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Value Co-Creation on Public Social Media at Different Stages of the New Product Development Process. A Case Study of a Polish Clothes Manufacturer

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ABSTRACT

This study contributes to the value co-creation theory in the context of the new product development process. The aim of this study is a comparison of interactions that lead to creation of value on public social media. The considered interactions are at different stages of the new product development process: an idea generation and product development (crowdsourcing) and post-launch (product offerings). The place where interactions take place is Facebook fan page of a Polish clothes manufacturer. The DART model of value co-creation is the framework of the comparison. The results show that interactions at the stage of ideation and product development phase attracted more attention from the social media users than post-launch ones. Interactions at the stage of idea generation phase encouraged social media users to communicate with other social media users. It was rare with post-launch activities in the form of product offering. The study is qualitative, based on a case study of a Polish clothes manufacturer with the use of an in-depth interview and netnography.

JEL classification: M30, M31

Keywords: value co-creation, crowdsourcing, new product development, social media

1. INTRODUCTION

Value co-creation is an important issue in marketing literature. Prahalad, Ramaswamy and Venkat (2004) point out that interaction is crucial to value co-creation. In the past, interaction between the consumer and the company occurred principally at the point of sale and lasted through the consumption.

Currently, with the research focus on Internet usage and social media, interaction points are shifting. First, interaction on social media engages the company and both consumers and other social media users. Second, continuous interaction is possible regardless of the purchase or even intention of purchase. It may concern also products at the development stage.

One of the methods of interaction with social media users during the new product development process is crowdsourcing. According to Howe (2008, p. 1), crowdsourcing is “the act of taking a task traditionally performed by a designated agent (such as an employee or a contractor)

and outsourcing it by making an open call to an undefined but large group of people”. Online communities of people sharing common interests are the strength of crowdsourcing.

The major aim of this study was to investigate differences in value co-creation interaction on public social media at different stages of the new product development process. Value co-creation interactions at two stages of the new product development process were compared – idea generating with the use of crowdsourcing and product launching. The methodological approach is the DART model proposed by Prahalad and Ramaswamy (2004). This work takes the form of a case study of a Polish clothes manufacturer. Interactions with customers at the company’s Facebook fan page were investigated. The study is qualitative with the use of an in-depth interview with a company representative, netnography and data collected on social media.

This paper has been divided into five parts. The first part deals with a literature review about (1) value-co creation, (2) value propositions at different stages of new product development, (3) value co-creation and social media, (4) the DART model, which leads to the identification of a research gap. The second part provides the data and method explanation. In the third part, the results of the study are presented. The fourth part is a discussion where findings are evaluated and interpreted. The fifth part is the conclusion where limitations and future research directions are also shown.

2. LITERATURE REVIEW

2.1. Value Co-Creation

Value co-creation is an emerging subject of academic discourse. As some authors show, there is still a need to merge the knowledge about value co-creation. Even the definition of value is incoherent. Chandler and Lusch (2015) show three main types of value – economic, financial and social and the combination of them. Galvagno and Dalli (2014) suggest two types of value: material or symbolical.

Galvagno and Dalli (2014) integrate the contribution made by other scholars to the theory of value co-creation. In a systematic literature review, they identify three main theoretical perspectives of the value co-creation research: service science, innovation and technology management, marketing and consumer research. They also imply that all of those perspectives are strongly bonded. Each of the perspectives is described below.

The service science perspective is the dominant perspective (Galvagno & Dalli, 2014). In this research area, value co-creation is evaluated with the use of service-dominant logic. According to Vargo and Lusch (2016), who introduced service-dominant logic into theory, this perspective is still growing. Initially, scholars have investigated the service-dominant logic at the dyadic relations level (e.g. consumer-company). However, it has turned into a more general perspective which we can apply to a larger number of actors involved in value co-creation.

Service-dominant logic describes service as the unit of exchange (Vargo & Lusch, 2016, p. 8). Vargo and Lusch (2008, p. 256) define service as “the application of competences (knowledge and skills) for the benefit of another party”. Before the service starts, actors need to be invited to share their skills and knowledge. Those “invitations from actors to one another to engage in service” (Chandler & Lusch, 2015, p. 8) are value propositions. Based on value propositions, actors use their skills and knowledge (operant resources) to create value. Each actor determines the value individually. The same value proposition can cause unique value for every actor involved in process. Actors create the value through the interactions between them (Bai & Yu, 2021).

