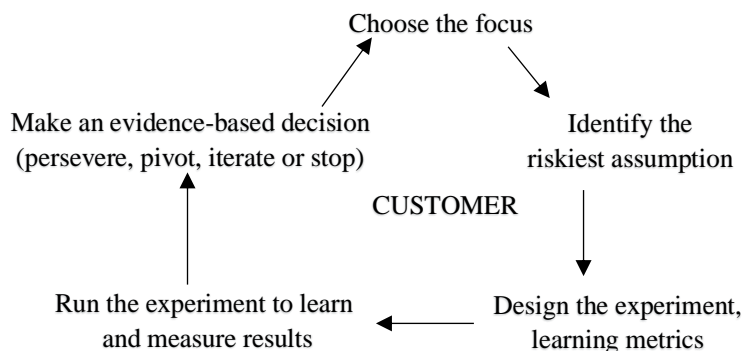
Figure 3: The PACE phases



Source: (Pinter, 2020)

During each phase, there are several experiment loops undertaken (Figure 4) in order to see if the assumptions made for a certain product or service are true:

Figure 4: Experiment loop



Source: (Pinter, 2020)

Another important aspect to be considered in the ING case are the employees way of working which follows PACE methodology. The employees are grouped in teams of 100 people or less having four domains in each team (Pinter, 2020a):

1. Product and marketing – development of the products or services
2. Experience – focus on the clients’ experience
3. Automation – getting work be easy, rapid and simple for all clients
4. Information – getting the right information to the people who need it at a rapid pace.

There are support teams allocated to each group such as IT, finance, risk and business experts, even an Agile coach. Free discussions were encouraged during different time of the day and week so moments of serendipity and sudden innovation may emerge. Some of the results of implementing the PACE methodology include (Werkendam, n.d.):

1. An improved ING app for customers
2. A RoboConsultant for private investments
3. An instant transactions platform for the large-scale corporate segment (global)
4. An international peer-2-peer payment platform
5. Increased conversion for French current accounts

By using the lean and agile innovation concepts as principal directions, ING is securing the added value provided to clients through continuous testing the products before their launch and making all the necessary improvements to them based on customers’ opinions in the process.

6. Royal Bank of Scotland (RBS)

Another successful story of using lean and agile innovation is the one from Royal Bank of Scotland (RBS), a commercial bank founded in 1727 from Scotland having 71 200 employees and around 3.3 million clients. Considering the economical challenges in the past years, RBS is shifting their traditional strategy into agile and lean perspectives. The bank is more focused to integrate innovation, change, lean, agile principles in its business activity. In order to do so, RBS is using a software for their planning of projects and activities for better visualization and for a faster decision-making process. This software allows the company to prioritize projects or tasks depending on their importance, allocate employees in necessary positions to complete projects in due time, allocate the necessary financial resources, review the risks associated with each activity, explore new and improvement ideas from stakeholders and identify the interdependencies between them. All these practices lead to time shortage of launching a product or service, providing added value to customers by having a wide visualization of risks and outcomes, solve any issue may appear rapidly and take fast decisions on investment and costs.

This software led to making the business owner of a certain service line to be the decision owner, becoming accountable for the results in accordance with the funding provided. In this way the time is reduced in taking decisions as well as the costs. The following results were reported (*Royal Bank of Scotland: Transforming PPM with Lean-Agile Practices - Planview*, n.d.):

1. Reduced businesses cases, from 400 per year to 25 per year, by merging the ones with the similar objectives and focusing on less business cases or by removing some projects. Additionally, the decisions were taken faster because of the agile view and the transparent visualization,
2. Stakeholders can view and are notified periodically of the projects progress and performance,
3. RBS is delivering value for their work in a less time than they used to, from 8-months delivery of a project it went down to four weeks (less time and costs for the bank).

As per the usage of this software, the bank was able to launch new services and options to customers in a faster time, all new ideas were explored and considered for the products and services meeting the client needs and creating adding value. As the products are released in a shorter time than before, customers will have the opportunity to provide improvement ideas and they are implemented

rapidly, even considering from a typical 6-weeks release to a 2-days timeline, according to according to Neeraj Goyal, Head of Technology India, RBS India (www.ETCIO.com, n.d.).

7. Conclusions

Lean innovation and agile innovation are two important concepts which should be used by more companies in their activity so they can capture the actual needs of their clients and implement rapidly any improvements and changes to the products. Traditionally, organizations launched new products based on their assumptions on what customers need, however with the fast-changing business environment and the competitors' advancement in their innovation processes, firms are pushed to focus more on including the customers in their development process of their offering. Considering aspects such low costs, reducing time to market for the new products, add value for clients by incorporating them in the innovation process along with the adaptability to the challenges of the external environment, ING and Royal Bank of Scotland (RBS) developed their own methodologies or use a software to stay relevant and be competitive on the market. Not only they use these tools for their clients, but they managed to implement them internally as they are aware that a new strategy focus should start from bringing their employees on board and can rest upon their commitment to it. Innovation is about creating an impact for clients and using it to bring added value to the customers through fast decision-making, adaptability and at the same time reducing costs, waste and with less working effort.

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