

Service innovation in China: Development and implementation of a logistics platform solution

Abstract: Purpose – The aim of this paper is to advance our understanding of service innovation in China and to identify the major drivers and impediments for manufacturing companies pushing into services in China.

Design/methodology/approach – By employing an in-depth longitudinal case of a Chinese company, the paper investigates how a traditional manufacturing company developed and implemented a ‘road-port’ logistics concept in the local context. We draw on the resource-based and institution-based view as well as theories of innovation.

Findings – The ‘road-port’ platform concept has a potential to transform the industry by increasing transparency and connectedness between track owners and third-party logistics (3PL) companies. We find that the service concept helped the company to diversify as well as enhanced its growth and competitive advantages in a very competitive environment of the second and third tier Chinese cities. Both internal and external factors played a significant role in influencing the development and implementation of service innovation in the case. The paper details and discusses the factors that affect service innovation in China.

Research Limitations – The study is exposed to the limitations associated with the use of qualitative methodology based on a single case and geographic delimitation. Rather than providing definite answers, the findings of this study should be seen as propositions which open avenues for future testing and research on the subject.

Implications – The findings may be useful in informing our expectations about the push of many Chinese manufacturing companies into services. The paper provides insights into the development and diffusion of service innovation in many fast transforming industrial companies in China. Lessons for other developing countries can also be drawn from the study.

Originality/value – The paper addresses the topic of service innovation in China, which has so far received a limited attention in the management literature. By presenting an in-depth case study, the paper highlights main factors and dilemmas underpinning how Chinese companies are seeking to create a foundation for growth and development based on innovation.

Key words: Service innovation, logistics services, China, case study

1 INTRODUCTION

In the past two decades, China has earned the reputation of a manufacturing powerhouse of the world. Chinese companies in their vast numbers have been very successful in exploiting their access to low-cost labour and have established themselves as unbeatable high volume low-cost manufacturing champions (Platts&Song, 2010; Carr&Harris, 2015; Murphy&Li, 2015). However, recently growing number of Chinese manufacturing companies are seeking to recalibrate their focus from routine transactional tasks to more knowledge-intensive and innovative ones and by doing so to create a foundation for growth and development based on innovation (Huang, 2014; Fu, 2015; Devang et al., 2017).

This trend seems to be congruent with the recommendations of numerous studies analysing how China can maintain its rapid growth, while realizing the potential to become a modern and creative high-income society (e.g. Sheng and Wong, 2011; World Bank, 2013). World Bank (2013) analysis emphasizes competitive pressures for Chinese companies to engage in product and process innovation. An ample array of successful Chinese innovative firms demonstrates that China is already far ahead of most other developing countries and its firms are rapidly building the credible foundations for innovation (e.g. Steinfeld&Beltoft, 2014; Williamson&Yin, 2014; Fu, 2015). However, many challenges remain, as transitioning towards innovation does not always come easy (Abrami et

al., 2014). Many Chinese manufacturing companies are rapidly approaching their technology frontiers and are in need of new sources of competitive advantage.

Large potential for this may be found in China’s relatively underdeveloped services sector. Compared with China’s manufacturing sector, the development of services has been lagging behind for the past several decades of the economic growth. However, according to the World Bank (2013) the situation is likely to change with the Chinese economy transforming itself towards becoming more complex, knowledge driven and services oriented. On the one hand, such a trend creates new opportunities for manufacturing companies willing and prepared to step into largely unknown for them territory of services. On the other hand, it is also associated with significant challenges. At the company level, the implications may be very widespread and involve value proposition and value delivery changes. However, implications may also be felt at the industry level where a new service offering may disrupt or even redefine the entire industry (Reddy, 2011).

Therefore it is important to advance our understanding of these implications and to unravel what drives the service innovation and what are the impediments of this process. According to Dodgson & Xue (2009), the development and implementation of service innovation in Chinese companies is an imperative which has not been adequately addressed in the literature which predominantly focused on innovation in manufacturing rather than services. This paper seeks to contribute to bridging this gap and answer:

what does service innovation entail at the company level and what are major drivers and impediments of service innovation development and implementation in Chinese companies?

The paper does it by investigating a case of a Chinese industrial company, which for the past ten years has been actively working on developing and implementing a logistics platform solution. The paper has four parts. The following section introduces the theoretical background of the study. We then proceed with describing the methodological approach and the case study. The third section presents the discussion and analysis of the case. The paper closes with conclusions and suggestions for how to unravel the tentative results further.