Interactions are also a central part of the innovation and management technology perspective (Galvagno & Dalli, 2014). However, in this stream of research, the use of technology in creating innovation is highlighted. According to Prahalad and Ramaswamy (2004), technology is a part of

successful interaction. Important places of interaction are interactive websites and social media (Lorenzo-Romero & Constantinides, 2019).

The other part of successful interaction is the positive attitude of managers toward value co-creation (Prahalad & Ramaswamy, 2004). Much of the current literature on value-co-creation pays particular attention to interactions between companies and consumers. It is caused by the micro-level investigation of value co-creation process at the early stage of theory evolution (Vargo & Lusch, 2016, p. 6). More attention has focused on investigation of the consumer's attitude toward value co-creation activities. Thus contributes to the development of marketing and consumer research perspective.

2.2. Value Propositions at Different Stages of the New Product Development Process

Value proposition is an invitation to interact. One actor sends this invitation to others. Consumers and companies are actors taking part in interactions and thus in the value co-creation process. According to Prahalad and Ramaswamy (2004), every interaction between the consumer and the company is of critical importance for value co-creation.

In their article, Prahalad and Ramaswamy (2004) show potential points of interaction. The points mentioned by them are “information search, configuration of products and services, fulfilment, and consumption” (Prahalad & Ramaswamy, 2004, p. 11). Under the previous marketing orientation, customers were considered as passive participants of goods and services exchange. Thus, value propositions in the past research were existing products and services offered by companies.

However, the character of interaction is changing. Additionally, relationships between consumers and companies are changing. The role of consumers now is not only a purchase of products. They share knowledge with companies and become partners in product co-creation (Maklan et al., 2008). In effect, they become an important resource in the new product development process.

Bretschneider and Zogaj (2016) point out that interaction between consumers and companies leads to development of new products. Existing products and services are still regarded as value propositions (Vargo & Lusch, 2008, p. 256). However, there is also another value proposition. Companies may invite consumers to take part in the new product development process.

Hoyer et al. (2010) show four stages of the new product development process: ideation, product development, commercialisation, post-launch. Previously, co-creation of value took place only at the two last stages – commercialisation and post-launch. Nowadays, it is possible to interact with customers also at the beginning of this process – in the ideation and product development phase.

Crowdsourcing is a tool of interaction between companies and consumers. According to one of the definitions, it is “the act of taking a task traditionally performed by a designated agent (such as an employee or a contractor) and outsourcing it by making an open call to an undefined but large group of people” (Howe, 2008, p. 1). This group may help a company in idea generation (Fedorenko & Berthon, 2017), idea screening (Sarmah & Rahman, 2017) or design (example of 99designs). Nowadays, online open calls make this group of people larger than decades ago.

Companies may offer twofold value propositions in the form of open calls. First, companies can spread them through the website of a company that specialises in undertaking crowdsourcing activities for other parties (e.g. 99designs, InnoCentive). Second, a company can announce them in its own channels, like the official website or the company's social media.

2.3. Social Media and Value Co-Creation

Social media is an egalitarian place of interaction between users (Peters et al., 2013). As interaction is crucial for value co-creation (Prahalad 2004), social media is a place where value co-creation is possible. Also Rashid et al. (2019, p. 779) have noticed that “value co-creation and social media have a natural alliance”. Vargo and Lusch (2016, p. 7) highlight the network nature of value co-creation. Peters et al. (2013, p. 282) define social media as “communication systems that allow their social actors to communicate along dyadic ties”.

Bhimani et al. (2019), in their systematic literature review about social media used for innovation activities, mentioned four types of social media: public, company-built, company-licensed and innovation intermediary. According to them, public social media (e.g. Facebook, Instagram, TikTok) are commonly used in interaction between companies and external users, i.e. customers and consumers.

A systematic literature review about social media and value co-creation conducted by Rashid et al. (2019) concerned social media use in co-creation and new product development. However, the major concern of their research was co-creation activities. The aim of co-creation, as they show, is new product development. Their research draws little attention to co-creation of value at the stage of commercialisation and post-launch or deep understanding of interactions between actors involved in value co-creation.

Last, social media is not commonly used to co-create value in Poland. Bojanowska (2018) conducted research on the sample of sixty Polish small and medium-sized enterprises. According to her findings, Polish companies do not regard social media as a crucial point of interaction. Their posts occur irregularly. Companies treat social media as a place where information about a company’s website address is available.

