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2015 IOP Conf. Ser.: Mater. Sci. Eng. 95 012143

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Innovation management based on proactive engagement of customers: A case study on LEGO Group. Part I: Innovation Management at Lego Group

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Abstract. Customers' proactive engagement in the innovation process represents a business priority for companies which adopt the open innovation business model. In such a context, it is of utmost importance for companies to use the online environment and social media, in order to create an interactive and open dialogue with customers and other important external stakeholders, achieving to gather creative solutions and innovative ideas by involving them in the process of co-creating value. Thus, the current paper is based on a case study approach, which aims to highlight the open innovation business model of the LEGO Group, one of the most successful and active company in engaging customers in submitting ideas and creative solutions for developing new products and new technologies, through online platforms. The study then proceeds to analyze the innovation management at LEGO Group, emphasizing the most important elements regarding the management team, the success and failures, the evolution of the LEGO products focusing on the innovation efforts of the company, its mission, vision, and values, emphasizing the innovation terms which guide the actions and objectives of the LEGO Group. Also, the research based on the case study approach, outlines the most important policies and strategies of the company, the organizational structure consisting of flat structures which facilitate the orientation of the team management on the innovation process and the proactive involvement of consumers and other external stakeholders in product development, highlighting also the most important activities developed by the management team in exploring the new opportunities which may occur on the market, involving customers in sharing their ideas at festivals, participating to discussions of adult fans on web-based platforms and establishing partnerships with the external stakeholders in order to create value. Moreover, the paper is focused on identifying the company's concerns regarding the competitive strategies, new technologies developed for sustainable development and innovation, emphasizing also the concerns of the LEGO Group for a long-term orientation strategy which implies developing innovative products, made by ecological materials, reducing the negative impact on the environment. In addition, the company aims to foster innovation maintaining a clear vision, multiple contacts with the internal and external environment, and the flat structures which enable the communication between innovative management teams and top management team. Consequently, the study provides the insights regarding the innovation management of the LEGO Group, emphasizing the role of engaging customers and other external stakeholders in the co-creation of value.



1. Introduction

In the context of changes that progressively appear in the modern business environment, companies should do the effort to adapt their R & D Department functioning to the new trends which require the involvement of the external stakeholders in the innovation process of the company products. Thus, recent literature in this area has recommended that companies should “think about their business from an open services perspective to discover new ways to generate profitable growth” [1]. Consistent with this trend of the new business models mentioned in the literature, the LEGO Group company managed to adapt to the dynamic evolution of the digital technologies, being a successful company by creating innovation possibilities for their products and by offering to their customers the opportunity to interact with company’s site in order to choose by their own the playing and creation possibilities, making the LEGO products much more attractive.

In such context, it appears as of utmost importance to highlight the idea that engaging customers in the innovation process, by listening to their creative ideas, needs and expectations, creates the premises for a highly successful business, as LEGO Group is today. Thus, innovation management stays at the core of the LEGO Group business, placing the creation of innovative products for customers on a high level as this provides them the long-term success of their business.

2. Innovation Management in a New Era of Business

2.1. Co-creation in Innovation

LEGO Nowadays more and more successful companies choose to involve their customers in the innovation process, giving them the opportunity to express their needs and creative ideas for new product development, by co-creating with company’s specialists innovative products or services adapted to their requests.

In this context, the perspective of co-creating which involves the customer in the creation of the new products emphasizes “the active role of the consumer as a key component of value co-creation in innovation activities” [2]. Based on this perspective, the customer is known as a prosumer, who can produce his own food, goods and services, the consumer becoming a co-producer by performing a part of the production process, as he is more informed, connected and active on the online environment in order to interact with companies for co-creating and co-designing new products and services [3]. Moreover, companies create online platforms, through which they communicate with customers, involving them in contests or challenges for those which are very creative and think they have innovative ideas to share regarding the creation of new products for the company. Thus, it is recommended that companies should co-create with customers, changing their role in the innovation process, by considering them active consumers, which are involved in the co-creation of new products and services [1]. [6].

2.2. The Open Innovation Model

The new model of business innovation requires that companies should be open to receive information for new product and service development from the internal but also from the external environment. Moreover, the open innovation model creates the basis for customers’ proactive engagement in delivering information and creative ideas on the online environment, on special platforms companies create to maintain a continuous dialogue with their customers. Consequently, companies seek to come closer to their customers’ needs, “leveraging platforms to create on-the-fly partnerships with large communities of programmers who use the common infrastructure and toolset to innovate and create value.” [4]

Also, the open innovation paradigm outlines that, projects for new products or services can be launched from either internal or external technology sources and new technology or ideas can enter in the process from internal or external sources [5]. Thus, companies use the online environment to create interactions between innovators from the company and customers or other companies, who can bring new technology and ideas for creating innovative products or service for the market. This open

dialogue is fostered by the new information technology and Internet which provide the premises for creativity and innovation to “take place over large amorphous networks of peers” [6], in order to “produce dynamic new goods and services that rival those of the world’s largest and best-financed enterprises.” [6]

In this context, the current paper, based on a case study approach, aims to investigate the case of innovation management on the successful toy company, LEGO Group, which adopted the open innovation business model and managed to cope with the failure periods encountered throughout its history. The case study is focused on analysing company’s innovation management and its policies, concerns and interventions regarding open innovation.