2 THEORETICAL BACKGROUND

2.1 Service innovation

The interest in services is growing all over the world. The contribution of the service sector to the GDP is on the rise both in western and emerging economies. Moreover, services are characterized by a very high level of dynamism and potential for innovations at the company level (Berry et al., 2006; Kimbell, 2017; Stickdorn&Schneider, 2017). Therefore, it is not surprising that academic interest in services, service growth strategies and service operations management has grown (Johnston, 1999; Kowalkowski et al., 2017). Studies on innovations in the service sector have also gradually evolved gaining the level of maturity and sophistication. However, compared to similar investigations in the manufacturing sector, research identifying innovation types, investigating management practices and discussing innovation performance in services has been lagging behind similar investigations in the manufacturing sector (Oke, 2007).

According to Gallouj and Weinstein (1997) the analysis of innovation in services is a challenging task for two reasons. First, innovation theory origins are to be sought in the manufacturing sector and technological innovation. Second, the properties of services make the use of the traditional output criteria (e.g. productivity) difficult. The existing scholarship on innovation in services reflects these challenges. Some studies focus on the introduction of new technology in services; this in many instances leads to process innovation and the view is adopted that does not see services in isolation from the technological advancements. Conversely, the other stream adopts the view that innovation in services can exist without technological innovation.

Some studies focused on differences between new product development and new service development. The characteristics of services, such as intangibility, perishability, heterogeneity and simultaneity, point to differences between services and tangible product (Segal-Horn, 2003). In spite of these differences, Oke (2007) finds that the terms ‘service product innovation’ and ‘product innovation’ have often been used interchangeably in the literature to describe changes in the core offerings of companies to create new revenue streams. In the case of services, however, these changes tend to involve co-creation and much closer than in the manufacturing

environment interaction with customers who are an integral part of the service delivery process (Wu, 2016; Stickdorn&Schneider, 2017). To accommodate for this, Ramdas et al. (2012) emphasize four dimensions that need to be considered in service innovation: 1) the structure of the interaction with the customer, 2) the service boundary, 3) the allocation of service tasks and 4) the delivery location. Furthermore, service innovations may be related to variations in core service product and/or add-on service processes enhancing the service experience for the customer (Oke, 2007). Following the established stream of literature on manufactured product innovation, service innovation literature also distinguishes between service innovation projects with different degrees of innovativeness ranging from incremental to radical (Cooper et al. 1999) and point to their positive relationship with firm performance.

Traditional industrial firms are also increasingly looking into the potential of services. Drawing on a broad array of examples, Pawar et al. (2009) find that actual manufacturing operations now account for a smaller share of profits in many traditional manufacturing firms. The provision of services is increasingly taking over fabrication processes. In discussing the origins and rationale for this, the literature commonly puts forward three sets of drivers: financial/economic (services provide new stable source of revenues), competitive advantage (services are more difficult to imitate, thus providing a strategic source of competitive advantage), and marketing/demand (customers are demanding more services) (e.g. Baines et al., 2009; Gebauer & Friedli, 2005; Oliva & Kallenberg, 2003; Schmenner, 2009; Kowalkowski et al., 2017).

For a long time services have been considered to be an area where western companies have an inherent advantage. However, the situation is changing fast with many companies from emerging markets pushing into services. One of the targeted contributions of this paper is an investigation of service innovation in an industrial company in China.

2.2 Service Innovation in China

The role of innovation in creating a foundation for growth and development is difficult to dispute. As a result of that, growing numbers of Chinese companies seek repositioning from low-cost high volume manufacturing to more knowledge-intensive and innovation-based activities, including services. Many Chinese companies aspire to potentially challenge Western hegemony in this domain. This aspiration is supported by China’s policy making mechanisms that promote the upgrading of the country’s economic structure through focus on indigenous innovation and, as Haour and Jolly (2014) put it, making China the next innovation hot spot for the world. There are many connotations prescribed to the concept of indigenous innovation by academia and practitioners. In this paper, we adopt the definition used by the Chinese government, which defines indigenous innovation in terms of innovation developed at home, i.e. ‘Chinese technology for Chinese problems’.