2.4. The DART Model

Prahalad and Ramaswamy (2004) suggest that consumers are not only passive participants of the market. Consumers want to affect the business of their suppliers. To create the environment for the cooperation among actors, there is a necessity to interact with consumers. The basis of this interaction is four elements: dialogue, access, transparency and risk. Each of the elements is described below.

Dialogue must be conducted between equal partners with the use of technology (Prahalad & Ramaswamy, 2004). According to Russo Spena et al. (2012, p. 24), it is “interactivity, deep engagement and a reciprocal propensity to act”. According to Mai et al. (2020), it is “the process of communication and sharing knowledge between customers and providers”.

Access is a possibility of an individual to gain all needed information from the company or other consumers (Prahalad & Ramaswamy, 2004). According to Mai et al. (2020), this information should be possible to get before the product purchase.

Russo Spena et al. (2012, p. 24) states that “transparency involves the symmetry of information during interactions, which enables the rise of strategic information and trust capital for both partners”. Mai et al. (2020) show the importance of public information about companies’ prices, costs, and profits.

The risk/benefits assessment of a product is possible because of dialogue, access and transparency. Because of those elements, an individual can judge potential risk or benefits of products or services (Prahalad & Ramaswamy, 2004). To enable the analysis of interactions at the stage of generating new ideas, the risk/benefit definition has been extended. In this article, the risk/benefit applies to value propositions, not only to products and services.

Until now, the DART model has been used to investigate the determinants of co-creation in citizen energy projects (Ryszawska et al., 2021) and user satisfaction in the e-hailing service

(Jenal, Mohamed, Hanawi, Athirah, & Idros, 2021, p. 2445). Then, the model was used to investigate tourists' experience in the hotel industry (Solakis et al., 2021), patients' value co-creation behaviour (Mai et al., 2020), interactions in temporary shops in Italy (Russo Spina et al., 2012), to explain the repurchase intention (Reche et al., 2019) or the mediator's role in supporting co-creation for vulnerable consumers (Johns & Davey, 2019, p. 5). Donatto et al. (2017) use the DART model to describe values co-created between companies at the social business-to-business network.

There are two studies with the use of the DART model which consider phenomena related to social media and new product development. One attempt to investigate social media with the DART framework (Schiavone et al., 2014) aims to highlight the importance of technology in interaction. In this research, the DART model applies to social media in general. The main conclusion is that technology management should be regarded as the fifth element of the DART model when concerning co-creation on social media.

The aim of the second study (Permatasari et al., 2021) is to create a value co-creation model which leads to success in the commercialisation phase of domestic product development in Indonesia. They conducted qualitative research with the use of in-depth interviews, observations, archival materials. They collected the data based on IKKON (Innovation and Creativity through Archipelago Collaboration) program, which aims "to develop a good quality and marketable innovative economic products (...)" (Permatasari et al., 2021, p. 416). In their research, the DART model applies to all the phases of new product development. Researchers compare the new product development processes before and after the IKKON program implementation. However, there is no information about the type of the developed products and tools used in the new product development process.

2.5. Research Gap and Research Question

Crowdsourcing in the new product development process is an important subject of research. Still, only few studies investigated crowdsourcing with the use of value co-creation theory. Bai and Yu (2021) researched crowdsourcing with the use of a value co-creation model. However, they focus on a crowdsourcing platform, disregarding crowdsourcing on public social media.

Interactions that lead to co-creation of value start with a value proposition. In social media, there is a possibility of setting various value propositions. The aim of this research is to investigate interactions between the company and consumers on public social media. Interactions at two stages of the new product development process are compared with the DART framework. The first type of interaction begins with a value proposition as a crowdsourcing open call during the ideation or product development stage. The second type of interaction begins with a value proposition in the form of product offering at the post-launch stage.

To my best knowledge, crowdsourcing activities on public social media have never been investigated with the use of the DART model of value co-creation introduced by Prahalad and Ramaswamy (2004). No previous studies try to investigate the value propositions on social media at different stages of new product development.

In conclusion, the research question is: what are the differences between interactions based on value propositions at the product ideation and development stage and the post-launch stage of the new product development process.

3. DATA AND METHODS

3.1. Research Method and Sampling

The research question is: what are the differences between interactions based on value propositions at the product ideation and development stage and the post-launch stage of the new product development process. This question is novel because it is an attempt to find differences between value co-creation interactions at different stages of the new product development process. It is also novel because the stage of product ideation and development is regarded as the value proposition.