3. Open Innovation Management: The Case of LEGO Group

3.1. LEGO Group: Management Team and History

LEGO Group is a privately held company, a property of the Kirk Kristiansen family, who founded it in Billund, Denmark, in 1932. The LEGO Group is owned by KIRKBI A/S (75%), the company for investments and strategic activities of Kirk Kristiansen family, and by LEGO Foundation (25%), a corporatist organization which has the same mission as the LEGO Group [7]. The object of activity of the company is to offer toys, experiences and learning materials for children from over 130 countries in the world, developing their creativity through play and learning [8].

Regarding the management team of the company, the most important actors at the global level are the members of the Management Board and the CEO of the company, Jorgen Vig Knudstorp. The Board of Directors of the company is represented by 7 members and the most important actors are Niels Jacobsen, the Chairman of the Board since 2008 and Kjeld Kirk Kristiansen, the Deputy Chairman of the Board since 1996 [9]. As for the Corporate Management, the most important actors from those twenty-one Vice Presidents, mainly involved in the innovation management of the firm, are Per Hjulær, Vice President for Innovation & Consumer Marketing, and Maarten Tibosch, the Vice President for Value Chain Innovation [10].

LEGO, the name of the company, is an abbreviation from the Danish words “leg godt”, which means “play well”, which is the ideal of the company. LEGO Group was founded in 1932 by Ole Kirk Kristiansen, and is proud of an ascending evolution, in the 80 years of activity becoming a modern global company and the third manufacturer of toys in the world, starting from a small carpenter’s workshop. The LEGO brick remains the most important product of the company, although the business evolved, being named twice, “Toy of the Century”, as this LEGO product offers unlimited building possibilities and develops creativity through playing [11].

The evolution of the company brings many important events in the company’s history, as LEGO Group is a family business. The most successful periods in the company’s history refer to the continuous expansion of the company, in 1987 being present with its products on 115 markets in the world. Also, LEGO company success registered in 1992 highlights a Guinness record in railway line construction and the introduction of LEGO products in China. In 1999, LEGO brick is named as one of the “Products of the Century”, although the company is forced to restructure and the changes brought about the loss of 1000 jobs [12].

At the beginning of the third millennium LEGO encountered several changes of its mission and fundamental principles and a deficit of 1 billion DKK, failure which was overcome by obtaining profit due to success in Germany for LEGO My World product. However, year 2004 represented a turning point for LEGO as it registered a huge deficit, which determines the CEO, Kjeld Kirk Kristiansen, to create an action plan to turn around the company, appointing Jorgen Vig Knudstorp as the new CEO of the company. The company managed to overcome the failures, as LEGO makes the first steps towards co-creation in innovation, creating a dialogue with its customers re-launching DUPLO and founding LEGO Factory on www.LEGO.com site, which enables customers to create their own model to play and to buy LEGO bricks for building the model [13]. Strategic decisions regarding outsourcing

of a part of production to external partners in 2006 placed the company in 2011 on the third place in the top of the world's toy manufacturers [14].

3.2. Product innovation efforts

LEGO products evolved, new toys being created according to technological changes and customers' needs. Also, LEGO created LEGO TECHNIC sets, PlayStation games, LEGO mini-figures, films, software like LEGO My World or Island 2, LEGO SCALA, LEGO Games, etc. Moreover, LEGO continued the product innovation efforts involving customers in the creation of the desired model online, and the most important products brought on the market after adopting this strategy of creation of new products taking into account customers' needs was the following: LEGO Designer sets, DINO 2010, LEGO Vikings, MINDSTORMS NXT, Parcheesi Board Game, electric building system Power Functions, Aqua Riders set, LEGO Indiana Jones, LEGO Games and Powerminers [13]. Also, according to the evolution of new technologies and customers' various needs who use more and more the Internet, LEGO launched in 2010 the online games LEGO Universe, LEGO Technic Unimog, Ninjago, etc. [14]. As one may observe, LEGO products were adapted to technological changes, customers' preferences, market tendencies and to new characters from films (e.g. The Lone Ranger, The Hobbit, etc.) and cartoons, taking into account the using of Internet and online platforms, but also the opportunity offered to customers from the world to create their own favorite game and to buy LEGO games more easy on the Internet. The LEGO online games enable children to create their own character, to play whatever they want, customizing the elements by choosing the color of the building bricks, deciding what they want to build and the place where they want to build [15].

Thus, LEGO adjustment to dynamic evolution of digital technologies fostered the company's success in the latest years, creating innovation possibilities for its products, offering to customers the opportunity to interact on company's site and to choose their possibilities of play and creation, this making the LEGO products more attractive and innovative.

3.3. Concept, values, policies and innovation strategies

LEGO's mission is to "inspire and develop the builders of tomorrow" [16], focusing on inspiring children to think creatively and to use their entire potential to build their own future [17]. The essential values of the company are: imagination, creativity, fun, learning, care and quality [16]. Of course, imagination and creativity are based on innovation, which is reflected in company's activities. The philosophy of the company consists of maximizing the positive impact on human beings and society and on offering to children creative high quality experiences of play [16].