According to Johnson and Chuang (2010), indigenous innovation takes place within the national system of a

particular country and comes from within the system rather than is transferred from elsewhere. Although acquisition of technology from abroad is an important source of innovation (Pech et al., 2005), the development of superior technologies and innovative concepts at home plays a much more important role for competitiveness of the economy and its firms (e.g. Lazonick, 2004; Dodgson & Xue, 2009).

Numerous studies show that the task of enacting homegrown innovation is not easy. Many Chinese companies face shortages of innovation management skills and experience difficulties with financing breakthrough innovations which do not guarantee immediate returns (Dodgson & Xue, 2009). Several studies (e.g. Zhang, 2011; Zhu et al., 2012) outline and discuss other institutional challenges to successful innovation that Chinese companies face both domestically and internationally, including competition fairness, access to financing, regulatory and tax burdens, lacking support systems. Although a significant progress have been made, China and its companies still face serious obstacles in achieving growth based on innovation. Johnson and Chuang (2010) argue that while the numbers for China's growth in education and areas of science and technology are staggering, there is some evidence that the quality of the output needs further improvement.

According to Dodgson & Xue (2009), one of the major challenges for innovation in China lies in the difficulty of transitioning from the business model based on imitation to one that is underpinned by true innovation driven by own design and development. Tzeng et al. (2011) analyzed the roles played by the state, the social environment and the market in overcoming this difficulty and developing indigenous innovation and entrepreneurship. Their findings suggest that the three institutions play different roles in nourishing indigenous firms at the various stages of development. At the start-up stage, the state creates appropriate contexts that stimulate entrepreneurial motivation. At the growth stage, the social environment plays a more important role. At the mature stage, the market role is emphasized in enhancing or destroying the innovative capabilities of domestic firms.

In their analysis of barriers to innovation in China, Zhu et al. (2012) propose a cost-risk-opportunity innovation triangle model. The three dimensions of the model (opportunity of innovation, cost of innovation and risk of innovation) categorize innovation barriers faced by companies embedded in the Chinese context (Figure 1).



Fig 1. The space of innovation

In terms of the effects of the three dimensions, when opportunity of innovation increases, it positively affects the

space of innovation; while the increase in cost and risk of innovation has adverse effect for the innovation space. We will return to the dimensions of this model in the analysis of the drivers and impediments of service innovation in the case.

Some literature also focuses on the underlying firm level mechanisms through which innovation can be achieved. For example, Li et al. (2010) examine how behaviour control and output control can influence acquisitive learning and experimental learning in order to produce positive impacts on innovation.

Lin (2007) found that such internal factors as organizational encouragement and quality of human resources have significant positive effect on innovation in Chinese logistics service companies. However, the studies at the company level are rare compared to those which examine where China stands in terms of country-level indicators of innovation based on the analyses of educational, science and technology, and economic systems (e.g. Sheng and Wong, 2011; Wang & Hong, 2012; Wang 2014). Therefore, this paper attempts to cover not only external factors, but also look at internal factors, resources and features of organizations which influence the development and implementation of service innovation initiatives at the company level. We pursue this objective by conducting a longitudinal case study of a Chinese industrial firm expanding into the logistics sector.

2.3 Logistics services in China

There is a great untapped potential in the services sector in China. As it was mentioned above, general literature on innovation is biased towards innovation in manufacturing, and so is the literature on innovation in China. With very few exceptions (e.g. Lin, 2007; Chen et al., 2011; Liu, 2013) it has been predominantly focused on manufacturing rather than services and often ignored unique characteristics of services which have to be taken into account when studying service innovation. In this paper we chose to narrow our focus on one logistics services, one of the strategic service sectors of the Chinese economy.

Since China has become the world's largest manufacturing base, the demand for logistics services in the country has been growing fast and the logistics sector has become one of the key sectors of the economy. Efficiently organized logistics function holds the key to potential optimization in the supply chain, which is an important item on the agenda of many Chinese companies looking for new sources of competitive advantage (Liu et al., 2014).

As far as the road transportation is concerned, it plays a crucial role in the Chinese logistics sector and covers approximately 70% of the total transportation in China. The gross road freight companies' turnover reached nearly RMB 2 trillion in 2012 and has been experience exponential growth ever since. However, according to Lin (2007), the efficiency of the road transportation in China can still be improved. More service innovation is needed in the road transportation in order to achieve this and reduce the transportation cost in China. Among significant barriers for further development of the sector in China, Lin (2007) highlights the lack of cargo tracing services, the lack of

delivery reliability for local carriers, the lack of carrier selection, complicated customs procedures, and fragmentation of transportation networks.