The research method of the study is a single case study of a Polish clothes manufacturer. Finding a big sample of Polish companies that interact with customers and use crowdsourcing on social media at the level of ideation and product development stage of the new product development process is difficult or almost impossible. Thus, the study uses qualitative analysis in order to gain insights into new phenomena of Polish companies' activity on public social media. Analyses are conducted at two levels: consumers and company. That is because of the two-side character of value co-creation interactions.

Data were collected with the use of three methods. First, an in-depth interview with a company representative was conducted in June 2021. The representative is in charge of online communication with consumers. It is a person who has the widest knowledge about the communication held by the company on social media. This part of the study helps to understand the phenomena from the company's perspective. Then, netnography on the Facebook group of the company was conducted from 1 July to 16 August. This step helped to observe both company and consumer. As Kozinets (2002) claims, netnography is "an online marketing research technique for providing consumer insight". If needed, data got during the in-depth interview or netnography were compared or checked with the company's website.

Data got with the use of the above methods are both qualitative and quantitative. Those data were analysed through the lens of the DART model to find out the differences between interactions based on value propositions at the product ideation and development stage and the post-launch stage of the new product development process.

3.2. Characteristics of the Company

The MyBasic company is a Polish manufacturer of clothes for babies, kids and adults. The company sells products only in an online shop. A major form of communication with customers and consumers is online channels – website, electronic newsletter, and social media. The social media used by company are: blog, Facebook, Instagram.

The focus of the research is the activity at the company's Facebook fan page, because this is the major form of interactions concerning non-existing products. Those interactions start with the value proposition in the form of a crowdsourcing open call.

Other types of interactions at the Facebook fan page are linked to the commercialisation and post-launch phase of the new product development process. At these stages, product offerings and information about promotions are the dominant type of posts. A product offering is the second form of value proposition which is investigated in this research.

Over 30000 people follow the Facebook fan page of the company (August 2021). The company is an active participant of the fan page. The sample comprises 40 posts shared in 46 days between 1 July 2021 and 16 August 2021. According to this sample, the forms of interaction with users are posts about product offers (34 posts), crowdsourcing (2 posts), and promotions in the online shop (2 posts). In one post, the company shared photographs of its products sent by one of consumer. In the other, it announced a new functionality of the official website.

3.3. Data Gathering and Analysis

The data were gathered with the use of three methods. First, an in-depth interview with a company representative was conducted. The representative is to manage the online communication with consumers and has the widest knowledge about social media interactions with customers. The data are qualitative – a transcription of the interview.

Thanks to netnography, both qualitative and quantitative data were collected. The first type is the record of comments made by consumers and the company in response to the company's value propositions. The second is quantitative data containing: number of posts made by company, number of posts which concern value proposition at the product ideation and development stage of the new product development process, number of posts which concern value proposition at the post-launch stage of the new product development process, numbers of reactions or comments related to each of the posts.

Each of the posts is also attributed with the information if consumers interact with the company or whether consumers interact with other consumers. Interaction between the company and consumers is defined as both consumer reaction to the post (likes, comments) and the company's reaction to the consumers' comments. Interaction between consumers is defined as responding to other consumers' posts, especially when one consumer mentions the other in his or her comment.

As a result, all the data were analysed with the use of the DART model. Information was assigned to one of the elements of the model: dialogue, access, risk or transparency.

4. RESULTS

4.1. The DART Model for Interaction at the Ideation and Product Development Stage and at the Post-Launch Stage of the New Product Development Process

The result of the analysis is the DART model for both crowdsourcing posts at the ideation and development stage of new product development and product offer at the post-launch stage of new product development. The result is shown in Table 1, and then the differences between both interactions are shown.

Table 1

The DART model for interaction at the ideation and product development stage and the post-launch stage of the new product development process

