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從社會交換理論觀點探討企業共同創造

-以樂高集團為例

Analysis of Firm Co-Creation by Social Exchange Theory

- a Case Study of The LEGO Group



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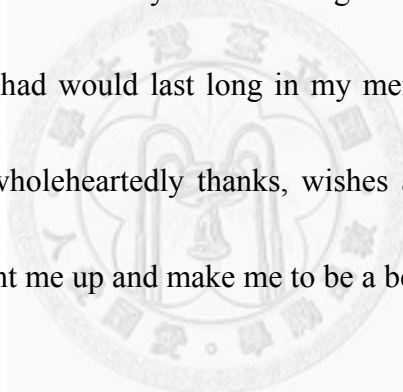
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## **DEDICATION**

I would like to send my sincerely thank you to my thesis advisor, Professor Chen, guides me to the right direction during my thesis writing, stimulates my thinking and teaches me how to make a more comprehensive analysis on the case study. You are the candle of the night. Thank you!

Two years school life in National Taiwan University is such a precious moment. It is definitely my pleasure to meet all of you and having every one of you to be with me. Such precious moment we had would last long in my memory and hopefully yours. I would like to deliver my wholeheartedly thanks, wishes and blesses to have a better future for everyone who light me up and make me to be a better person. Thank you!



## 中文摘要

全球玩具產業在 2000 年年初經歷了關鍵性的轉變，零售業持續合併、消費者對傳統玩具的需求下降和產業內價格競爭，促使全球玩具廠商面臨史無前例的財務風暴。當時的玩具廠商之一，擁有超過七十年歷史的樂高集團，也不能幸免地面對非常嚴重的財務虧損。但是，樂高集團不僅存活至今，業績也一年比一年好，現在樂高集團再次成為盈利豐收的玩具廠商之一，也是現今全球第三大玩具廠商。其實，樂高集團的成功可以追溯到 2004 年，它們針對集團有史以來最嚴重財務虧損的行動計劃，其中一項主要策略轉變是「聚焦於顧客，特別是他們的利潤，以恢復集團競爭力」。樂高集團開始把企業策略轉向顧客，持續投放資源與支援與顧客合作的活動，可見樂高集團在早期已經開始與顧客「共同創造」。

在學術方面，「共同創造」一詞早在九十年代學術界出現，共同創造被定義為顧客與廠商在價值鍊中共同合作，顧客在價值中的角色從使用者和消費者變為共同創造者。近年學者把共同創造定義為廠商與企業內部或外部伙伴在價值鍊中共同合作，從而研究他們的互動與關係，也主要探討了共同創造定義、共同創造範疇與共同創造模型等等。

本研究主要對共同創造定義、共同創造範疇與共同創造模型進行文獻回顧，以建立本研究架構，以樂高集團個案為例，從社會交換理論觀點探討廠商在真實商業環境中與顧客共同創造的行為，雙方所發展的關係和這關係如何對廠商的績效作出貢獻。

**關鍵字：**共同生產、共同創造、顧客參與、玩具產業、樂高集團、社會交換理論

## ABSTRACT

With crucial changes in toy industry in beginning of 2000, consolidation in retail sector, declining consumer's demand and intense competition caused a financial crisis towards global toy manufacturers without exception. One of the global toy manufacturers, The LEGO Group, suffered from severe net loss unprecedentedly, not only survives until now but outperforms year by year. Nowadays, The LEGO Group is the third largest toy manufacturer globally. Such success can be chased back to their action plan carried out from 2004 mentioned "Restore competitiveness by focusing on customers, in particular their profitability". They start to focus on customers and their profitability, put resources and growing support on activities to collaborate with customers. The LEGO Group demonstrates an early adoption of co-creation.

On academic aspects, the emerging concept of co-creation starts from 90s. Customer involvement in value chain to collaborate with firm is defined as Co-Creation. The changing role of customers not only as the users and consumers but become the co-creator in the value chain. Scholars start to define co-creation between firms and its internal & external parties, reviewing the interactions and relationships, the definition of co-creation, co-creation category, co-creation models and other constructs.

This research consists of literature review on the concept of co-creation, its definition, category and models, and to establish the research framework. Further, by the case study of LEGO Group, social exchange theory will be used to analyze firm co-creation behavior and to examine what relationships are evolved between two co-creation parties.

**Keywords:** Co-production, Co-creation, Consumer involvement, Toy industry, The LEGO Group, Social Exchange Theory

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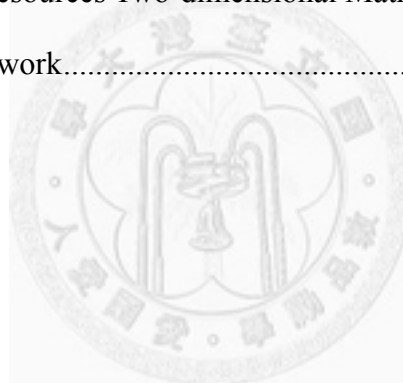
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## CHAPTER 1 INTRODUCTION

There have been crucial changes in toy industry from the beginning of 2000; it led to financial crisis crashed on some toy manufacturers. Global toy industry encountered global major market decline, major market conditions and business terms changes in toy industry in two aspects, customer & competitors, further weakened the market and financial performance of toy companies.

Consolidation in the retail sector started from the beginning of 2000, at that moment, many major grocery chains such as the supermarket chain had expanded their portion of toy sales with more and more shelf space. They also sold private label products which often manufactured in China and offer competitive discount terms to consumers. It led to many medium-sized toy retail chains are finding it more difficult to compete with those large chains. And moreover, it led to increasing pressure of retailer's on price demands and made towards to toy manufacturers requesting for shorter delivery times, lower stocks at the retailer, more exclusivity products, higher profit margins and increased marketing activity. The consequence further reduced the profit margins of toy manufacturers.

Secondly, declining demand and increasing economic pressure from consumer came from the threats that children are losing interest in traditional toy at a younger age.

In the effect of technology advancement, consumer demand further threatened by increasing demand in the electronic products such as video, computer games, mobile phones. Electronic goods are replacing traditional toy in an increasing extent. Hence, the requirements of product range of traditional toy makers are affected. Moreover, quickly changing fashion trend shortened the market life cycle of traditional toy. To response to all these changes in the consumer market, toy manufacturers are required to reduce their product development time and increase flexibility in order to maintain their competitive position in the market.

Third, intense price competition among the toy industry introduced by low cost competitors who relocated their manufacturing to low cost countries such as China. Their lower production cost initiated intense price competition in the industry putting pressure on profits to the toy manufacturers in the market.

## **1.1 Research Motivation**

With such crucial changes, nearly go bankruptcy toy manufacturer, The LEGO Group, is unexceptionally and unprecedentedly suffered from its most serious financial crisis ever during 2004 in its history of 80 years. Their total revenue dropped by 7% in DKK 7,934 million against DKK 8,428 million in 2003 and net loss DKK 1,931 million

against loss of DKK\$935 million in 2003 and their global market ranking also dropped to the sixth among competitors.

With such crucial changes in the toy industry, nearly bankrupt toy manufacturer, The LEGO Group, however not only survive in the market until now, but both their financial performance and non financial performance had been outperformed year by year. The Group achieved a strong revenues amounted to DKK 18,731 millions in 2011 against DKK 16,014 million in 2010 with an increase of 17% and profit for the year amounted to DKK 4,160 million in 2011 against DKK 3,718 million in 2010 with an increase of 12% . The LEGO Group is now one of the world's 3 largest toy manufacturers- the only one in Europe in terms of sales in 2011 in the global toy industry (the others are American and Japanese) with 7.1% market share in 2011.

Their success could be chased back to their 2004 action plan towards their serious financial crisis, with one of the main theme “Restore competitiveness by focusing on customers, in particular their profitability” (LEGO Group, 2004). LEGO Group aim at improve their relationship with customers start from that year. The Group's also put their resources and growing support on activities to collaborate and interact with customers all over the world. Their turning focus leads the early involvement of customers in Group's value chain. This action plan becomes one of the means to combat the unfavorable challenges and lead to company turnaround and success in the difficult

time.

On academic aspect, customer involvement in value chain to collaborate with firm is referred to the term “co-creation” which is an emerging concept from 90s. With continuous changing role of consumers and their demand, customer involvement and interact with producers and engage in co-creation activities during new product and service development or in certain part of value creation process become popular. Consumer demand and their consumption not only focus on product and service, but the critical element of value and experience in 21<sup>st</sup> century. While value and experience cannot create only by firm but engaging stakeholders in the value creation process, co-creation also expands unlimited benefits and value to both stakeholder and firm such as Apple makes use of co-creation to enhance its speed and scope of its innovation to generate over \$1 billion for its App-Store partner-developers platform in two years (Ramaswamy & Gouillart, 2010). The ideas on how value can be created start by 90s scholars define co-creation by reviewing the interactions and relationships between firms and internal & external parties, the definition of co-creation, co-creation activities, co-creation models and related components (Gronroos, 1990; Kambil & Friesen, 1999; Kotler, 1994; Gadrey, 1995; Zeithaml, 1996; Lovelock, 2007; Ramaswamy & Gouillart, 2010).

## **1.2 Research Purpose**

In certain circumstance, co-creation is one of the means to turnaround the LEGO Group.

Thus, our research purpose will be set as follows:

1. To review literature on the emerging concept of co-creation, its definition, category and models, and establish the research framework.
2. To make use of social exchange theory to analyze firm co-creation behavior, examine the relationship evolved and how such relationship contributes to the company performance under social exchange perspective.



## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Co-Creation**

Continuous transformation of consumer's role plays a critical role in value creation, the concept of co-creation becomes the new source of value creation. (Gronroos, 1990; Kotler, 1994; Gadrey, 1995; Zeithaml, 1996; Kambil & Friesen, 1999; Ramaswamy, 2005; Loverlock, 2007; Ramaswamy, 2009). Traditionally, consumers are passive audience to have consumption and usage of the service. They seldom play any role in the perspective of value creation and innovation and the value creation mainly provide

by the firm in the form of product or service. Consumer voices are the input to create and test service and the interaction in between company and consumers but on one way basis only. The intensity of interaction is on a contingent basis with focus on individual knowledge and the audiences are covered only with current consumers (Sawhney & Verona, 2005).