Although there are significant barriers and the logistics sector in China still lacks efficiency and lags significantly behind the major industrial nations, the World Bank's Logistics Performance Index shows that China, rank 26, leads among the developing countries (World Bank, 2013). In 2011, the Chinese State Council issued new directives aimed at the sustainable development of the country's logistics sector. Therefore, there has been a big market opportunity in the logistics sector and potential to become a very fertile ground for new breakthrough innovations redefining the sector for years to come.

The so-called logistics sector consists of a very broad array of actors ensuring the flow of raw materials, semi-finished and finished goods, as well as related information between the points of production and consumption. In addition to more traditional transportation and warehousing services, logistics providers are increasingly looking at innovating other higher-value added services, such as data and materials management services (Berglund et al., 1999).

Lin (2007) classifies innovation in logistics technologies into four groups: data acquisition technologies, information technologies, warehousing technologies, and transportation technologies. All four areas offer a great potential for innovation in China's logistics sector. Most operations in China's service sectors are labour-intensive and rely on the input of a large number of service workers. One potential area for increasing efficiency lies in the transformation from labour-intensiveness to knowledge-intensiveness. Lin (2007) argues that China's logistics service providers have to adopt technological innovation to improve their process efficiency and provide better services. Some analysts suggest that the sector should subscribe to the latest e-commerce trends and invest extensively in information and communication technologies which could drive and re-shape the market demand of logistics services and push the development of the sector. Others point to the potential of outsourcing logistics services to the third party logistics providers as a way to increase the overall efficiency of the sector. In the remaining part of the paper we turn to our empirical efforts, where we present and discuss a case of a Chinese industrial company which for the past ten years has been looking for 'win-win' solutions for the most pending problems of this strategically important sector in China.

3 METHODOLOGY AND CASE STUDY

3.1 Methodological approach

Our approach to answering the research question of this study is based on the principles of engagement with practice through case studies (Voss, 2009; Yin, 2009). The case study strategy of inquiry was chosen for the study for several reasons. First, case studies enlighten and explain real-life phenomena that are too complex for tightly structured designs or pre-specified data sets (Voss, 2009; Yin, 2009). Second, the case study strategy is suitable for unravelling concepts which have not been deeply

investigated so far (Eisenhardt 1989; Yin, 2009). Third, the choice of the case study strategy is based on the fit between case research and operations strategy (Voss, 2009), which is acknowledged but underexplored in the literature.

Therefore, the empirical foundation for this paper consists of a case study of a Chinese company behind an innovative logistics concept developed in-house at its home base. The company development has been followed by two of the authors independently in the period of 2012-2018. The case description presented below is based on three site visits in China, semi-structured interviews and informal meetings with company representatives, including the head and deputy head of the logistics division, members of the strategic management team for the logistics division. In addition, secondary data and company materials were used. These included: annual reports, press releases, presentation material to customers and stakeholders, media material, and other secondary literature sources. Furthermore, follow up e-mail correspondence and data validation by the company were conducted in order to increase validity and reliability of the study.

The key criteria for the selection of the case were: 1) country of origin - China; 2) development and early stages of implementation of a strategically important solution innovation in the logistics industry. Through these screening criteria and on the basis of considerations about the access to potential data (including commitment of interviewees, availability of documents, etc.) the case study presented below was selected for this investigation.

3.2 Case Company Alpha

Alpha's Profile and History

The original name of Alpha Group translated into English can metaphorically be understood as 'Going far'. The company started as a family business in 1986 with just 2,000 RMB. The core product, the company began with, was the washing liquid produced using very basic mixing and compounding techniques. In the late 1980s, the market in China was not saturated and competition in the sector was relatively small. Since then, Alpha Group underwent tremendous growth and today it is a renowned cross-sector, non-state-owned, high-tech enterprise group in China. It is involved in manufacture (chemicals), logistics, agriculture and financial services.

The revenue of Alpha Group in 2012 reached 24.9 billion RMB and almost doubled since then. The Alpha Group currently has 12,000 employees and is on the list of "China's Top 500 Enterprises", "China's Top 500 Private Enterprises" and "Chinese Top 500 Most Valuable Brands".

