The Maker-Platform Eco-system Model in Internet Environment: A Case Study of Haier

Yang YANG
School of Management, Harbin Institute of Technology, China
kobeyang827@163.com

Keywords: Internet Environment, Maker-Platform, Eco-system, Management Innovation.

Abstract. Enterprises can adapt themselves to a dynamic environment by conducting product innovation and management innovation. In this paper, however, we think that enterprises have to engage in management innovation, but not merely product innovation in Internet environment. In case study of Haier, we conclude that its management innovation process, which experiencing bureaucracy triangle structure, inverted triangle structure, eventually maker-platform eco-system mode, meeting the requirements of the Internet environment. As three key nodes of the maker-platform eco-system, open-source platform provide resources for the existence of eco-system, diversified small-micro businesses offer the ecosystem with vitality and Internet facility is essential to upgradation of the ecosystem. At last, we discuss the potential implications of this new model to transformation of large businesses and establishment of maker-platform, as well as some issues that may hinder the positive effects of this model.

Introduction

In order to gain sustainable competitive advantages, companies are encouraged to innovation, e.g. introducing date-of art technologies to matching strategy, internal resources and capabilities with external environment better. Despite of product innovation, management innovation is another way. It intends to change firms’ organizational structure. Unlike small businesses, the large ones have greater band reputation; however, they are firm-centric, ignoring customers’ need, also their employees lack enthusiasm for innovation. That makes management innovation a difficult task. So a majority of enterprises would prefer product innovation to management innovation when getting in troubles.

The internet environment is characterized by zero-distance information, decentralization and distributed resources. It urges firms to work with the following three issues: establishment of best customer experience process, improvement of employees’ innovativeness and building of open-soured platform. In fact, management innovation can solve these problems. Previous exploration, e.g. connect and develop in P&G, intends to exploit makers by building external platforms. With these platforms, businesses can really get close interaction with customers, however, the openness of maker-platforms is not high enough, the employees of the firms are still passive executors and the experience of customer is limited. Obviously, the building of external platform alone is not satisfactory in internet environment for large enterprises. In this paper, we focus on the evolution process of maker-platform ecosystem in Haier. We demonstrate that Haier’s constant management innovation is a further exploration of firms’ transformation in internet environment.

Internet Environment and Enterprises’ Innovation

In internet environment, a better mechanism to drive product innovation is needed. First, zero-distance information allows customers to express their needs freely. But firms should learn to satisfy personalized customer demand and allow users to participate in whole product innovation process. Apparently the Taylorism pipeline operations can’t meet the requirements. So, management innovation which aims to build best user experience process is of great importance. Second, unlike the firm-centric bureaucracy triangle structure, in a decentralized atmosphere both the firm and the employees, users can become self-created. Management innovation, changing existing
organizational structure, is essential to achieve this goal. At last, scattering distributed resources among parties making resources allocation within bigger scopes possible. The large enterprises are encouraged to transform from close to open. Internal functioning balance that held by Fayol can merely improve the efficiency of internal resources usage. In order to be open, firms need to carry out management innovation which can integrate internal resources and dock external ones as well. Some firms intend to exploit makers by building external platforms. With these platforms, businesses can really get close interaction with customers and other external parties, e.g. connect and develop in P&G and “Meichuang” platform by Midea. However, the maker-platforms are partial open not all-round, the employees of the firms are still passive executors, rather than active innovators and the experience of customer is limited, not in the whole innovation process. Obviously, the building of external platform alone is not satisfactory in internet environment for large enterprises. Bases on the facts mentioned above, the case of Haier’s maker-platform ecosystem is a good example of management innovation which intends to help Haier transform in internet environment.

The Evolution of Haier’s Maker-platform Ecosystem

The evolution process contains two stages; one presents change from triangle to inverse-triangle structure, the other depicts transformation from inverse-triangle to maker-platform ecosystem. Prior researches mainly focus on the first stage, but in this paper we pay more attention to the second stage. We argue that after these two stages, Haier has created best customer experience processes, improved employees’ creativities and built open-sourced platform.

Inverse-triangle Structure. In a triangle structure organization, information flow from top managers to employees. The firm-centric products can’t meet the users’ demands and the passive employees are completely executors rather than creators. Then from 1998 to 2005, Haier built internal market-chain, strategic business unit and integrated orders with personnel successively, ending up with inverse-triangle structure.

The building process of internal maker-chain is a customer-oriented business process re-engineering. It contains transformation from functional structure to process-based network structure and from vertical business structure to horizontal one [1]. First, integrating the units, which belongs to individual business unit and the implementation of marketing, purchasing and billing are unified by the Haier business-group [2]. Second, integration of departments in individual business unit, results in horizontal processes directly faces the customers’ needs. At last, design pay, claims, tripping mechanics to link the horizontal processes [3]. Then Haier puts forward the concept of strategic business units (SBU). SBUs are functional groups which can operate independently and manage discretely [4] and they can be part of the whole business or just key staff positions [5]. Haier said that everyone can become a SBU. It means everyone can create value for customers through self-organizing innovation behaviors. Since 1997, Haier staff has held about 3300 inventions and created more than 960 million RMB economic values [6]. After that, Haier aims to integrate order with personnel in 2005, personnel means SBU and order presents users’ demands. It means that from the perspective of customers’ needs, firms intend to combine processes with SBUS. In this condition, employees are not only spontaneous innovative SBUs, but also key nodes in horizontal processes (Wang, Xi and Zhou, 2006).

With internal market chain, firms’ structure transforms from firm-centric to customer-centric and builds parallel and flat processes among different departments. SBUs boost employees’ independence. What’s more, integrating order with personnel aims to overcome the potential mismatch between SBUs and customers’ needs. In this structure, SBUs is on the top and directly facing customers’ needs, in the middle are the support and core processes, which evolving from the original departments and business units.