However, researchers in the field of marketing, product innovation and service innovation are paying attention on the changing and transforming role of consumers and their involvement of service development and innovation. From co-creation perspective, consumer engagement is changing to consumer-centric as they become active players as the co-creators of value. Not only as a buyer but evolving into being part of the network to co-create and extract business value, to be collaborators, co-developers and competitors (Cowell, 1988). Nowadays, value is not created by the firm to consumer on one way basis. Consumer could be involved as the key partner in the value creating process, in having the two ways and continuous interaction between company on social and experiential knowledge with prospects and potential consumers (Sawhney & Verona, 2005). Other scholars also expand the scope that firm co-create with consumers, further to other stakeholders in the value chain and delivery of services including suppliers, employees and competitors (Kambil & Friesen, 1999; Prahalad & Ramaswamy, 2004; Vargo & Maglio, 2008), some called it as the global network

(Vargo, 2006; Ramaswamy, 2010).

### **2.1.1 Co-creation Definition**

From 80s, consumer and network partner involvement are playing critical role in value co-creation (Gronroos, 1990; Kotler, 1994; Gadrey, 1995; Zeithaml, 1996; Lovelock, 2007). Scholars define consumer participation as the new source of service production and innovation value. Not surprisingly, the role of consumer has been change from being the consumer and user to the participant in value co-creation process contributing to different innovative tasks or product development (Fuller, 2010).

From 90s, co-creation concept emerged and brought to a new & dynamic concept between relationship of firm and consumer. Co-creation is defined as firm engage consumers directly in the production or distribution of value while consumers can get involved at any stage of the value chain (Kambil & Friesen, 1999). According to the definition from Kambil & Friesen (1999), co-creation means that firm co-creates with their consumer in the value chain and to co-create value.

Other scholars start to focus research on examine the changing role of consumer from conventional value creation process to co-creation experiences. Firms and consumers had distinct roles of production and consumption. While product and service

contain value and the market perform the function to exchange value between firm and consumer. Consumer engagement with firm is the process to define and create the value.

After 90s, co-creation of value definition is based on an individual-centered between consumer and firm. Armed with connective tools, consumer want to interact and co-create value, not just with one company but with whole communities of professionals, service providers, and other consumers (Prahalad, 2004). This definition of value co-creation is similar as Kambil & Friesen (1999), both emphasize firms co-create value during value creation process with consumer and other stakeholder.

Vargo & Lusch (2006) integrate the definition on co-creation from the service logic perspective, to extend the definition further and more comprehensive. According to Vargo & Lusch (2006), the value co-creation consists of two components. Firstly, value can only be created with and determined by the user in the consumption process and through use or what is referred to as value-in-use. Co-creation of value can occur during the interaction of firms and consumers over time while either in direct interaction or mediated by a good. The second component of co-creation is called co-production. It involves the participation in the creation of the core offering itself. It occurs through shared inventiveness, co-design, or share production of related goods, and can occur with consumers and any other partners in the value network. The definition from Vargo & Lusch (2006) is more in details, specific and even broader to cover all partners in



value network.

From 21<sup>st</sup> century, the latest definition is defined by Ramaswamy & Gouillart (2010), they produced a similar definition on co-creation and further emphasizing the power from co-creation for the future. They define co-creation involves both a profound democratization and decentralization of value creation, moving it from concentration inside the firm to interactions with its consumers, consumer communities, suppliers, partners, and employees, and interactions among individuals and firms can require it to develop new capabilities.

The development of co-creation definition starts from firm and consumer further with all other stakeholders in the value network. Both parties interact and participate to co-create during consumption process and service offering process. Four definitions of co-creation from different scholars also put the emphasis on “value co-creation” which is what every service company now concern the most. The change on definition of co-creation matches with the change of service definition which focuses on offering “value” but not only the physical product and service to the consumer (Loverlock, 2007). Table 2.1 summarizes some studies on co-creation definition.

Table 2. 1 Past Studies Researching on Co-creation Definition

Author(s)	Year	Journal	Co-creation Definition
Kambil & Friesen	1999	Outlook Magazine	Co-creation adds a new dynamic to the producer/consumer relationship by engaging consumers directly in the production or distribution of value. Consumers, in other words, can get involved at just about any stage of the value chain.
Prahalad & Ramaswamy	2004	Strategy & Leadership	The future of competition, however, lies in an altogether new approach to value creation, based on an individual-centered co-creation of value between consumers and firms. Armed with new connective tools, consumers want to interact and co-create value, not just with one firm but with whole communities of professionals, service providers, and other consumers. The co-creation experience depends highly on individuals. Each person's uniqueness affects the co-creation process as well as the co-creation experience. A firm cannot create anything of value without the engagement of individuals.
Vargo & Lusch	2006	Journal of Retailing	The concept of co-creation of value represents that value can only be determined by the user in the consumption process; it occurs at the intersection of the offerer, the consumer-either in direct interaction or mediated by a good and other value-creation partners. The idea of co-creation is closely tied to "value in use" and highly related to the concept of consumer experience. The second component of co-production involved the participation in the creation of the core offering itself, and therefore, probably more appropriately referred to as "co-production". It can occur through shared inventiveness, co-design, or

			shared production and can occur with consumers and any other partners in the value network.
Ramaswamy & Guillard	2010	The Power of Co-creation	Co-creation involves both a profound democratization and decentralization of value creation, moving it from concentration inside the firm to interactions with its consumers, consumer communities, suppliers, partners, and employees, and interactions among individuals and firms can require it to develop new capabilities.

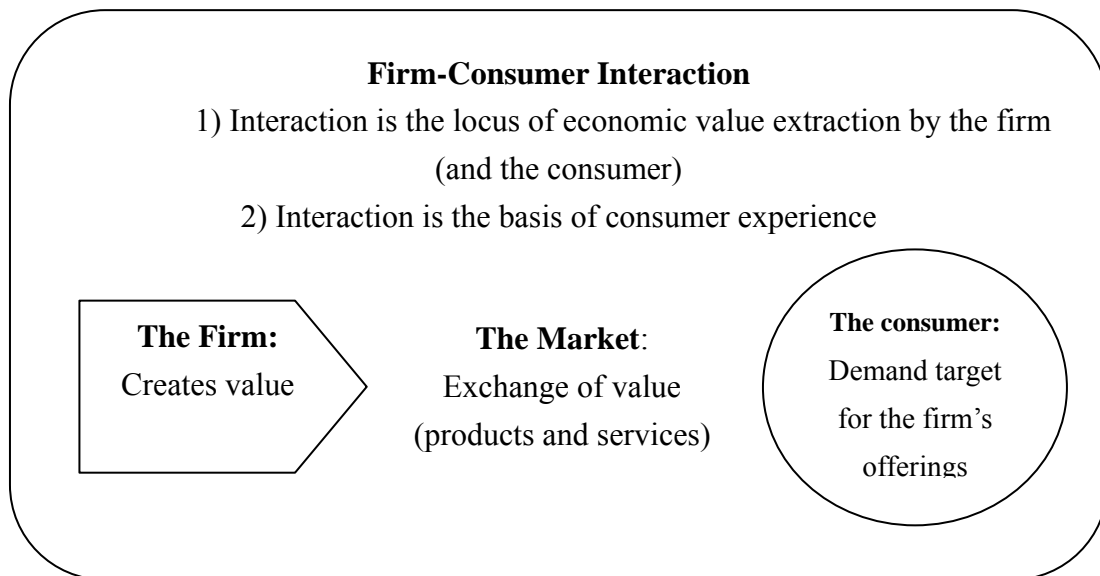
### 2.1.2 Co-creation Category

To further understand the concept of co-creation, examination on co-creation category is essential as an overview. Basically co-creation category can be divided into two perspectives, the market perspective and service systems perspective.

#### Market Perspective

Traditionally from market perspective, the concept of a market is a media for firm and consumer in exchange of value (product and service). Hence, the value source is by providing product and service. Consumer raise their demand to firm and firm is the only centric to create value to them. The traditional interaction is the locus of economic value extraction by the firm and the consumer and it is also the basis of consumer experience.

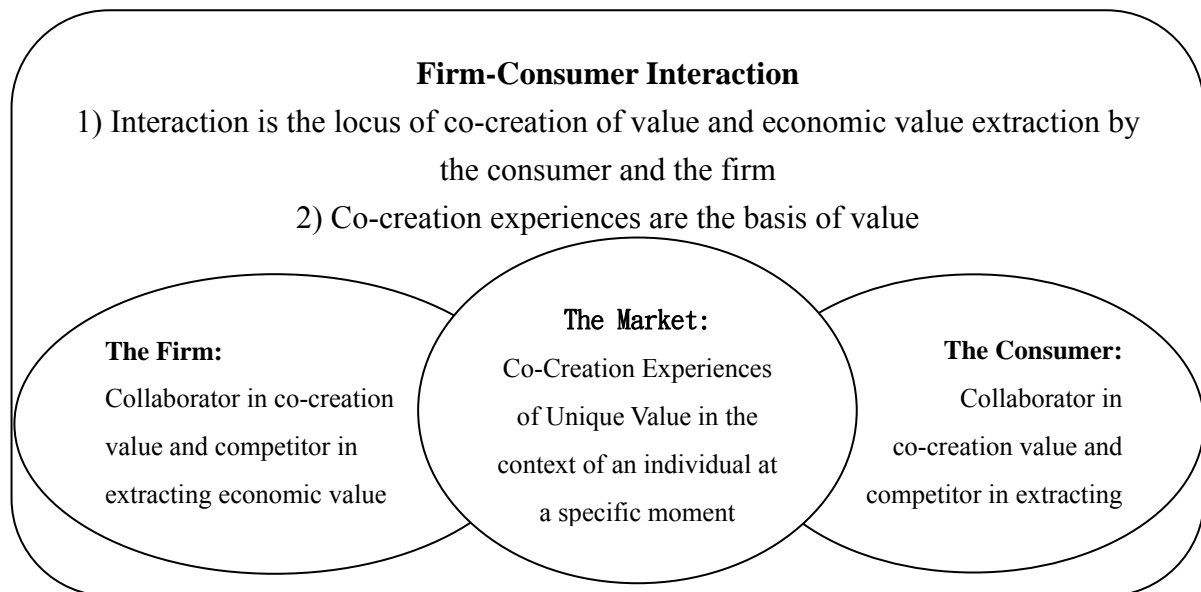
Figure 2.1 summaries the traditional concept of a market in value creation.