Alpha Group is still very focused on the chemical sector where it began. Before 2000, Alpha Chemicals was the only sector the company was operating in. In 2014, the chemical arm still remained a profit center of the company, but the three other SBUs were gaining fast. Alpha Chemicals is listed on the Shenzhen and Shanghai stock exchanges. Alpha Agriculture is one of the largest Chinese providers of commercial seedlings and top-grade flowers. With the development mode of "company + nursery ground + farmer", in 2010, the agriculture park operated by

the Alpha Agriculture had become a national agriculture science park.

In the logistics area, Alpha separated the transportation department providing the logistics service for the own products of Alpha to be a sub transportation company, called the Alpha Logistics in 1997. Since 1998, the Alpha Logistics had provided the third party logistics (3PL) service. A big turnaround in the logistics unit of the company came in 2002, when the company decided to establish a ‘‘Road-port’’ logistics’ system, which according to the company and some of its 3PL partners became one of the most valuable innovation in China’s logistics sector and contributed to improving the low efficiency of road logistics. Currently, the Alpha Logistics is gradually building up its national logistics service platform and grows rapidly.

‘Road-port’ Solution for China

‘Road-port’ as any other port, i.e. seaport or airport, is a platform on which Alpha Logistics brought together different actors: goods owners, 3PLs, individual vehicles owners, government agencies dealing with the tax and custom procedures, accommodation services providers, vehicle service companies, etc.

Besides being an interesting concept in general, the road-port solution was special for several reasons. First of all, the idea was developed at home to target a very specific problem of the industry – fragmentation and lack of transparency. Secondly, the platform epitomized the ‘win-win’ principle, the founder of the Alpha Group strongly believed in. The platform created a space for efficient and effective delivery of various services (e.g. truck servicing, invoicing, IT support, goods information) and resources to the users of the platform, allowing them to get better at what they did. The success of all user groups and society as a whole also meant success for Alpha Logistics resulting in the realization of the win-win principle. Thirdly, the solution drew on the digitalisation trends and successfully integrated on-line and off-line services of the platform.

Although there are many different activities, the platform was mainly designed for connecting track owners and 3PLs. It was a big breakthrough in the industry, because as a rule drivers had limited information about where the consignment might be. 3PLs on the other hand, might have had enough consignments, but not enough vehicles or drivers who could provide price competitive services. Therefore, Alpha Logistics provided a very valuable service to the market – service of visibility, transparency, connection, and trustworthy environment. A smart phone application available for the users of the platform helped to coordinate and access information about supply and demand. The application was also designed for O2O, i.e. integration of on-line and off-line services of the platform, and better monitoring of the goods flow. As one of the interviewed goods owners stated: ‘We face a challenge of tracking where our goods are and who takes care of them. The platform solution is a helpful way to overcome this’. Moreover, the platform also performed some functions on behalf of local authorities (including administration of official freight and tax forms). On average, ‘smart’, i.e. information and data backed, way of connecting 3PLs,

truck and goods owners helped to reduce the transaction waiting time for consignment from 48 hours to 6 hours, reduce the number less than full load and free load freights.

In order to attract more truck owners and logistics service companies to join the ‘Road-port’, besides the transportation information, Alpha Logistics was constantly working on developing new services for the platform users, such as establishing Road-Port Expresses, accommodation solutions for drivers, truck fuelling services. After 10 years development, the ‘Road-port’ of Alpha Logistics could boast an impressive record of accomplishment. It attracted thousands 3PLs, especially small-and-medium size enterprises (SMEs), million plus truck owners to share the logistics information with several hundred thousands good owner companies.

The origins of the concept can be traced back to Alpha’s truck team for its chemical business. In the period of 1997-2000, the fleet of approximately 300 company trucks was established. However, the company was growing fast and this size soon was limiting for further development of the company. In the late 1990s, some managers from the logistics team started questioning the principles of very harsh competition instead of collaboration. From here emerged an idea of concentrating on some other business models where the company could be successful and profitable by establishing collaborative platforms benefiting Alpha and society as whole. The idea was very much supported and driven by the founder of the company.

The resource accumulation was quite rapidly completed and three first individual platforms rolled out. In general, one platform requires approximately 500 million RMB investments. The amount is quite large for a privately owned company. In spite of this, within three years after the first platform in Hangzhou, Alpha Logistics has successfully completed another two platforms in Suzhou and Chengdu. Since then the company has implemented projects in more than 80 cities across the country, and deployed regional network layout in Zhejiang, Sichuan, Shandong, Jiangsu, Fujian, Chongqing, Tianjin, Heilongjiang, Jilin, Liaoning, Anhui, Henan, Hunan, Hebei, Guizhou, Yunnan, Inner Mongolia and 20 other provinces and cities. By 2022, the entire network layout is expected to be developed with 10 hubs and 160 bases.