Haier’s Maker-platform Eco-system. The evolution from triangle to inverse triangle structure mainly focus on integration of internal resources. It has potential to improve in terms of creating best customers’ experiences, jointing external social resources and improving employees’ creative initiatives. Haier carry out the management innovation which characterized by platforms from
enterprises, makers evolved from employees, personalized demands from customers in 2014, in this paper, we call it maker-platform eco-system and argue that this model are evolved from inverse-triangle structure. We summarize and further divide the differences into three items. First, from internal resources providing processes to open-sourced resource platforms, second, from SBUs to small enterprises; third, from individual resource platforms to Internet Factory.

**Open-source Platforms.** Open-source platforms are evolved from resource providing departments in the middle of inverse triangle structure. Unlike the previous departments, new open-source platforms not only integrate internal resources but also joint external social resources. The relationship between parties that converged on the platforms turns from cope with each other to win-win relationship. These parties cooperate to meet customer needs. Making uses of Haier’s manufacture capabilities and brand reputation, the open-source platforms provide small enterprises with preferential policies and sufficient resources from up and down stream. We think that the establishment of open-source platforms expands the scope of resource allocations, making Haier an open and innovative incubation platform.

**Small Enterprises.** On the basis of integration between order and personnel, the SBUs are further integrate with similar or the same customers’ needs, ending up with a plenty of independent and small enterprises. They are made up by owner of small enterprises and makers, who are original employees in Haier. By doing this, employees in Haier have further transform from SBUs to makers in small enterprises and guided by maker culture or self-creation culture. Haier are transformed from the managers of original whole enterprises to stockholders of a majority of small enterprises. As an autonomic organization, every enterprise can allocate their revenues freely. In addition to internal staff, Haier also encourage external makers to join and create small enterprises on the open-source platforms. These enterprises can be entrepreneurial, re-structuring or ecological.

**Internet Factory.** After the building of diversified open-source platforms, we can’t ignore the differences between them. Some useful measures should take to strengthen the connection of the platforms. Haier’s answer is to build internet factory, with which users can express personalize needs through any process from idea creation to product delivery, as well as participate in product innovation and iteration. In the internet factory customers’ needs are surrounded by mainly three inter-connected platforms: user interaction customization platform, open innovation platform, and intelligent manufacturing platform. Take Haier’s U+ Wisdom of life experience platform as example, this big platform contains user interaction customization platform, Masses creations, open innovation platform, Hope and module suppliers’ platform, Hai Da Yuan and Intelligent manufacturing platform [7].

**Analysis of the Maker-platform Eco-system.** From the description above, we can conclude open-source platform, small enterprises and internet factory are three key nodes of maker-platform ecosystem. Relying on Haier’s brand influence to bring together considerable amount of social resources, the open-source platform is the basis of existence of the eco-system. They offer small enterprises with sufficient resources. Diversified small enterprises which consist of original or external employees provide the eco-system with vitality. They present the innovativeness of the makers. Internet factory which ensure users’ complete participation and feedback is the guarantee of eco-system’s updating.

What’s more, we think Haier’s maker-platform ecosystem is a suitable management innovation, which meeting the requirements of transformation in internet environments. It is a further development of inverse-triangle structure. The developments are reflected in three aspects: First, departments in inverse triangle structure docking external social resources make Haier an open innovative incubation platform. Compared with inverse-triangle structure, this platform becomes truly all-round open. Second, makers in small enterprises demonstrate that employees, who have ever been passive in triangle structure, can be totally active self-creation entities in Maker-platform eco-system model, further improve employees’ creative initiatives. Third, inter-connection of the platforms can help enterprises build the best user experience processes and better meet customers’ personalized demands.
Further Discussions about Haier’s Maker-platform Eco-system

Transformation of large enterprises, like Haier, is to build a structure that can hold the brand advantages and be flexible and aggressive like peer small enterprises. Haier’s maker-platform eco-system is a management innovation with high-degree of self-subversion. From this case, we can learn that product innovation itself is not enough to ensure transformation in internet environment. The large firm should engage in bold management innovation. What’s more, we argue that management Innovation is gradual, not overnight. Haier’s management has been lasted for about 20 years since 1998, which contain triangle structure, inverse-triangle structure, eventually maker-platform eco-system, a gradual development process.

In addition, Haier’s maker-platform eco-system provides a suitable reference. It highlights the importance of a powerful center, like Haier’s band reputation and complete manufacturing chain. Under the premise of attractive energy center, the maker can work out new ideas and push them into market. If the platform can’t attract external resource, the internal resource that maker can use is limited. They can merely get many inventions, rather than innovative products. In addition, we care about the possibility of building of specialized maker-platform, namely fewer but centralized. Among the large number of small enterprises, Haier’s maker-platform is still characterized by home appliances. Making better use featured resource; platform can attract makers who have similar interests quickly. The frequent interactions among makers will boost the efficiency of makers’ innovation process.

At last, we list some issues that maker-platform ecosystem should cope with. First, pay attention to potential contradictions between partial innovation of small enterprises and overall strategic plans in Haier. It refers to how Haier use strategic actions to manage the small enterprises. Second, try to discriminate different types of small enterprises, entrepreneurial small enterprises, ecological and re-structuring enterprises. They have different roles in development of the whole eco-system. The last point, Haier should value incentives and competition issues in small enterprises. Specifically, in the early stage, the domain issues are competition, rather than incentives. In this stage the open-source platform is strong enough to support enterprise’s growth, but the situation opposite in the later stage. Haier needs to establish mechanisms to deal with competition among small enterprises in different stages.

References