	Value proposition at the ideation and product development stage of the new product development process – crowdsourcing	Value proposition at the post-launch stage of the new product development process – product offering
Dialogue	<p>In this type of posts, the company asks consumers for product propositions, advice. The company communicates on Facebook with customers as equal partners. As the representative of the company mentioned: “we try to communicate in the way that consumers feel they affect our brand”. It is visible in crowdsourcing posts. One of consumer comments is: “I really appreciate that you set the store’s assortment according to needs. Two sides are satisfied!”.</p> <p>Facebook possibilities define rules of the dialogue. Consumers may only comment on posts shared by the company or react in response to them (e.g. like, super, sad). In the sample, there are two posts that concern crowdsourcing. The company shares also information about an expected form of communication (comments or reactions). Those posts are the most popular among consumers. The first of them gained 1500 reactions and 249 comments. Here, the company asked consumer to give feedback as one of reactions: “I love it”, “I like it”, “ laugh”.</p> <p>In the second crowdsourcing post, the company asked for help in developing a collection for toddlers. The company asked consumers to choose out of 6 propositions of products for toddlers and to give their feedback in comments. The post gained 30 reactions (“I like it”, “I love it”) and 685 comments. 68% of comments are just the act of choosing products that the company should develop. 4% of comments are the part of the company participation. The company mostly encourage consumers to give more feedback about their needs (10 items). 10% of total comments are the part of communication comments that are a continuation of one consumer comment. And last, 18% of comments (124 items) were both the act of choosing and advice about product features. This type of comments is a possibility for the company to gain consumer insight, which sometimes is not easily accessible, like: “maybe bodysuits, rompers and jumpers with full length zipper through the centre (...) for children requiring, e.g. cardiological diagnostics (cables from monitoring or holter) or after operations – a blessing” or “on the other hand, all parents who use reusable diapers will buy (product number-edit.) 3”.</p>	<p>In this type of posts, the company spreads information about new products or new characteristic of products. For example: “SHORT LEGGINGS are recommended for summer! Narrow and fitted cut allows freedom of movement. And this flexible and airy material. And with 28 COLOURS, everyone will surely find the right one for themselves”.</p> <p>Posts that encourage consumers to interact in the form of products offers are the major part of Facebook communication. Every post gained at least one reaction from consumers. Reactions are always positive – “I like it”, “I love it”. Three of posts with the highest amount of reaction are about, successively, a dress for children and two about clothes for an adult and a child.</p> <p>There are 12 posts that are not commented on by consumers, which is about 35% of this type of posts. In 14 cases, shared posts caused the formulation of the market need by consumers. Consumers mention the needs of product availability in different sizes, colours, for example: “and all size M. There are men under 175 cm and your clothes are too big”.</p> <p>Consumers ask for advice concerning size or laundry care instructions. Sometimes consumers share their opinion about products: „your clothes are the best”, „the sweatshirts are fantastic and nothing happens to them in the dryer”.</p> <p>Facebook possibilities define rules of the dialogue. Consumers may only comment on post shared by the company or react in response to them (e.g. like, super, sad). The average number of comments for all posts is 5. The average number of reactions for all posts is 21.</p>

continued Table 1

	Value proposition at the ideation and product development stage of the new product development process – crowdsourcing	Value proposition at the post-launch stage of the new product development process – product offering
Access	Posts with crowdsourcing activities create conditions for consumer-to-consumer interaction. However, this communication does not concern existing product features, but previous experience in product use and personal preferences. In those types of posts, the company spreads information about future products and consumers have even the possibility of deciding what the product should be like. The company has access to tacit knowledge from customers.	Posts with product offerings rarely create conditions for consumer-to-consumer interaction (4 cases). Consumers help each other in choosing the right size or model of clothes. Communication between the company and consumers is twofold. First, the company introduces a new product offer. Second, the company pays attention to consumers who interact on social media in the form of responding to their comments. This type of posts gives consumers a possibility to ask other consumers or the company about product features.
Risk	The company's risks are twofold. First, this type of interaction may cause disappointment to some consumers; like the representative of the company mentioned, they want consumers to have "the feeling that I have the influence on what happened remains" with no "no such feeling of being deceived or disappointed or just attracting attention and nothing else". That occurs when a person engaged in the interaction feels that the company does not respect her/his input. Second, there is a risk that product ideated with consumers may not meet customers' expectation.	There is a risk that consumers may not interact in response to a product offer. The offered product may not meet consumers' expectation.
Transparency	Transparency is an important part of interaction. According to its official website, the company offers high-quality clothes made in Poland. The company makes clothes with the use of certificated oeko-tex fabrics. The company also tries to use less foil. Consumers may choose eco boxes for their orders. As a result, consumers are aware of ecological standards of production. Still, consumers are not provided with the information about profit, costs and prices, like for example consumers of Polish clothes company Elementy.	According to its official website, the company offers high-quality clothes made in Poland with the use of certificated oeko-tex fabrics. The company also tries to use less foil. Consumers may choose eco boxes for their orders. It is easy to get to know production standards in terms of ecology. Consumers can consciously decide whether to interact with the company according to the ecological issues. However, they still have no access to the information about profit, costs and prices.

Source: own research.