However, the initiative did not only focused on the physical infrastructure development. The company from the start emphasized the opportunities of digitalisation and gradually committed itself to developing a ‘‘software’’ for China’s traffic network and establishing ‘‘China’s Intelligent Road Logistics Operating System’’ based on big data constantly generated by its logistics center network that covers the whole country.

Implications of the solution

The Road-port solution brought good social and economic profits to Alpha Logistics. For example, in the period of 2009-2013, the platform in Chengdu attracted more than 2,000 3PLs covering 95% of all logistics demand in Chengdu and 85% of all south-west demand. More than 500,000 truck owners (80% of total trucks capacity in Chengdu) and 50,000 goods owners registered for the use

of the platform services. Total revenue of transactions of this one platform for four years of operation reached 16,23 bn RMB and 0,65 bn tax paid to the local government. The successful development continued in 2014 with the generated revenue of transactions reaching 1,55 bn RMB for the first half of the year and 51 ml RMB tax payment. Furthermore, logistics outsourcing rate in Chengdu and neighbouring areas increased from 12,3 to 40%. It was estimated that logistics cost of all the parties involved were reduced by 25% equivalent to 1,5 bn RMB, pointing to the direct macro-economic impact and increased cost competitiveness of Chinese firms using the platform. According the Alpha's analysts, the platform in Chengdu also helped to create approximately 10,000 new jobs, register 700 new start-ups in the logistics industry and became a tool for the local government to attract FDIs.

The impact of the concept for the Alpha Group internal operations was also significant. Although, this service innovation was developed and implemented by a separate business unit of Alpha it had implications for the other business units of this industrial group. First, a new revenue stream was created turning Alpha's logistics unit from the cost to profit center. Second, the transformation of the logistics function had implications for the manufacturing arm of the company. By having an internal fleet of owned trucks, the company often faced bottlenecks related to limited capacity of their logistics function. After implementing the platform solution in Hangzhou, the company got access to more than 100.000 trucks on a continuous basis, which improved its delivery flexibility and dependability.

After 15 years of successful development of the concept, Alpha created a track record, which the company hoped to use for further expansion and creation of a national network of 'road-ports'. Among the factors that could affect the future development of this initiative, the company emphasized the role of government in helping to create rules and standards accounting for the benefits the 'road-port' solution could bring to the industry. The planned expansion of the network is capital intensive, therefore IPO options were considered to tackle the challenge of finding the necessary funding. Internally in the company, the 'road-port' logistics concept continued to have a great support backed by the hiring of 50 new employees for its logistics unit in 2014 alone. Development and integration of the young talents the company saw as one of the most immediate tasks for achieving its ambitious expansion goals and broadening its platform service portfolio to the new areas such as packaging and green logistics solutions.

4 DISCUSSION AND ANALYSIS

The case presented above demonstrates that numerous perspectives matter for advancing our understanding of service innovation in the specific context of the road logistics industry in China. However, a more important question is how they matter. In this respect the study may offer some insights into how to improve the environment and eliminate the barriers for service innovation in Chinese industrial companies.

The business environment in China has come a long way to become stimulating for private companies innovation. In general, the nature of innovation is associated with risk and unpredictability. The case shows that for industrial companies pushing into services, service innovation is even more challenging and therefore requires more nurturing and support. However, if successful breakthrough is achieved, the impact crosses the boundaries of one sector of the economy and is felt not only on the industry or company level, but also on the national level. Figure 2 illustrates the impact of the developed and implemented logistics concept observed in the Alpha logistics case.