**The market is separate from the value creation process**

Figure 2. 1 The Traditional Concept of a Market (Prahalad & Ramaswamy, 2004)

However, Prahalad & Ramaswamy (2004) mentioned the market has been emerged and integrated into the value creation process. Market is the media for firm and consumer stimulate co-create experiences of unique value of an individual at specific moment. Firm start to collaborate with consumer that co-create value and also they are competitor in extracting economic value. Figure 2.2 summaries the emerging concept of the market in value co-creation.



**The market is integral to the value creation process**

Figure 2. 2 The Emerging Concept of the Market (Prahalad & Ramaswamy, 2004)

### **Service Systems and Service Logic Perspective**

From service systems and service logic perspective, Vargo & Maglio (2008) introduce the service system concept as a useful abstraction for understanding value and value co-creation. A service system is an arrangement of resources including people, technology, information, etc connected to other systems by value propositions (Spohrer et al., 2007; Spohrer et al., 2008). So the exchange of a system's applied operant resources with those of other service systems could improve its circumstance and this is why service systems co-create value since their interdependence drives service-for-service exchange and resource integration. The relationship is the basic of economic exchange and it can be reframed among value-in-exchange, value-in-use and

value co-creation among service system in figure 2.3 as follows. Table 2.2 summaries the past studies on category of value co-creation.

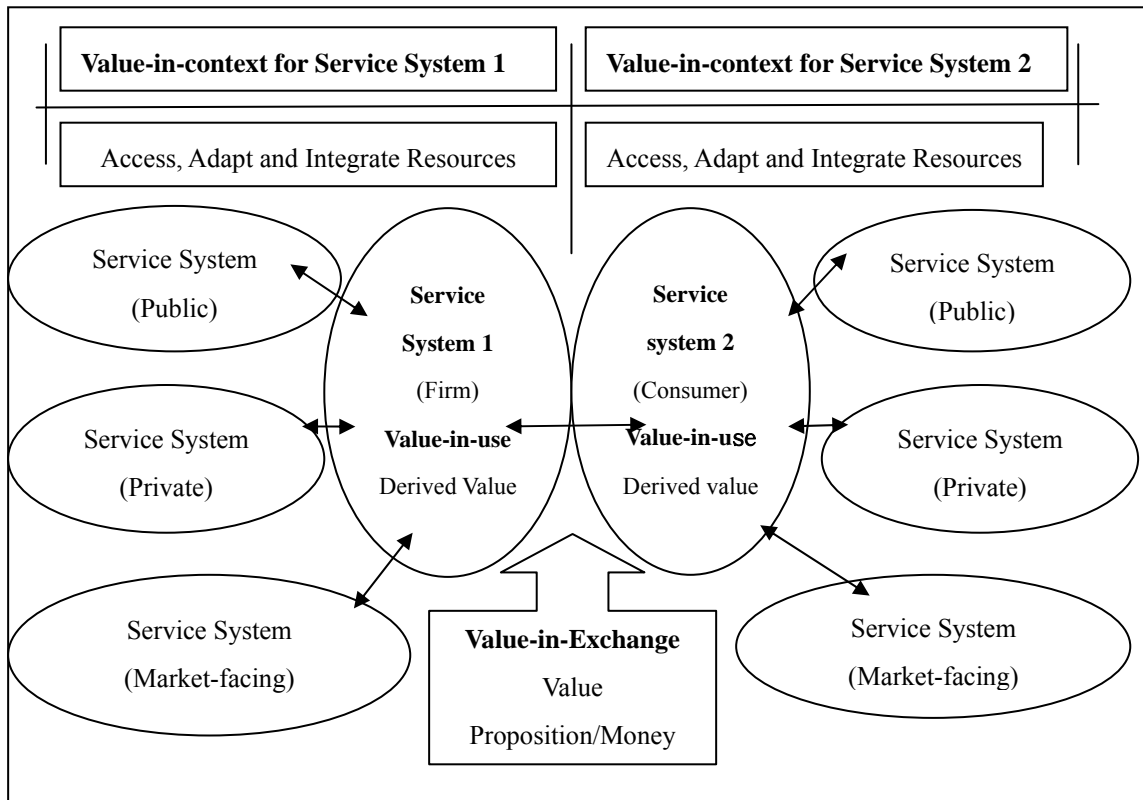


Figure 2. 3 Value Co-creation among Service Systems (Vargo & Maglio, 2008)

Table 2. 2 Past Studies Researching on Co-Creation Category

Author(s)	Year	Journal	Co-Creation Category
Prahalad & Ramaswamy	2004	The Future of Competition	<b><u>Market Perspective</u></b> Value exchange and extraction are the primary functions performed by the market, which is separated from the value creation process in traditional conception of process of value creation. The emerging concept of a market focus is the firm and the consumer are both collaborators and competitors in co-creating value and competitors for the extraction of

			economic value and the market as a whole becomes inseparable from the value creation process.
Vargo & Maglio	2008	European Management Journal	<p><b><u>Service Systems and Service Logic Perspective</u></b></p> <p>Service system is a useful abstraction for understanding value and value co-creation. Specifically, for service systems, we define value simply in terms of an improvement in system well-being and we can measure value in terms of a system's adaptiveness or ability to fit in its environment.</p>

### 2.1.3 Co-Creation Models

Since co-creation is an emerging concept and create value both to firm and stakeholder, several co-creation models are generated by scholars. Prahalad & Ramaswamy (2004) present four building blocks of co-creation named DART (Figure 2.4 & Table 2.3). DART are dialogue, access, risk assessment and transparency. Each building block is essential to be considered in the process of value co-creation and with combination of four building blocks in different way, they can create different new and important capabilities to the firm. Prahalad & Ramaswamy (2004) pinpointed the most challenging issue is the point of interaction between consumer and firm, that is where the co-creation experience occurs and where value is co-created. Interaction provides the opportunities for collaboration and negotiation, explicit or implicit, between them. Firms require establishing rich dialogues to create and maintain a loyal community

which focuses issue that both the consumer and firms interested. Also, firm should ensure the availability of information and tool for consumer to access both sides knowledge such as websites. Consumer can experience value not only by ownership of the service or product but the accessibility to experience at multiple points of interaction with firm and while firm can broadens their business opportunities. Risk-return stands for risk assessment that firms should make use of active dialogue on the risks and benefits involved in using products and services to create a new level of trust between them. Consumers would demand more information about potential risks of goods and services when they become co-creators of value and bear their responsibility. Firm should enhance the transparency in co-creation between consumer and firm keep information about products, technologies, and business systems open. This would enable both firm and consumer able to extract the values they want and create the trust between them.



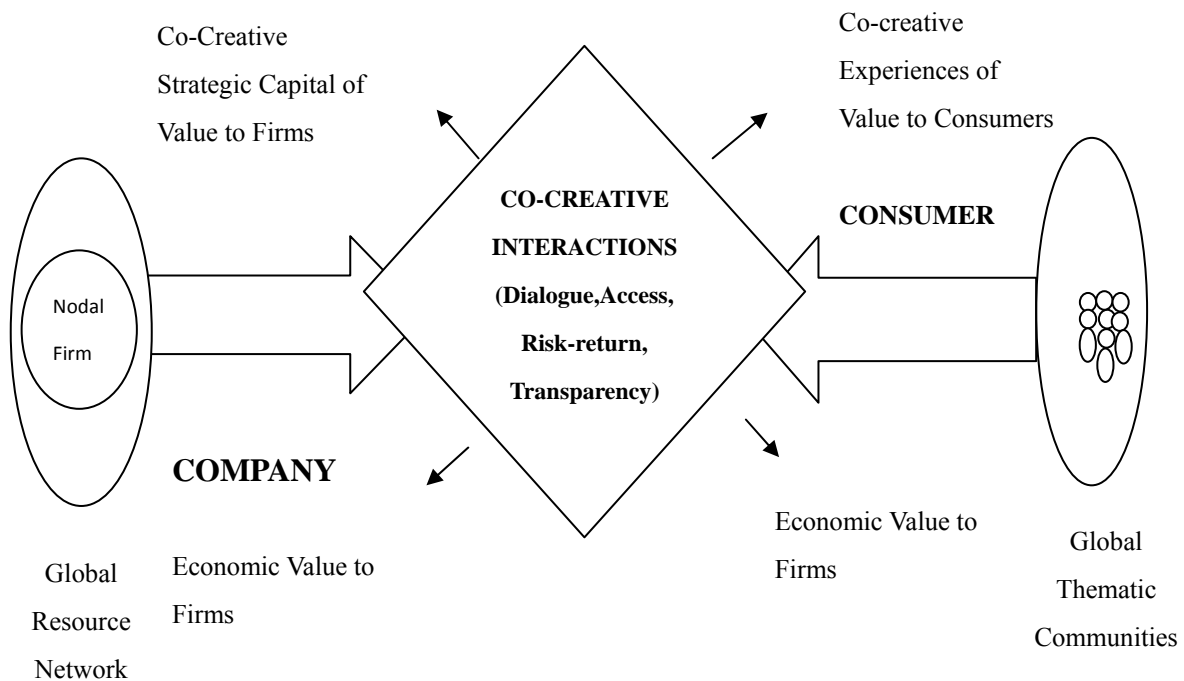


Figure 2. 4 Co-creating Value through Experiences (Prahalad & Ramaswamy, 2008)

Table 2. 3 The DART Model (Prahalad & Ramaswamy, 2008)

<b>DIALOGUE</b>	<b>ACCESS</b>
Dialogue means interactivity, deep engagement, and a propensity to act-on both sides. Dialogue creates and maintains a loyal community.	Access begins with information and tools. Access can also involve on-demand resources such as computing. Access can also transform the capacity for self-expression.
<b>TRANSPARENCY</b>	<b>RISK-RETURN</b>
Firms should no longer assume opaqueness of prices, costs, and profit margins. Information about products, technologies, and business systems becomes more accessible, creating new levels of transparency becomes increasingly desirable.	Risk Assessment refers to evaluate the probability of harm to the consumer. The move to co-creation intensifies the risk and the trade-off between risks and benefits.