Regarding the key policies of the company, LEGO emphasizes that their employees are the most important individuals who transfer the values of the company, and the organization is committed to developing competencies and creativity of their employees.

Another strategic direction of the company is the protection of the children right to develop, believing in the value of the play and learning by playing, for the society and children, sustaining the academic research in the play and learning and innovation field [16].

Also, the company strategy focuses on research and development activities which foster the achievement of a high level of innovation. Thus, the strategy of innovative product development through launching new products every year, such as LEGO® Ninjago and LEGO Friends, but also the strategy of placing production closer to the core markets, brought for LEGO Group revenue growths by 25%, almost triple the sales of 2007 [18].

Focusing mainly on environment protection, LEGO Group aims to explore creative and innovative ways to solve environment issues and to offer products according to the highest environment standards, reducing the energy, the impact produced by product transportation and the waste quantity, by recycling materials used in the production process and sourcing 100% from renewable energy, until 2020 [19].

On the other hand, LEGO strategy regarding the social responsibility is focused on creating a safe and fair workplace according to company's values, achieving with their internal and external

stakeholders [20], and having a positive impact on the communities where they perform activities by developing opportunities for children to play and to grow in their local community [9].

The essential strategy of the company highlights its ambition to globalize and to innovate the LEGO play system, by supporting the commercial impulse, by covering the desired market segment, developing new products and launching new line products [16].

3.4. The organization of the company and key interventions of the team management

Starting from a vertical functional structure, applied to a family business, LEGO adjusted to the necessary changes to creating and developing new, innovative products, which encompasses teamwork and flat structures which could communicate efficiently and faster regarding the innovation product and launching new products line every year. In 2004, when Jorgen Van Knudstorp became the CEO of the company, the new approach of the manager focused on supporting innovation and teamwork, moving from the traditional organization to flatter structures, where teams from different fields collaborate and communicate directly about work activities [21]. Thus, the most important intervention of the team management of LEGO regarding the proactive engagement of consumers in developing innovative products was marked by the new manager, Jorgen Vig Knudstorp, which had a new vision which emphasizes the benefits of collaborating which „come from a dialogue with the community”, focusing on openness, collaboration and innovative products launching [22].

Other important interventions of the team management in relation with proactive engagement of customers in developing new products are represented by BrickFest meetings, facilitated by the online platform LUGNET, between LEGO fans, who can share their construction techniques and their special creations, and LEGO managers who can found out information about the brand and the products features which users consider being the most appropriate, and they can look for new ideas for their products [23].

3.5. Exploring new market opportunities by involving customers in the innovation process

The exploration of new market opportunities was begun by LEGO since 2004 through creating online platforms of sharing ideas regarding future LEGO products. The first platform was LEGO Ambassador which represented the formalization of adult fans relations, which provided „a fast and direct way for LEGO managers to get in contact with adult fans, who may have new product or marketing ideas or be interested in providing feedback on products currently in development [22]. Focusing on creating web platforms for sharing creative ideas, LEGO managed to maintain a continuous dialogue with their customers, the LEGO Digital Designer platform facilitating new market opportunities exploration, through children engagement in uploading their models in a gallery, but also by accessing a virtual building application by means of which they can build creative models with LEGO bricks [24].

3.6. Company's innovation concerns

LEGO Group is focused on investments in research and development and innovation activities, as 60% of its sales come from these activities [9]. Also, one of the main concerns of the company is to create safe products for children, investing in product development, and to innovate in order to find sustainable materials to continue producing the LEGO brick [25]. Moreover, the company encourages the relations with the external environment, cooperating with educational institutions regarding research projects and new technologies [9]. Company's concerns for sustainable development, reflected also in products packaging, sustain innovation by rethinking product packaging in an innovative way, in smaller boxes, reducing the CO₂ emissions by 10%, but also the raw materials for realizing packages and the energy for transportation [26]. The permanent dialogue with their suppliers aims to sustain the product innovation efforts, maximizing the positive impact on environment [27].

The innovation process is also sustained by providing stimulants for customers who bring new ideas materialized in new products launched on the market, innovators receiving 1% from net sales of the product [22], encouraging the launching of new ideas on online platforms.

4. Conclusions

To sum up, LEGO Group adjusted to changes occurred in the business environment, creating flatter organizational structures in order to sustain developing of innovative solutions for new products. Thus, the company adopted the open innovation business model and started a continuous dialogue with their stakeholders and customers on online platforms, in order to engage them in sharing creative ideas and developing innovative projects regarding new product development.

Moreover, the success of the company highlights the foreseen results of engaging customers in the innovation process of the organization, by creating the premises for innovators to send their innovative ideas and to collaborate with team management in order to create future products, according to customers' changing needs

Acknowledgement

This research was undertaken within the framework of the National Research Program PN II, financed by MEN – UEFISCDI, project PN-II-PT-PCCA-2013-4-1811.

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