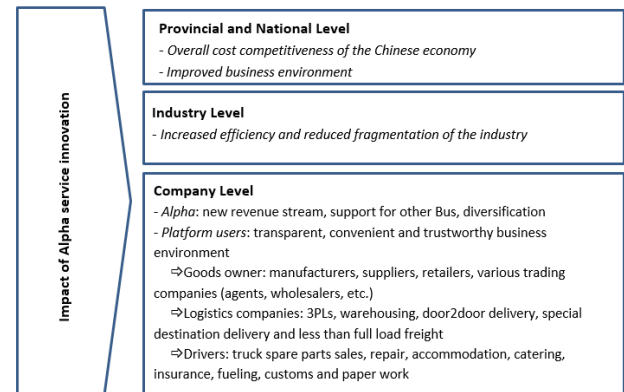


Fig. 2. The impact of service innovation in Alpha Logistics

The study showed that the logistics business in China differs substantially from the same kind of business in other countries. According to Alpha, this sector in China is still years behind Europe and North America. The best evidence of this can be seen on the streets of Chinese towns. The condition of commercial fleet can be improved. This example is representative of the state of the logistic business standards for facilities and equipment. The field work we conducted as part of the case investigation confirmed the existence of challenges highlighted by Lin (2007), i.e. lack of transparency, lack of reliability, lack of convenient solutions for carriers' selection, and fragmentation of the industry as whole.

Part of the successful development of the service innovation in Alpha was that as a manufacturing company, it was very much familiar with these problems and was very well positioned to come up with an appropriate solution for them. Referring to the drivers that motivate industrial companies to differentiate into services (e.g. Baines et al., 2009; Oliva & Kallenberg, 2003; Schmenner, 2009; Kowalkowski et al., 2017), it seems that the demand driver played significant role in the case. However, according to the company the financial (services provide new stable source of revenues) and competitive advantage (services are more difficult to imitate, thus providing a strategic source of competitive advantage) drivers also affected their decision to develop their logistics unit and focus on related services.

The market demand, financial and competitive advantage drivers triggered Alpha to start transforming its logistics division and creating a platform solution that could help to

address some of the existing challenges for the actors in the industry. Such a platform was a very effective and cost efficient way to do so. For example, if one party provided consignment information to one specific driver, outside the platform the driver had to pay approximately 200-500 RMB. The price within Alpha's platform was just 10 RMB making it quite an attractive proposition to join. The platform also provided volumes and the critical mass required for a viable business for some 3PLs.

Solutions of similar nature also exist in Europe. For example, the UK-based Pall-Ex Group of Companies is ranked amongst the UK's leading logistics providers. Founded in 1996, the company works with a network of member hauliers to cover every postcode in the UK. Pall-Ex now has access to over 7,500 trucks, 450,000 m² of warehousing and has over 100 depot locations throughout the UK and Europe. With a rapidly expanding client portfolio that includes many high street retailers and household names, Pall-Ex provides full package of service logistics. Operating from a state of the art transshipment hub, the company continues to develop to be the best in the sector, harnessing technology for materials handling, online track and trace and environmental advantage. Pall-Ex is UK-based but it is rapidly expanding into Europe.

So what makes Alpha's road-port solution unique? By and large, it is the characteristics of the Chinese market. Transferring the Alpha solution to Europe or North America one-to-one would have no chance of survival. Transshipment hubs and internet-based information platforms are more widespread in Western countries. However, in China the physical platform is necessary. Credit society relying on internet is not developed in China and many transactions depend on physical infrastructure and facilities – the face-to-face mode is very important and cash-based transactions lead to deals. Therefore the physical platform provides value in this context.

Furthermore, using Oke (2007) categorization of service innovations, by looking at the solution package we can distil that Alpha was focused not only on core service product innovation, but also add-on service processes enhancing the service experience for its target customer groups. Chapman et al. (2002) refers to several types of innovation as crucial imperatives for innovation in logistics: innovation through technology, innovation through knowledge and innovation through networks. It seem seems that Alpha managed to deliver on all three types successfully coming with a transformative impact for its business model.

Within the company, the logistics unit has been getting more important. The chemical business unit, a traditional industry, remains promising, but logistics potential is increasing. The sector as whole has a long way to go in China and this fact provided Alpha with lots of new opportunities and growth potential. Currently Alpha is one of the leading players offering the industry badly needed innovative products and solutions. The goal is to achieve roughly ten times increase in the next ten years. That means that by 2025, Alpha seeks to create 100 billion revenue businesses. Currently, Alpha sees enough potential in the Chinese market and does not actively look outside the

domestic base. Nevertheless, there may be a potential for scaling up the initiative to other south-eastern Asia countries facing similar challenges in their logistics industry.