Based on the DART model concept, Ramaswamy (2009) further expand his studies on co-creation with another scholar, Gouillart, who is the founder of the Experience Co-Creation Partnership. In 2009, they create a co-creation diamond model to demonstrate how to adopt co-creation in the firm and how the firm can expand conventional value creation by co-creation. According to Ramaswamy(2009), the co-creation diamond model involves four dimensions as shown in Figure 2.5. It classifies firm have to adopt co-creation practice by considering on four dimensions, global network and communities of individual (Who), human experience environments (Why), interaction anywhere in the system (Where) and engagement platform (How). By successfully put the four dimension of co-creation into practice, firm can receive the new expanded “WHAT” with transformed products and services, firm and its activities, business and management processes, firm and its employees and leverage the new value from all of them. The co-creation diamond model further broadens the understanding on how conventional firms adopt co-creation to expand their value creation.

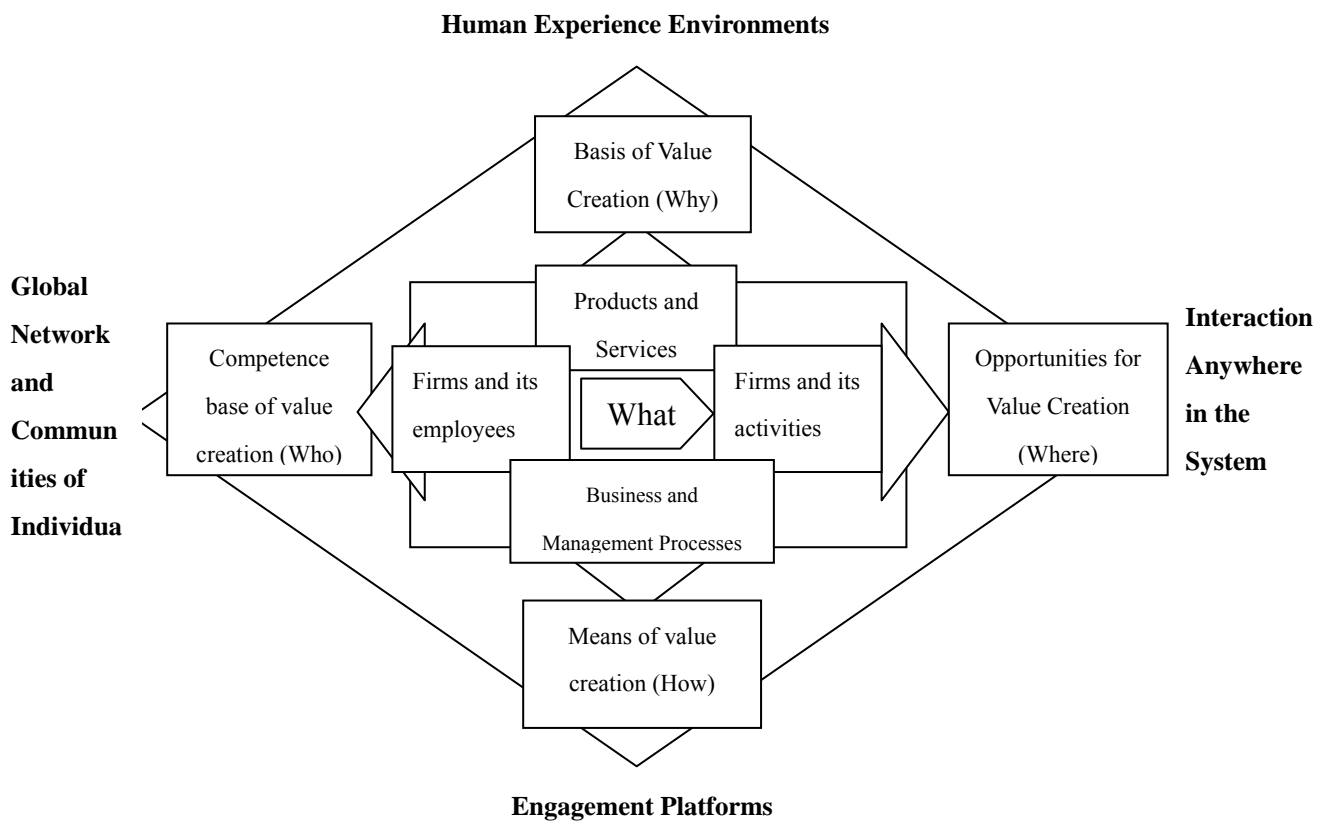


Figure 2. 5 Co-Creation as Expanding Conventional Value Creation (Ramaswamy & Guillard, 2010)

This model further modified by same authors in 2010, establishing the core four principles of co-creation. The four core principles are network relationships, experience mind-set, context of interactions and engagement platforms as shown in Figure 2.6 (Ramaswamy & Guillard, 2010).

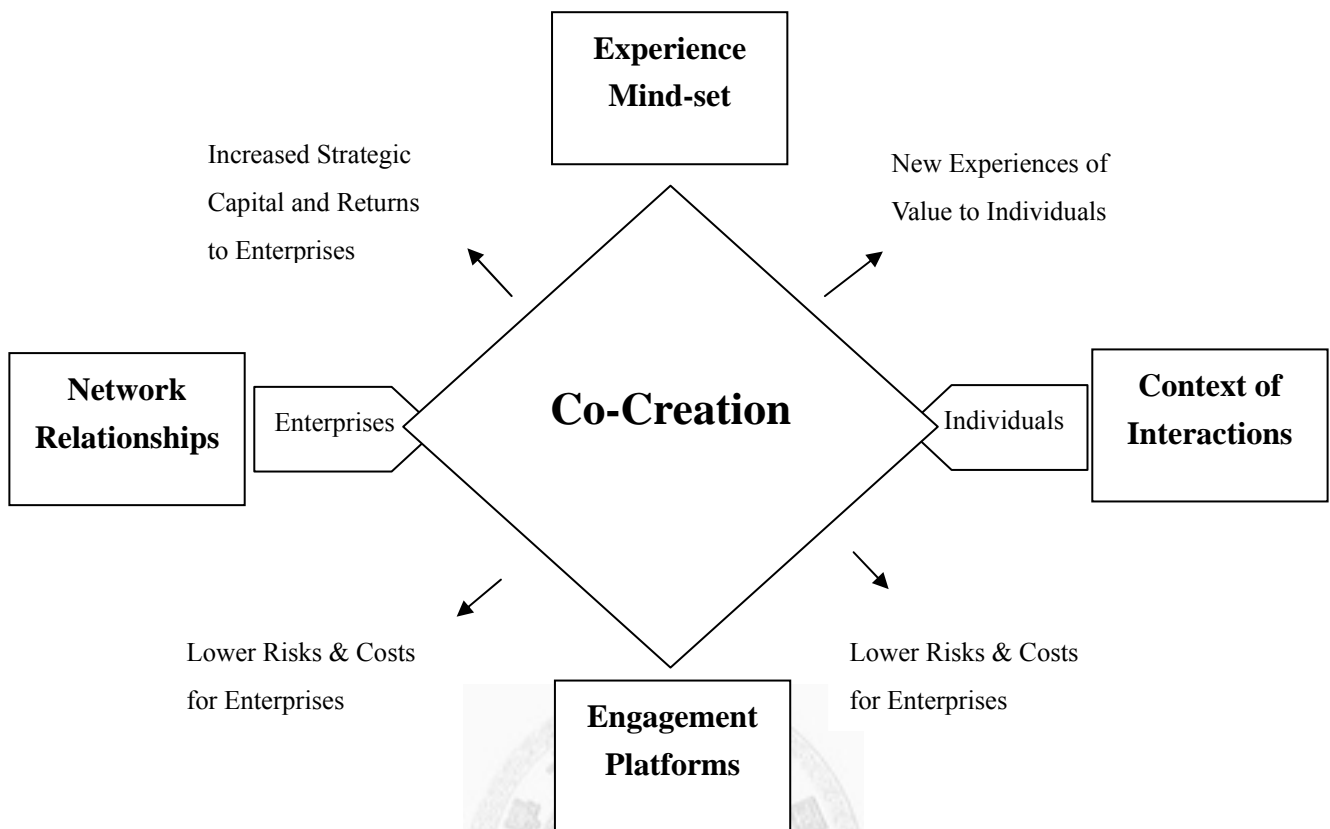


Figure 2.6 The Core Principle of Co-Creation (Ramaswamy & Guillard, 2010)

With emerging technology development in today's virtual business environment, Fuller (2010) develop a virtual co-creation framework from a consumer perspective to view co-creation from the eye of consumer. The basis of the framework was drawn from the social exchange theory from Anderson et al in examining the reason why consumer wants to exchange and collaborate with firm. It integrates five dimensions about what consumer would consider in virtual co-creation. The five dimensions are content/task (What), process/tools (How), partner (With Whom), motives (Why) and personal characteristics (Who) (Figure 2.7). The framework is similar as Ramaswamy (2009)

co-creation diamond model. The main difference of this model is viewed from consumer perspective while co-creation diamond model is viewed from firm perspective. The study also divides consumer personal characteristics into four groups: curiosity, intrinsic, need and reward to examine their motives to co-create.