4.3. Differences

Major differences between interactions are visible in dialogue and access in the DART model. Interactions starting with a crowdsourcing open call attract more attention of the social media users. In addition, the company needs to establish additional rules of communication. It is unnecessary when the company presents a product offer.

Then, crowdsourcing posts are more engaging for consumers. Many of them take part in product development. In one crowdsourcing post, the company gained consumer insight from a large group of consumer. Answering 35 posts about a product at the stage of product launch, the company gained only 14 comments in which consumers mention their needs and preferences about products. Thanks to one of the crowdsourcing posts, the company gained 124 comments which are about product preferences and consumer needs. Some of them may be helpful in finding a niche for the company.

An effect of crowdsourcing open calls is both customer-company and customer-to-customer communication. In the case of product offerings, customer-company is a major form of communication. Crowdsourcing open calls cause higher risk than product offerings. Some consumers may feel disappointment when the company does not use their input.

Transparency is similar in the case of both interactions. However, at the stage of product ideation and development, it helps customers to decide whether to engage in the creation of a product. At the post-launch stage, it helps to decide about the purchase.

5. DISCUSSION

This study is novel because of the use of the DART model to analyse interactions between the company and the consumer, also at the stage of ideation and new product development on social media. It is also a first attempt to compare the interaction between the consumer and the company at different levels of the new product development process.

According to my knowledge, in the literature there is one study which applies the DART model to the new products development process (Permatasari et al., 2021). Researchers compare the new product development model before the special program IKKON and after it. The aim of the IKKON program was to strengthen the creative economic sector in new product development. We do not know of tools which are used during the product development process and the type of product. However, at the ideation and product development stage, one difference is that in the product development model proposed by the IKKON program, consumers' needs are an important part of value co-creation. Before the IKKON program, consumers were not an active part of new product development. Similarly to the model proposed by the IKKON program, according to the results, consumer needs are also an important part of crowdsourcing activities on social media, as it helps to get to know consumer needs and preferences in the new product development process.

According to Schiavone et al. (2014), when as far as co-creation on social media is concerned, we should conduct analyses with the extended DART model. The fifth concerned element should be technology management. They define technology management as management of different social media networks, posting in order to encourage users to co-create. However, in their research, they analyse a case of the company that co-creates with users with the use of few social media channels: YouTube, Facebook and Twitter. In the case of my research, the company uses only Facebook fan page to co-create with consumers at different stages of new product development and the use of the fifth element was impossible. However, even with the use of one social media channel, in the case of co-creation as crowdsourcing, the company needs to manage consumers and set rules for commitment. This is in line with Prahalad and Ramaswamy's (2004) definition of dialogue.

This study shows that the type of value proposition on social media may result in different interaction. The results show that value propositions based on a crowdsourcing open call are more interesting for social media users than product offerings. Social media users want to take part in development of new products. It is in accordance with Maklan et al. (2008), who claimed that consumers become partners in new product development. Then, interaction based on a crowdsourcing open call is not dyadic. This result is an additional support for social media definition proposed by Peters et al. (2013, p. 282).

Last, this study suggests the enrichment of the definition of access in the DART model when using it to analyse value co-creation before product launch. Mai et al. (2020) regarded access only as consumers' possibility of getting to know the product before purchase. However, according to the results of this study, this part of the DART model may be regarded also from the perspective of companies. Thanks to crowdsourcing, at the ideation and product development stage of the new product development process, access is the possibility for the company to get from customers the knowledge about demanded product characteristics before the launch of the product.

Those results are significant also for practitioners. They are provided with the knowledge about the possibility to both attract social media users' attention and get knowledge about consumer needs from social media users.

6. CONCLUSION

In this study, value is co-created as social media users and the company interact. Social media users and the company are actors who take part in value co-creation. The third actor is Facebook as a provider of technology. The aim of this research was to investigate interactions between the company and social media users at different stages of the new product development process. As a result, differences are presented – value propositions at the idea generation attract more attention of social media users and induce social media users to communicate with each other.

This study has limitations. First, interactions on only one public social media were investigated. Second, the DART model was investigated only from the perspective of one company. There was no direct insight from social media users. Moreover, it is beyond this study to examine a part of interaction that occurs outside social media (e.g. purchase of the product, consumption).

In further research, different interactions in other public social media may be investigated. It is also interesting to study if diverse interactions lead to creating specific value. A further study with more focus on differences between interactions in different crowdsourcing activities (e.g. voting, contest) is also suggested.

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