Alpha emphasized their position on the market as 'Platform operator'. As the head of the logistics unit put it: 'We are not a real logistic company'. The platform means that Alpha was not doing logistic business, but rather provided services and support to logistic companies and mainly focused on the interface between the consignment and the drivers. The service innovation in the case helped the company to create this new niche on the market with the big growth potential. However, realizing this potential faces serious challenges. Some of them can be explained by the framework of the innovation space triangle proposed by Zhu et al. (2012) (Figure 1). For developing further the company will have again to consider how to overcome cost and risk of innovation and utilize to the full extent the opportunities the scaling up of the initiative may bring. For example, in the nearest future, Alpha also set out to create the community of logistics. This would enable the company to provide better solutions for drivers and for 3PLs. The drivers could get better conditions for getting loans for the fleet upgrades and buying new trucks, tires and insurance. According to the company, many of their growth ambitions and ideas related to transformation of the industry in China require government attention pointing to the role of the central and local government as an active player, and not as peripheral contextual factor.

However, the success of Alpha, cannot be explained only by their relationship with the government. Embeddedness in the local context and its manufacturing background may help to explain, why Alpha was ahead of its Western competitors and other local logistics and service companies in coming up with the concept. In fact, Alpha did not even position itself against Western logistics giants because the road-port concept allowed it to create its own niche where it felt secure and confident. Alpha's knowledge and expertise about the local market, arguably the most dynamic and complex in the world, ensures this confidence. A good overview and understanding of 100 million players market is an asset in itself and Alpha successfully exploited it in its journey of rapid expansion. The road transportation is crucial for China and Alpha's physical platform solution contributes to solving societal needs by integrating a very fragmented market, providing important services and means for the commercial fleet upgrade. The solution is proving to be a showcase with many provinces and local governments being interested in the concept. Therefore, Alpha's ambition to have 50 operational platforms in the next ten years may be quite achievable.

Rapid growth is crucial for Alpha, because although rather secure at the moment, the niche is also open for competition. One example to mention is Alibaba's Cai Niao announcement of moving into this business in 2014. However, Alpha safeguarded itself and relies on several differentiating elements: 1) high amount of capital required—as mentioned above, establishing a physical platform require at least 500 ml RMB investment; 2)

relationship with local government; and the most crucial 3) nuanced knowledge of the industry and its demands.

As far as the characteristics of Chinese market are concerned, they can be seen as one of important drivers as well as one of critical impediments of innovation in China. As shown in the Alpha case, on the one hand, the demand of the Chinese market and increasing importance of logistic industry in China trigger Alpha's innovative logistic platform creation in China. However, on the other hand, the characteristics of Chinese market are also associated with significant challenges for further expansion of the platform which will require full mobilization of internal resources and innovative potential of the company.

5 CONCLUSION

The principal objective of the paper has been to contribute to the debates about what does service innovation entail at the company level and what are major drivers and impediments of service innovation development and implementation in Chinese companies?

By employing a case study, the paper investigates the trajectory that the company undertook in implementing an innovative 'road-port' logistics concept that was developed in the local context for solving a local problem of transparency and connectedness between track owners and 3PLs. The company succeeded in developing service innovation that generated a new niche on the market and reshaped existing ones. Our main findings demonstrate that although the institutional factors played an important role in creating conditions for the initiative, the crucial drivers of it can also be found at the company level. These included: the manufacturing background of the company and a superior knowledge of the customer needs, attention to developing a scalable and viable business model, focus on attracting and retaining new talents, continuous focus on development, founder's fostered culture that is comfortable with new ideas, change, and risk and, last but not least, the authority given to the SBU management team and their ability to translate their knowledge of the local conditions into a unique service solution that showed a shift from an imitative to an innovative mode of business thinking and practice.

On this basis, we argue that although institutional factors play an important role in transforming China into the innovation powerhouse of the Asian context, more attention should be given to the microfoundations and mechanisms at the firm level.

The study also has a number of limitations, which were beyond of the scope of this paper to address. First, rather than providing definite answers, the findings of this exploratory study should be seen as propositions which open avenues for future research on the subject. Second, there are several methodological challenges. The study is exposed to the usual limitations associated with the use of qualitative methodology based on a single case design. As the next step towards unravelling the tentative result of the paper, we consider expanding its empirical base and developing the ideas further through a multiple-case study design.

At this stage, we by no means claim that based on these results we can explain all aspects of service innovation in China. However, we believe that the findings may be useful in informing our expectations about the factors that affect successful service innovation in China.

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