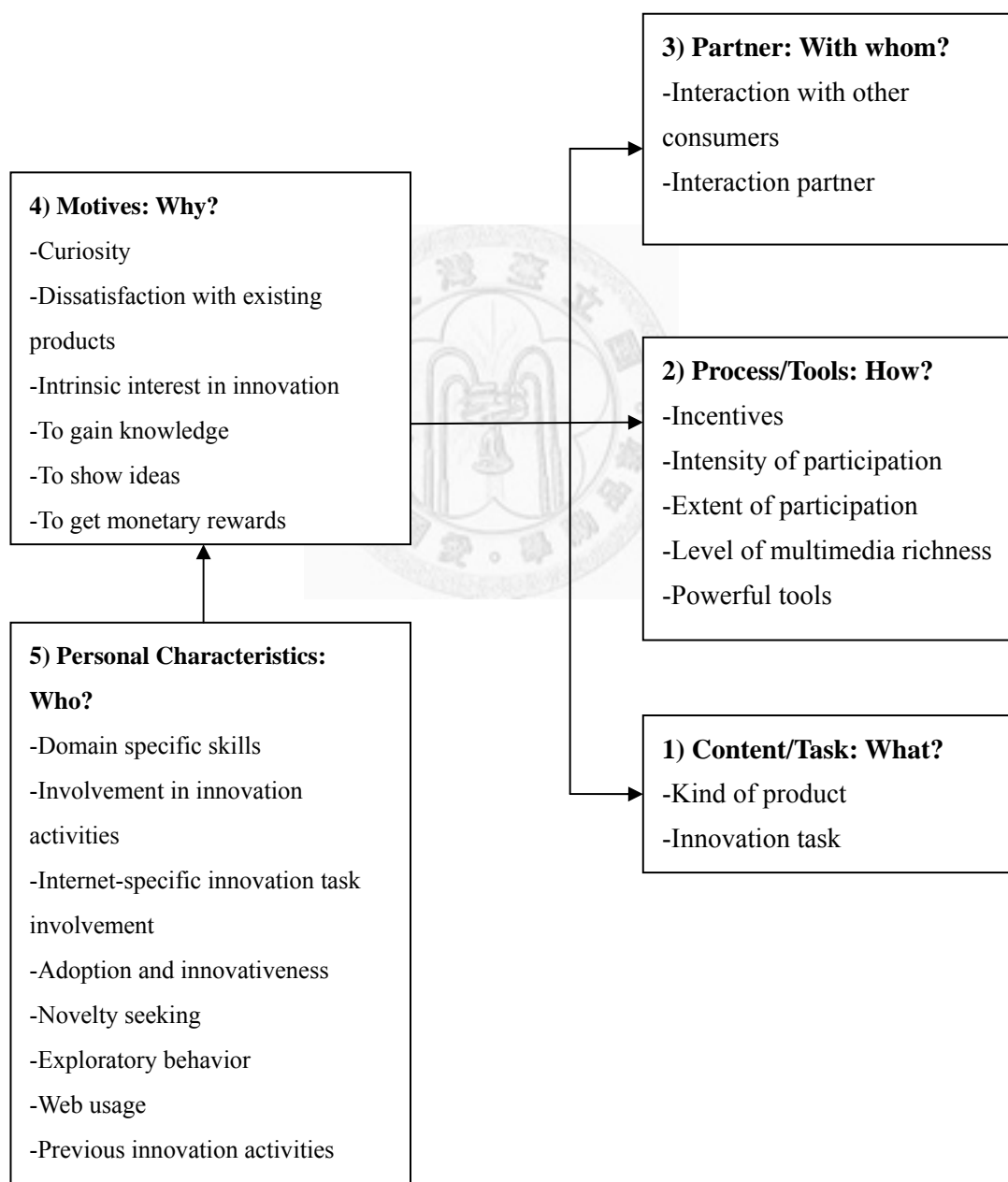


Figure 2. 7 Virtual Co-Creation Research Framework (Fuller, 2010)

To summarize past studies on co-creation, the concept of co-creation is still emerging and the definition is still modifying to make it clearer by scholars. Generally, the definition of co-creation made by Ramaswamy & Gouillart (2010) can be referred to involve both a profound democratization and decentralization of value creation, moving it from concentration inside the firm to interactions with its consumers, consumer communities, suppliers, partners, and employees, and interactions among individuals and firms can require it to develop new capabilities.

Past literatures also emphasizes on different constructs on stakeholder (Kambil & Friesen, 1999; Prahalad & Ramaswamy, 2000; Bettencourt & Ostrom, 2002; Prahalad & Ramaswamy, 2004; Etgar, 2008; Fuller, 2010; Ramaswamy & Gouillart, 2010), process/tools (Thomke & Hippel, 2002; Fuller, 2010; Ramaswamy & Gouillart, 2010), task and content (Kambil & Friesen, 1999; Prahalad & Ramaswamy, 2000; Nambisan, 2002; Bettencourt & Ostrom, 2002; Prahalad & Ramaswamy, 2004; Etgar, 2008; Fuller, 2010; Ramaswamy & Gouillart, 2010), co-creation experience (Pralhad & Ramaswamy, 2000; Nambisan, 2002; Prahalad & Ramaswamy, 2004; Ramaswamy & Gouillart, 2010), firm's motivation (Kambil, & Friesen, 1999; Prahalad & Ramaswamy, 2000; Thomke & Hippel, 2002; Prahalad & Ramaswamy, 2004; Ramaswamy & Gouillart, 2010, Fuller, 2010), and firm's risk and cost (Kambil, & Friesen, 1999; Prahalad & Ramaswamy, 2000; Thomke & Hippel, 2002; Prahalad & Ramaswamy,

2004; Etgar, 2007, Ramaswamy & Guillard, 2010).

Table 2. 4 Main Constructs of Past Studies of Co-creation

Author(s)	Main Constructs						
	Stakeholder	Platform	Process/ Tools	Task /Content	Co-create Experience	Firm's Motivation	Firm's Cost/ Risk
Kambil, & Friesen (1999)	•	•		•		•	•
Prahalad & Ramaswamy (2000, 2004)	•	•		•	•	•	•
Bettencourt & Ostrom (2002)	•			•			
Nambisan (2002)		•		•	•		
Thomke & Hippel (2002)			•	•		•	•
Etgar (2008)	•			•			•
Fuller (2010)	•		•	•		•	
Ramaswamy & Guillard (2010)	•	•	•	•	•	•	•

## 2.2 Social Exchange Theory

Social exchange theory is one of the most influential and useful concept to explain organizational behavior. The basic concept of social exchange describe a relationship

between two parties that involves a series of interactions that generate obligations (Emerson, 1976) and these interactions are usually interdependent and contingent on the actions of another person (Blau, 1964). Such interdependent transactions have the potential to generate high-quality relationships. The foundation ideas of social exchange theory can be explained by three powers: rules and norms of exchange, the resources of exchange, and social exchange relationships.

### **2.2.1 Rules and Norms of Exchange**

According to social exchange theory, the relationships between two parties evolved over time into trusting, loyal and mutual commitments. To enable the relationship to emerge, both parties must follow certain “rules” of exchange. The rules and norms of exchange are “the guidelines” of exchange processes. Accordingly to Emerson (1976), the rules of exchange form “a normative definition of the situation that forms among or is adopted by the participants in an exchange relation. The basis of the exchange rule or principle were developed by many management research focus on expectations of reciprocity and some other exchange rules also outlined by other scholars. Basically, the rules and norms of exchange can be divided into three categories: Reciprocity Rules, Negotiated Rules and beyond Reciprocity and Negotiated Rules.



## **Reciprocity Rules**

Reciprocity is the well-known and common exchange rule. The nature of reciprocity within exchange and distinguishing three different types of reciprocity: (1) Reciprocity as a transactional pattern of interdependent exchanges, (2) reciprocity as a folk belief, and (3) reciprocity as a moral norm (Gouldner, 1960).

### **(1) Reciprocity as a transactional pattern of interdependent exchanges.**

Interdependence refer to that the outcomes are based on a combination of parties' efforts. An interdependence exchange requires bidirectional transaction, something given and something returned. It involves a mutual and complementary arrangement which is a characteristic of social exchange (Molm, 1994). This reciprocal interdependence emphasizes contingent interpersonal transactions, while an action by one party leads to a response by another. When one party supplies a benefit, the receiving party should respond in kind (Gergen, 1969). Interdependence reduces risk and encourages cooperation (Molm, 1994). It's become a process that once it begins when at least one participant makes a move and if the other reciprocates new rounds of exchange initiates.

**(2) Reciprocity as a folk belief.** By Gouldner (1960), this refers to the cultural expectation that people get what they deserve bad "karma". Under folk belief, parties participate in the transactions accept the sense that over time all exchanges reach a fair equilibrium, those who are unhelpful will be punished and who are helpful will receive

help in the future. Generally, they expect what they give will be rewarding in the future (Malinowski, 1932).

**(3) Reciprocity as a moral norm.** Reciprocity refers as a cultural mandate; parties ought to follow and otherwise who do not comply will be punished (Malinowski, 1932; Mauss, 1967). The norm establishes as a standard how people behave and follow such norm would obligate to behave reciprocally.

### **Negotiated Rules**

More explicit negotiated rules exist when different parties of exchange try to expect beneficial arrangements (Cook & Emerson, 1978); Cook, Emerson, & Gillmore, 1983).

Under negotiated rules, the duties, obligations and reward in exchange are more in detail, explicit and understood by parties. The element of exchange may be beyond short-term agreements and may or may not be bound by legal or contractual sanctions.

But negotiated exchanges are often involved of economic transactions.

### **Beyond Reciprocity and Negotiated Rules**

Beyond reciprocity and negotiated rules, there are some further exchange rules viable and developed by other scholars; one well-known model was by Meeker (1971).

He proposed six rules to guide how individual make the choice on interpersonal exchanges includes: reciprocity, rationality, altruism, group gain, status consistency, and competition. Reciprocity refers to same meaning as above drawn. Thus, another five

rules of exchange will be examined in detail.

Rationality refers to parties make use of logic means to achieve likely consequence such as end of value maximization as the basis to decide a rational action. Altruism refers to a rule that parties seek to benefit another person even at absolute cost to ourselves. Group gains refers to individual take what they need and contribute what they able in the single common “pot” and all things are held in common. Status consistency refers to the allocation of benefits based on one’s station within a social group such as legacy status. Competition is a rule that opposite to altruism. Parties are harming others even if hurt own earnings (Meecker, 1971).

Table 2. 5 Summary of Rules and Norms of Exchange (Cropanzano & Mitchell, 2005)

Categories	Types	Description
Reciprocity Rules	<b>Reciprocity as interdependent exchange</b>	*Outcome based on a combination of both parties' effect.
	<b>Reciprocity as a folk belief</b>	Cultural expectation, people get what they deserve bad “karma”
	<b>Reciprocity as a norm &amp; individual orientation</b>	A Cultural Mandate, Parties “ought” to follow these norms, or will be punished
Negotiated Rules		<ul style="list-style-type: none"> <li>- Parties Negotiate in hope of reaching beneficial arrangements</li> <li>- Obligations and rewards are more explicit</li> <li>- Incite more unhelpful power use &amp; less quality</li> </ul>
Beyond Reciprocity & Negotiated Rules	<b>Reciprocity</b>	Same as *
	<b>Rationality</b>	Rational Action=Value Maximization+Logic Means
	<b>Altruism</b>	Benefit another, absolute cost to ourselves
	<b>Group Gain</b>	Take and contribute into a common “Pot”
	<b>Status Consistency</b>	Allocation of benefits based on one’s station within a social group, or attribute
	<b>Competition</b>	Opposite of Altruism, harming others even if hurts own earning

4

### **2.2.2 The Resources of Exchange**

What is exchanged between parties is referring to the resources of exchange. It can be viewed both in terms of economic value and symbolic relevance. According to Foa and Foa's (1974;1980) resource theory presents six types of resources in exchange: love, status, information, money, goods, and services by two dimensional matrix (Fig 2.8). One dimension is resource's particularism vs universalism which means the resource's worth varies based on its source. From the six types of resources, money can be defined as low particularism (universalism) since its monetary value is constant regardless of who provides it. However, love is defined as high particularism and highly important depends on its source. Another dimension refers to resource's concreteness which means how tangible and specific of the resource. Tangible service and goods are classified as concrete but symbolic benefit such as status somehow goes beyond objective worth.

Types	2 Dimensions	
Love	<u><b>Particularism</b></u> (eg. Love)	<u><b>Concreteness</b></u> (eg. Goods & Services)
Status		
Information		
Money	<u><b>Universalism</b></u> (eg. Money)	<u><b>Symbolic</b></u> (eg. Status)
Goods		
Services		

Figure 2. 8 Six Exchange Resources Two-dimensional Matrix (Foa and Foa, 1974, 1980)

### 2.2.3 Social Exchange Relationships

Generally, relationships can be referred to an association between two interacting partners (individual or institutions). Different forms of social exchange relationship evolved between workers with their immediate supervisor (e.g. Liden et al., 1997), co-workers (e.g. Cox, 1999; Deckop, Cirka, & Anderson, 2003; Ensher, Thomas, & Murphy, 2001; Flynne, 2003), employing organizations (e.g., Moorman, Blakely, & Niehoff, 1998), customers (e.g. Houston, Gassnheimer, & Moskulka, 1992); Sheth, 1996), and suppliers (e.g., Perrone, Zaheer, & McEvily, 2003). Blau's (1964) framework describe how the social exchange relationship emerged by his comparison of economic and social exchange. He argued "that basic an most crucial distinction is that social exchange entails unspecified obligations" (1964;93) and "involves favors that create

diffuse future obligations...and the nature of the return cannot be bargained” and “only social exchange tends to engender feelings of personal obligation, gratitude, and trust; purely economic exchange as such does not”. He also argued that “the benefits involved in social exchange do not have an exact price in terms of a single quantitative medium of exchange”, which means that social exchange create a social patterns. Supported by Mills and Clark (1982; Clark & Mills, 1979), they also argued that social exchange relationship is communal relationship. It is open-ended, less time specific, involve the exchange of socioemotional benefits and place greater emphasis on the needs of the other party.

In conclusion, social exchange theory is conceptual paradigms to explain the behavior in organizational behavior especially comprise relationship between two interacting parties. Social exchange theory comprises actions contingent on rewarding reactions of others, which over time in a long term basis that evolved into a loyal, trusting and mutually and rewarding transaction and relationships. In this research, social exchange theory will be applied to the case and explain the behavior of co-creation in the perspective of social exchange between firm and its interacting parties.

## **CHAPTER 3: RESEARCH METHODS**

### **3.1 Case Methodology**

Based on past literature review, co-creation is a relatively new concept that require more observations to develop its own theory. In making use of case methodology, it allows us to have a more detailed observation that reveal subtleties of behavior (Allport, 1961) and case study research also leads researchers to find new theoretical relationships that to question the old one (Eisenhardt, 1989).

In this study, secondary data are collected by the following steps. First, the information will be gathered both on background of the firm and how its co-creation activity and interaction with customers from its homepage (<http://www.lego.com>) and other publications such as the LEGO Group annual report (from 2004 to 2011) and progress report (from 2006 to 2011), The LEGO Group company profile 2011, academic journals, case studies, other news and magazines. Internet resources and information will also be used as supplements.

### **3.2 Research Framework**

This research framework will be based on the literature review on co-creation

definition, category and models to elaborate the co-creation activity in the case of LEGO Group. Secondly, social exchange theory will be applied to the case and examine firm's behavior of co-creation by the rules and norms of exchange, the resources of exchange and the social exchange relationships in the interaction of LEGO Group and its interacting parties.

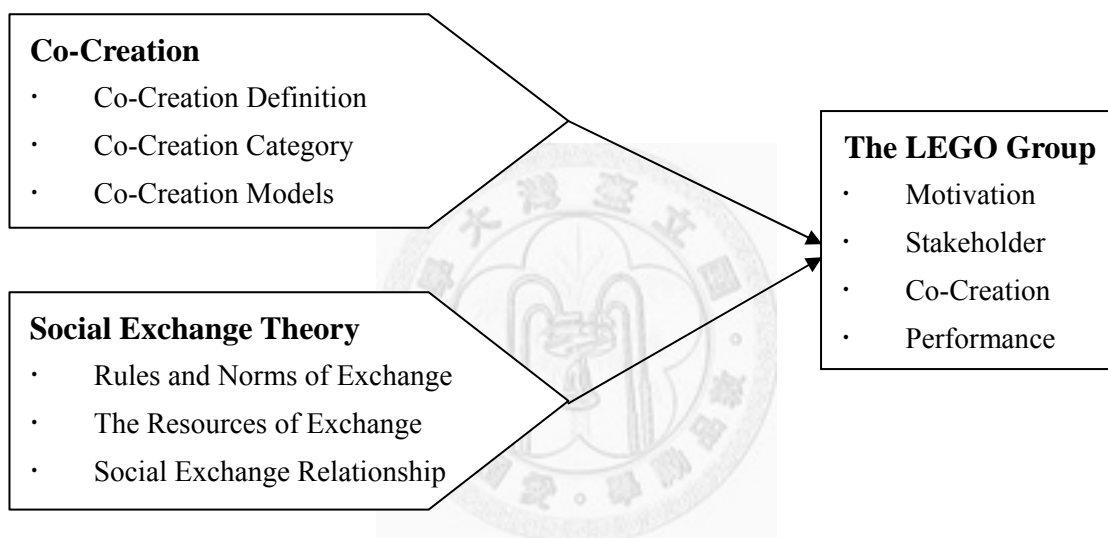


Figure 3. 1 Research Framework (This Study Reviewed)

### 3.3 Study Case Profile (The LEGO Group)

The LEGO Group, the world's third largest toy manufacturer, was found in 1932 and headquartered in Billund, Denmark. The name of LEGO was found by the first two letters of the Danish words LEG GODT, meaning "play well", and combined them to the quite unaware one meaning of the word in Latin is "I put together". It pioneered the unique and well-known LEGO brick in 1958 as the core business and maintained its

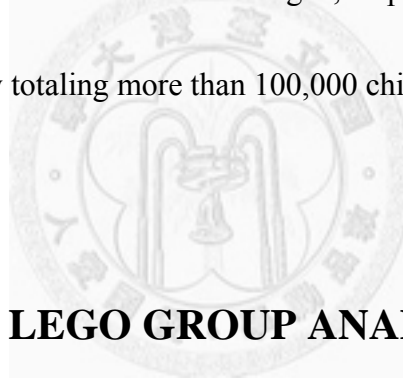


leading position in the global toys industry with awarded as “Toy of the Century” by Fortune Magazine and later by the British Association of Toy Retailers nowadays (The LEGO Group, 2011). Caused by the crucial change in toy industry LEGO Group faced serious financial crisis with declining performance with operating loss DKK \$1,162 million, net loss DKK \$1,931million with fell in sales 7% in 2004.

To overcome such unfavorable situation, LEGO Group laid out its 2004 action plan to highlight the importance to restore competitiveness by focusing on consumers, in particular their profitability (LEGO Group, 2004). In 2006 annual report, LEGO put forward with the announcement that “The LEGO Group sees its direct contact to the consumers as something very unique and as an extremely significant asset for the development of both existing and new business. LEGO fans are involved in the product development in several areas and stages of the development process. The LEGO Group considers such very direct involvement of the users as important innovative driver in relation to the coming years’ preparations for growth. By means of close contacts with the users, the company obtains unique knowledge of the wishes and needs of the users, and this will be applied in the development and marketing of the LEGO products.’

A series of actions has been followed by such as set up a simplified organizational structure to be more customer focus, start to adjust its price and product development process in response the feedback from retailers and consumers. Further,

they show a growing support of LEGO activities play-oriented children and adults to gain their timeless product idea, enhance the uniquely coherent construction system, creates fun, engaging and creative developmental play. There are also activities begin to have collaboration with customers by ongoing dialogue day-to-day contact and interaction with fans and consumers throughout the world, such as the set up of The LEGO Club which now with membership of more than 2.3 million children aged 6-12 years and total members with more than 4 million or LEGO Mindstorms based global robot competitions, such as FIRST LEGO League, experienced an increase in the number of participants, now totaling more than 100,000 children.



## **CHAPTER 4: THE LEGO GROUP ANALYSIS**

The LEGO Group case analysis is divided into five parts: Motivation, stakeholder, co-creation, performance and value.

### **Motivation**

With increasing demand of shorter market life cycle of traditional toy, the involvement of customers in product design and development is to reduce the product development time, flexibility, the lead times and inventories to retailers. Further, with

closer collaboration and understanding with end customers, LEGO Group would be able to be more responsive to the changing needs of the market such as they can gather timeless product ideas, improve the product uniquely. This enables LEGO to gain valuable insight into consumer wishes and behavior and consumers have direct influence on the range of LEGO products that ensure the product could appeal to customers.

### **Stakeholder**

To restore competitiveness and the profitability in the market, LEGO Group selects customers as the target to collaborate. The willingness to co-create with LEGO depends on whether the customers own certain competence such as creativity, imagination, skills, knowledge, and expertise in LEGO products. Most of them are loyal customers which consist of high innovativeness, active in contributing their innovative ideas and high web usage. Customers also have both intrinsic and extrinsic motivation such as contribute their idea, curiosity towards LEGO co-creation activity; some of them may be dissatisfied with existing products or want to gain knowledge and would like to share their innovative ideas with others. Most of them expect that their contribution in exchange will be rewarding by LEGO Group, such as money (royalties) and prizes (LEGO products). There is also a group of loyal LEGO fans called AFOLs “Adult Fans of LEGO” which are the active online group of loyal customers regularly and directly

communicate and collaborate with LEGO Group's designer and employees in many product development projects on long term basis, in which they enjoy more intrinsic motivation such as sharing ideas, maintain friendship with other fans and co-create experience to participate development of LEGO product.

## **Co-Creation**

There are two major co-creation conducted by LEGO Group: product design and development of own LEGO brick model and product design and development of LEGO's new generation of LEGO Mindstorms NXT robot.

### **1. Co-Create in product design and development of LEGO brick model**

In product design and development, LEGO Group starts to collaborate with its customer by setting up a virtual community platform [www.LEGOFactory.com](http://www.LEGOFactory.com) to offer a customized LEGO model service. Customer only need to download free of charge special software application, LEGO Digital Designer (LDD), can design 3-D LEGO models, share, download, store, purchase other customer's creation, LEGO Group would calculate the bricks and other components required and generate the building instructions. In the community, other customers can order, add suggestions, vote and gain material and input from LEGO designers and other fans. Furthermore, Customer

can join the LEGO Factory competitions for LEGO prizes. New winners are selected every week over 11 weeks. Winners can receive LEGO products and compete for the certification of “professional LEGO Factory designer”, which entitles them to have their model mass produced and sold in LEGO brand store and on [www.LEGO.com](http://www.LEGO.com). 10 final winners will receive a 5% royalty on each set sold.

Above co-creation activity can be examined by the social exchange theory about both parties behavior. We can see the rules and norms of exchange between LEGO Group and their customers are more on a negotiated rules basis in the competition. Both LEGO Group in hope to benefit from new product model for mass production that would generate extra profit to the group and customers would expect sharing of 5% royalties, receive LEGO product prize and recognized with a certification by exchanging their innovative design idea. Both parties are negotiating to reach their beneficial arrangements. The obligations and rewards are also more explicit that LEGO Group would issue certification of “professional LEGO Factory designer” to the winners to recognize their contribution which can see as the symbolic status. LEGO Group offer their concrete LEGO goods and services, symbolic status and money in exchange of customer’s information and ideas. Basically, the co-creation activity is in a social exchange setting that enables LEGO Group and customer evolved to a social exchange relationship. LEGO Group start to “care” about what customer’s thinking,

interest in and accept their ideas, and even would like to take customer's idea and put into real mass product production which shows their "trust" towards their ideas, which enable a strong relationship evolvement and pushing forward more participation of customers in future product development, their contribution and participation to LEGO Group is under unspecified obligation in future co-creation activity.

### **Value Co-Creation**

In making use of the DART co-creation model, we can further analyze on how LEGO Group co-create extra value with customers on the virtual LEGO factory platform. The key value co-created by LEGO factory is to make use of the platform to allow enhance customer's experience in co-creation.

**Dialogue.** The LEGO factory virtual platform encourages continuous meaningful dialogues, between AFOLs and LEGO, among AFOLs and between AFOLs and new customers. AFOLs and customers can engage in real-time interaction online and groups of AFOLs can also comment on each other design or cheer on each other design, make suggestion and solution when problem encounter in the progress of design.

**Access.** LEGO provide its customers with access to each other and to internal parties of designers and employees. The access is provided by the LEGO factory virtual community platform, LEGO digital designer software and the LEGO web site.

**Risk-return relationship.** For customers, LEGO factory enhances the economic value of participation for customers by having their own design brick model. Customers can design their own model easily by using the LEGO Digital Design software and make an order online. They also learn how to make a design to be perfect by sharing everything with the virtual community. From firm's perspective, LEGO's main risk is losing the relationship with customers if their products are not appeal enough. However, LEGO factory lowers the risk of losing customers because customers are interacting with LEGO factory frequently, sharing their own models and soliciting and receiving feedback from LEGO designers and employees regularly.

**Transparency.** For AFOLs, LEGO factory and makes transparent huge range of information about LEGO bricks model design, including design ideas, suggestion and solutions. LEGO Group learns a lot about individual LEGO fans that was previously opaque to them. The input from the customers provides LEGO with a goldmine of ideas for current and future innovations.

By using the DART model, LEGO can co-create mutual value continuously. For example, customers and AFOLs using the LEGO factory platform to access a host of new experiences, such as they can integrate their passion on LEGO and their innovativeness, they can share their innovative ideas with similar passionate fans, and they can take part in an active, new social network. The LEGO factory also enhances

LEGO fans enjoyment of the LEGO bricks and increases their motivation.

For LEGO, the learning from these customer interactions creates new strategic capital. They learn directly from the customer’s behavior, their data of design favorite, votes from the customers direct input on their preferences. Also, LEGO build up a relationship and trust with the LEGO factory community and experiment new product offering and further obtain brand enhancement.

Table 4. 1 Summary of LEGO Group Value Co-creation with Customers on LEGO Factory

<b>DIALOGUE</b>	<b>ACCESS</b>
Rich dialogues between the customers, AFOLs and LEGO, among AFOLs and between LEGO fans and new customers.	LEGO provide access to its customers through the virtual platform on LEGO factory, LDD software and the LEGO web site.
<b>TRANSPARENCY</b>	<b>RISK-RETURN</b>
For AFOLs, LEGO factory and makes transparent huge range of information about LEGO bricks model design, including design ideas, suggestion and solutions. LEGO Group learns a lot about individual LEGO fans that was previously opaque to them.	For customers, LEGO factory enhances the economic value of participation for customers by having their own design brick model. For LEGO Group, the risk of losing customers is lowered because customers are interacting with LEGO factory frequently.

## 2. Co-Creation of LEGO product- LEGO Mindstorms NXT Robot

Another project that involving many loyal LEGO fans is to develop a new generation of LEGO product- LEGO Mindstorms NXT Robot. It is also called Mindstorms Robotic Invention System (RIS) product. LEGO Group make use of varies



platform such as virtual secure website, teleconferences, face to face, online panels and forums together with Robotics building kit-software to co-create with their customers. The development program can be divided into 3 phases. Phase 1 from Sept 2004, 4 Adult Fans of LEGO were selected by LEGO Group, Ralph, Steven, John, and David to share the toy concept, playing with the prototype systems, offered useful suggestion including the creation for entirely new components. Phase 2 from Nov, 2005, the development extend to 14 Adult Fans of LEGO as user panel contribute their ideas on product improvements and new development, test a more finished “beta kit”, try out the hardware and software, identify problem, propose solutions for the bugs they found, and offer additional suggestions. Such as a new ultrasonic sensor was included to give the robot “eyes”, and a new 90-degree and technical element include make it easy and intuitive for users to build cubes. Phase 3 in Mar, 2006, LEGO Group introduces the Mindstorms Developer Program which is a development forum involving 100 fans. 9,610 robot enthusiasts aged from 18 to 75, from 79 different countries were selected to be the panel. The 100 fans are offered 4 month to experiment with the product, provide valuable suggestions and observations, transmitted their enthusiasm and influence the product development to the Mindstorms community before product released.

From the co-creation of LEGO Mindstorms Robot, the rules and norms of exchange between LEGO Group and their customers are more on a reciprocity rules

basis. Customers take the reciprocity as a folk belief that they expect their contribution would get what they deserve in the future. The obligations and rewards are unspecified between two parties. Quoted from the comment from one of the team commented, “They're going to talk to us about Legos, and they're going to pay us with Legos? They actually want our opinion?’ It doesn't get much better than that”. LEGO Group exchanging with customer’s ideas and information, and offer them LEGO sets, Mindstorms NXT prototypes and airfares to Denmark. Also, they show their wants, care and highly respect to their loyal customers by respecting their opinion, ideas and advices on product improvement, LEGO Group believe that their fans would not disclose the business secret to the public during product development stage also show the “trust” in between their relationship. It is classified as highly particularistic exchange on a long term basis. Such relationship is also a social exchange relationship that customers have unspecified obligations in the product development and also their return cannot be bargained and defined clearly.

### **Value Co-Creation**

In making use of the DART co-creation model, we can further analyze on how LEGO Group co-create extra value with customers by the LEGO Mindstorms NXT robot Developer Program to explore customer’s preference on new product and involve

them in the new product development process.

**Dialogue.** The LEGO Mindstorms NXT Robot Developer Program encourages continuous meaningful dialogues, between AFOLs and LEGO, among AFOLs and between AFOLs and customers. AFOLs and customers can engage in real-time interaction online and groups of AFOLs can also share their ideas after product is marketed on online forum to other customers. In between AFOLs, they can cheer on each other comments, make suggestion and solution when problem encounter in the development stage virtually and physically.

**Access.** LEGO provide its customers with access to each other and to internal parties of designers and employees. The access is provided by different platform such as online forum or face-to-face meeting and the LEGO Mindstorms Robot kit software and Mindstorms prototype.

**Risk-return relationship.** For customers, LEGO factory enhances the economic value of participation for customers by having total new design ideas and functions. Customers can contribute their innovativeness easily through different access. The interaction between LEGO designer and AFOLs are enhanced. From firm's perspective, LEGO's main risk is losing the relationship with customers if their products are not appeal enough. However, LEGO factory lowers the risk of losing customers because customers are interacting in the development program frequently, sharing their own

ideas on new product design, evaluation and testing that soliciting and receiving feedback from LEGO designers and employees regularly.

**Transparency.** For AFOLs, their involvements in new product development enhance their knowledge sharing and insights with other similar passionate AFOLs. LEGO Group learns a lot about individual LEGO fans that was previously opaque to them. The input from the customers provides LEGO with a goldmine of ideas for current product innovation and improvement.

By using the DART model, LEGO can co-create mutual value continuously. For example, customers and AFOLs involve the Minstorms Developer Program can access a host of new experiences, such as they can integrate their passion on LEGO and their innovativeness, they can share their innovative ideas with similar passionate fans, and they can take part in an active, new social network. The LEGO factory also enhances LEGO fans enjoyment of the LEGO Mindstorms NXT and increases their motivation.

For LEGO, the learning from these customer interactions creates new strategic capital. They learn directly from the customer's behavior, their skills and professional knowledge on the programming code. Also, LEGO build up a relationship and trust with the LEGO AFOLs community.

Table 4. 3 Summary of LEGO Group Value Co-creation with Customers

on LEGO Mindstorms NXT Developer Program

<b>DIALOGUE</b>	<b>ACCESS</b>
Rich dialogues between the customers, AFOLs and LEGO, among AFOLs and between LEGO fans and new customers.	LEGO provide access to its customers through the virtual and physical platform on meeting, online forum and web site.
<b>TRANSPARENCY</b>	<b>RISK-RETURN</b>
For AFOLs, involvement in LEGO Developer program enhance their knowledge and sharing ideas with other passionate AFOLs. LEGO Group learns a lot about individual LEGO fans that was previously opaque to them.	For customers, LEGO Developer Program enhances customer preference by having their own developed model. For LEGO Group, the risk of losing customers is lowered because customers are interacting with AFOLs frequently.

In conclusion, the social exchange relationship is a useful conceptual paradigm to explain the co-creation behavior between LEGO Group and customers. By understanding the social exchange relationship, it is expected that the relationship of LEGO Group and customer would continuous over time to benefit for mutually and rewarding transactions and relationships of two parties.

Table 4. 3 Summary of LEGO Group’s Co-creation by Social Exchange Theory

	<b>LEGO Factory</b>	<b>LEGO Mindstorms NXT Robot</b>
<b>Rules &amp; Norms of Exchange</b>	Negotiated Rules	Reciprocity Rules – Reciprocity as a folk belief
<b>Resources of Exchange</b>	LEGO goods, services, symbolic status & money in exchange of customer’s information and ideas	LEGO offer their products, Mindstorms NXT prototypes, airfares, show their wants, care and respect on AFOLs opinion, ideas and advices on product improvement to exchange customer’s ideas
<b>Social Exchange Relationship</b>	Trust evolved	Trust evolved

## Performance

LEGO’s Group management’s direction to move forward their focus on customers by varies co-creation activity brings new product introduction, awards and sales to the group. By the involvement of product design and development competition, 8 LEGO factory design were selected for mass production and sold in LEGO Group’s own brand stores and online sales. The success of LEGO factory design continuously push forward LEGO Group to held varies competition to draw attention of customer as the designers all around the world.

For LEGO Mindstorms NXT robot, a more advanced LEGO Mindstorms NXT robot was produced and 150,000 units sold in 2007. On product development, the contribution of LEGO fans towards the development of LEGO Mindstorms NXT Robot

achieved and created a more advanced robot compare with the one in 1998. For example, more advanced functions, ultrasonic sensor was included to give the robot “eyes”, and a new 90-degreee LEGO technic element to make it easy and intuitive for users to build cubes, also capable of seeing, hearing, speaking, feeling and moving, looking more “human”. The market feedbacks from customer were very positive and sold more than 150,000 units in 2007 and in estimation over one million units were sold at \$200 dollars a pop that accounts for at least \$200 million dollars in sales revenue. LEGO Mindstorms NXT also received several awards in 2006, including Popular Mechanics Breakthrough Award, International Toy Fair Committee’s Toy Innovation Award and parent’s choice award which prove its innovative ideas are successful and the way LEGO Group collaborates with customer in product development is in the right direction. LEGO Mindstorms NXT also became one of the most desired toys in 2006 behind Nintendo Wii. The success of LEGO Mindstorms NXT also brings a positive direction to LEGO Group for their future possibility of co-creation in other product line.

The LEGO Group achieved outperforming financial performance, it’s financial and market figures were improving and achieved outstanding performance year by year. In 2011 net profit achieved DKK 4,160 million. Further by the market share, LEGO Group obtained 7.1% market share in global toy market and ranking climb from the sixth to the third largest toy manufacturer in terms of sales globally.

Most importantly, co-creation activity in view of social exchange perspective built up a social exchange relationship between two parties co-creation behavior that would benefit both parties in long term basis with mutually benefits.

Table 4. 4 Summary of LEGO Group’s Revenue, Gross Profit, Expenses, and Net Profit

mDKK	2004	2005	2006	2007	2008	2009	2010	2011
Revenue	6,315	7,050	7,823	8,027	9,526	11,661	16,014	18,731
Expense	(6,252)	(6,582)	(6,475)	(6,556)	(7,522)	(8,659)	(10,899)	(13,065)
Operating Profit/ (Loss)	(1,162)	459	1,528	1,449	2,100	2,902	4,973	5,666
Net Profit/ (Loss)	(1,931)	505	1,430	1,028	1,352	2,204	3,718	4,160

Source: The LEGO Group Annual Report, This Study Reviewed

Table 4.5 Summary of LEGO Group’s Performance Description

Item	Measures	Descriptions
Consumer	Market Share	<ul style="list-style-type: none"> <li>● 2011 market share achieved 7.1% of the global market</li> <li>● Rank the third largest toy manufacturer in terms of sales globally</li> <li>● LEGO products are on sale in more than 130 countries</li> </ul>
	Customer Loyalty	<ul style="list-style-type: none"> <li>● More than 700,000 consumers throughout the world have downloaded LDD since its launched in 2005</li> </ul>
Financial	Revenue	<ul style="list-style-type: none"> <li>● 2011 revenue increased by 17% compare with 2010 amount to DKK \$18,731.</li> </ul>
	Profit	<ul style="list-style-type: none"> <li>● 2011 operating profit was DKK \$5,666 and</li> </ul>



		<p>operating profit margin was 30.2%</p> <ul style="list-style-type: none"> <li>● 2011 new profit margin was 22.2% in 2011.</li> </ul>
Internal Business Process	New Product/Service Introduction	<ul style="list-style-type: none"> <li>● 8 LEGO Factory designs were selected for mass production and sold in LEGO Group's own brand stores and through online sales. <ul style="list-style-type: none"> <li>• 5524 Airport - Location: Super Airport, Hotel,</li> <li>5525 Amusement Park - Location: Pirate Ship, Car Race, Ski Slope, Robo Destroyer ,</li> <li>5526 Skyline - Location: Hot Pursuit, Sears Tower, Liberty, LEGO Corp,</li> <li>10183 Hobby Train-group of 20 lead users created 76 new product designs which Lego were able to produce and sell,</li> <li>10190, Market Street - Minifigs: Townspeople (3x),10191 Star Justice - Minifigs: Astronaut, (4x), Space Robots (x3),</li> <li>10192 Space Skulls - Minifigs: Space Skulls (4x),</li> <li>10200 Custom Car Garage - Minifigures: Repairman (1x), Flagman (1x), Drivers (2x)</li> </ul> </li> <li>● Created a more advanced version of LEGO Mindstorms robot <ul style="list-style-type: none"> <li>• Sold more than 150,000 units in 2007</li> <li>• Received several awards in 2006, including Popular Mechanics Breakthrough Award”, the International Toy Fair Committee’s “Toy Innovation Award”, “parent’s choice award”</li> <li>• Became one of the most desired toys in 2006 behind the Nintendo Wii</li> <li>• Estimated over one million units sold at \$200 dollars a pop that accounts for at least \$200 million dollars in sales revenue</li> </ul> </li> <li>● LEGO Group was awarded the creativity prize CREO 2008 by the German non-profit creativity company</li> </ul>

Source: The LEGO Group Annual Report, This Study Reviewed

## **CHAPTER 5: CONCLUSION AND RECOMMENDATION**

### **5.1 Research Result**

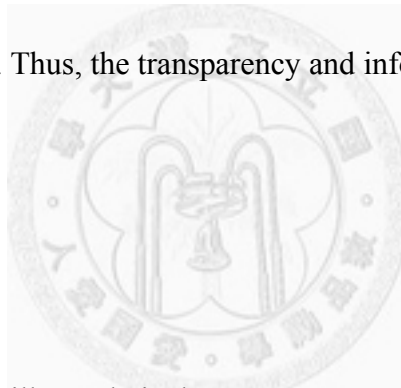
This study has examined the concept of co-creation, its definition, category and models. Co-creation in LEGO Group is one of the important actions that lead to their success. After the adoption of co-creation activity in LEGO Group, only better performance is achieved and it proves that co-creation can bring positive benefit to the group. A long term relationship is established between LEGO Group with its customers both would contribute to support LEGO's product, product development, ideas and future development.

In additions, by applying the social exchange theory, it explains firm's co-creation behavior is under a social exchange setting. While both parties would make use of varies of resources in exchange and adapt different rules and norms in exchange. And the most important is that the social exchange relationship would be over time and both parties would have a loyal, trusting and committing, mutually and rewarding transactions rather than just on one-off transaction basis. The loyalty and trust would definitely maintained in the social exchange setting which is predictably contribute to group's performance in the group.

## **5.2 Research Limitations**

The case methodology generates limitations in examining the concept of co-creation, since co-creation is a new concept and less research available. It is hardly we can draw a direct relationship of co-creation to its financial performance and market performance.

Further, internal information of activities carried out by LEGO Group is limited basically because although it is listed on stock exchange, however, the ownership is still under a family-owned basis. Thus, the transparency and information flow is limited.



## **5.3 Further Research**

Since co-creation is still a relatively new concept, it opens an opportunity to examine by empirical data on relationship between co-creation and organizational performance. This research only explains co-creation behavior under social exchange perspective. Further research could also analyze co-creation from different perspective.

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